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## **Detecting Social Innovation agency**

*Methodological reflections on units of analysis in dispersed transformation processes*

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## DETECTING SOCIAL INNOVATION AGENCY

### Methodological reflections on units of analysis in dispersed transformation processes

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#### KEY WORDS

*Social Innovation  
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Transformation*

#### ABSTRACT

*Considering that it is important for the social innovation research field to confront its methodological challenges, this contribution addresses the challenge of choosing appropriate units of analysis. In processes of transformative social innovation, the agency is distributed and therefore fundamentally difficult to detect and ascribe. This contribution addresses the challenge to develop methodologies that are consistent with this relational ontology, critically evaluating the three main unit of analysis choices that guided an international comparison of 20 transnational SI networks and their local manifestations. Methodological lessons are drawn on the actors that SI can be ascribed to, on the transnational agency through which it spreads and on the relevant transformation contexts involved. This provides SI research with methodological tools to handle the elusiveness of SI agency, a methodological challenge that becomes particularly pressing in attempts towards systematic comparison of cases..*

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### 1. Introduction: Elusive agency in Transformative Social Innovation

It is increasingly believed that social innovation (SI) can contribute to meeting grand societal challenges and have wider structural impacts beyond geographically confined and institutionally marginal projects (Moore & Westley 2011; Loorbach et al. 2016; Klein et al. 2016). Many researchers and practitioners have particular interests in such transformative social innovation (TSI). Apart from the potentials towards ‘humanized’ economic relations as emphasized in the Social Economy tradition (Moulaert et al. 2013), SI is currently also considered for its potentials towards systemic changes in terms of social inclusion, sustainable development and welfare state

reform (Avelino et al. 2017; Haxeltine et al. 2017). Empirical examples of such TSI are the social entrepreneurs who seek to contribute to a social or solidarity-based economy, ethical banks aimed to transform the banking sector, or seed exchange initiatives who seek to revolutionize the prevalent social relations and institutions that govern these natural resources.

In our development of TSI theory, we have therefore conceptualized SI activities as part of broader transformation processes. Social innovation initiatives can be seen to promote social relations within their Ecovillages, Hackerspaces or Transition Towns, but also beyond those immediate contexts. Crucially, their transformative significance resides in the ways which these new social relations amount to the challenging, altering and/or replacing of dominant institutions. And in turn, such processes of institutional change are shaped by broader shifts in the social-material context. As will be clarified further in subsequent sections, we thus see TSI as a multi-player game, a process in which transformative change is typically co-produced through highly dispersed agency (Pel et al. 2016; Cipolla et al. 2017).

Importantly, our relational theorization of broad TSI processes was accompanied with practical-engaged commitments. The TSI theory development was to clarify the challenges and opportunities for the individuals and collectives undertaking attempts at TSI, and to generate empowering insights for them (Avelino et al. 2017). As discussed by Haxeltine et al. (forthcoming) in this special issue, we have therefore sought to fine-tune a relational conceptual framework that would be attentive to the particular role of SI initiatives as key trailblazers of TSI. Crucially, these considerations of normative commitments and ontological assumptions forced us in turn to reconsider the methodologies through which to empirically study TSI processes: However carefully selected, would the SI initiatives be appropriate empirical entry points into these elusive realities? Which SI agents to observe and generate empowering insights for? What empirical observables do SI cases consist of? How to arrive at methodologies consistent with our ontological assumptions?

This contribution addresses the methodological challenge of choosing appropriate units of analysis (UoA) in SI research. As also indicated by Bouchard & Trudelle (2013) and Callorda Fossati et al. (forthcoming), the normative contestations and theoretical ambiguities surrounding the SI concept raise basic methodological challenges of identifying SI cases and case populations. Along a similar line of inquiry, we confront the specific challenge of making consistent UoA choices. These can be relatively straightforward when working with theories in which the principal ‘driver’ of innovation is already identified (e.g. in social entrepreneurship, ‘grassroots’ or public-sector innovation accounts of SI). By contrast, our conceptualization of TSI rather followed the theoretical and methodological interrogations raised by relational approaches such as actor-network theory (Latour 2007; Michael 2016) and the co-production of knowledge and society (Jasanoff 2004). Instead of the static and singular initiators, followers, receivers, objects and contexts of innovation presupposed in rigid methodologies, we therefore sought to be methodologically sensitive to mutually defining and intermittent entities, and to processes in which organizational boundaries are still under negotiation. More generally, we sought to account for the ways in which UoA choices slice up and thereby produce SI realities (Asdal & Moser, 2012; Law 1992; Venn et al.

2006). We address two research questions in this article: How to choose the UoA in social innovation research? Which approaches are appropriate for the investigation of dispersed transformation processes?

In the following, we critically evaluate our case research on 20 international SI networks and their local manifestations in various European and Latin American countries. After clarifying key elements of the research context that our methodology had to be consistent with (section 2), we invoke various advances towards relational methodologies to clarify our approach of embedded, fluid and provisional UoAs (section 3). Next, we describe and draw methodological lessons on three UoA choices. These pertain to 1) the puzzling co-existence of socially innovative initiatives and the SI they promote; 2) the elusive agency of locally rooted and globally connected SI networks and 3) the open-endedness of the relevant transformation contexts (section 4). Finally, we answer our research questions and discuss broader implications for SI research (section 5).

## **2. Research context: Empowering SI initiatives in dispersed transformation processes**

Our first research question has been deliberately formulated as a procedural question. Quite little can be said about UoAs that would be adequate in all kinds of SI research, but it is possible to formulate generic considerations to ensure that UoA choices are consistent with their research context. As underlined in Moulaert (2016) and Haxeltine et al. (forthcoming), methodological choices are not only intertwined with the research aims to be methodologically supported, but also with the broader process of reality construction that SI research entails. Our experiences are particularly instructive as our UoA choices needed to be consistent with three somewhat conflicting elements of the research context, namely 1) our normative commitments, 2) our ontological assumptions and 3) our ambitions towards (collaborative) comparison.

First, our research project started from normative commitments aiming to develop empowering knowledge: The developed insights should support SI initiatives in their attempts to challenge, alter, and/or replace dominant institutions (Avelino et al. 2017, Haxeltine et al. 2017). We therefore avoided the currently so popular systems-theoretical approaches (e.g. sustainability transitions, national/regional innovation systems), with their typical lesser attentiveness to the behavioural and governance aspects of situated agency (Cf. Jessop et al. 2013). Instead, our in-depth case studies were to remain attentive to rather social-psychological and organizational processes (Haxeltine et al. forthcoming). We therefore selected 20 cases of transnational SI initiatives for their apparent transformative ambitions. Taking these transnational networks and their ‘local manifestations’ in various countries as our focal actors, our empirical research has paid specific attention to the empowerment processes of governance, social learning, monitoring, and resource acquisition.

Whilst being normatively committed to closely observe the situated struggles of certain SI initiatives, we also had become aware of the theoretical reasons to de-center these initiatives from the analysis. Regarding this second issue of ontological assumptions, we had conceptualized TSI as broad, relational processes. In line with relational understandings of institutions (Emirbayer 1997;

Lowndes & Roberts 2013), the intended challenging, altering and/or replacing of dominant institutions would also be accompanied by the reproduction of those. Moreover, such processes of institutional change would in turn be shaped by broader shifts in the social-material context, such as the financial-economic crisis or the ICT revolution (Loorbach et al. 2016; Haxeltine et al. 2017). Understanding TSI as a process in which transformative change is typically co-produced through highly dispersed agency (Pel et al. 2016; Cipolla et al. 2017), our empirical investigations would have to be sensitive to this highly dispersed SI agency. In line with Lévesque (2016) we thus considered that we could follow situated SI initiatives in their attempts at making transformative impacts – yet that more macroscopic approaches would be needed to gain understanding of the initiatives' resonance with other processes of change and innovation.

Third, our UoA choices have been informed by ambitions towards comparative insight. Striving for a TSI middle-range theory, systematic confrontation of emergent theory with multiple cases would make for more solid and therefore more empowering insights (Haxeltine et al. forthcoming). In line with McGowan & Westley (forthcoming) and Geels (2007) we reached for insights beyond the short-lived and confined accounts of SI initiatives, aiming to identify patterns in SI evolution. This in turn entailed that we had to confront persistent limitations to comparability: As pointed out already by Bouchard & Trudelle (2013), the notorious ambiguity of the SI concept would also manifest through ensuing divergences in the 'casing' (Ragin & Becker 1992) of individual studies. Likewise, the comparison of TSI cases would necessarily be exploratory in character, due to the relative immaturity of SI theory (Cajaiba-Santana 2014). Finally, there was the practical circumstance that our collaborative research involved researchers from different disciplinary backgrounds and institutes. This made the challenge to establish the appropriate UoA particularly pressing: Necessities towards harmonization had to be balanced against the requisite flexibility of only 'sensitizing' (Charmaz 2006) concepts and demarcations. Our harmonized approach should still be able to accommodate a diversity of empirics and case constructions.

These normative commitments, ontological assumptions and comparative ambitions made for a research context with a degree of conflicting demands. Accordingly, the challenge of appropriate, consistent UoA choices amounted to a balancing act: SI initiatives would have to be focal actors, yet we would also observe their co-production with and embedding in wider networks. Similarly, UoA choices would have to be rigid enough to ensure comparison, but also flexible enough to retain context-sensitivity. In the next section we discuss how we have taken up this methodological balancing act by building on various advances towards relational methodologies.

### **3.0. Units of Analyses in TSI: Embedded, fluid, and provisional**

Reconsidering our UoAs for their consistency with the broader context of our TSI research, we had to confront basic questions on what, precisely, to observe in our case studies. As such, our reflections can be positioned alongside questions on the identification of SI cases (Callorda Fossati et al. forthcoming), 'systems' (Carlsson et al. 2002) and 'networks' (Venn et al. 2006), similarly

questioning common understandings of UoAs in innovation research. We reconstruct in three steps how we arrived at a case study methodology based on *embedded*, *fluid*, and *provisional* UoAs.

### 3.1. Empowering SI initiatives?

In order to meet our commitment to ‘empowering’ TSI insights, we chose extensive case study research to study this ‘contemporary phenomenon in its real-life context’ (Yin 1981:59). It also seemed obvious what SI actors and other entities to observe: Various researchers within our consortium had established relations with, or were members of, somehow ‘transformation-minded’ SI initiatives that seemed to exemplify the TSI phenomenon or aspects of it. This led us to identify a quite clear focal UoA: SI initiatives, as groups of individuals promoting certain innovative social relations, exerting collective socially innovative agency through various organizational forms (Haxeltine et al. 2017). This focus on SI initiatives was a neat UoA choice that provided our TSI research with a central innovation actor. Without such leading protagonist to follow and engage with, it is difficult to gain understanding of the passions and politics of innovation ‘journeys’ (Miettinen 1999).

Still, even if meeting our normative commitments, our action research inclinations and our need for clearly demarcated cases to compare, we soon realized that this methodological focus needed refinement. Through our relational understanding of empowerment, it became obvious that SI initiatives could not be taken as natural ‘units’ – the very capacity of diverse individuals to organize such collective action would have to be investigated. Moreover, case study handbooks advised to maintain a simple focus on just one or two key *issues* (such as empowerment), but advised against simple understandings of the UoA. The latter is ‘typically a system of action rather than an individual or group of individuals’ (Tellis 1997:4). Likewise, we came to realize that especially in research on SI and social movements (Giugni et al. 1999), ‘the boundaries between phenomenon and context are not clearly evident’ (Yin 1981: 59). In the end, we came to appreciate these points as reminders of the need to work with *consistent* UoA. In light of our ontological understanding of TSI as highly dispersed and contextual transformation processes, our methodological identification of focal agents had to be reconsidered.

### 3.2 Relational methodologies

Searching for the appropriate relational approaches to the UoA issue, the methodological sensitivity of actor-network theory (ANT) scholarship has been particularly instructive. The very concept of the ‘actor-network’ indicates a relational understanding of social reality. Notions of actors and networks are not taken as indications of ontological essences, but rather as ways of dissecting, ‘punctualising’ (Law 1992: 4/5; Latour, 1999) and ordering ever-dynamic processes of network formation between heterogeneous elements. SI ‘initiatives’ or even trans-national networks can thus be considered as singular actors (Czarniawska & Hernes 2005) as far as they are coherently represented through spokespersons or unifying banners, yet they can also be considered as networks of diverse individuals. In relational methodologies, SI initiatives are thus approached as fragile, transient ‘units’. Their collective agency can only be sustained if the relations between their diverse constituents remain harmonious despite possible internal crises – otherwise, an initiative dissolves

into its constituent parts and ceases to be an actor. Invoking various advances towards such relational methodologies, we came to an approach premised on *embedded*, *fluid* and to a certain extent *provisional* UoAs.

**Embedded UoAs.** Various moves towards relational methodologies have pointed out how the study of innovation processes involves innovation networks, within which the supposedly leading innovation champions are embedded. Relationally-approached case studies have shown innovation as highly dynamic ‘whirlwind’-like processes, in which innovation is achieved by a multitude of dispersed actors (Akrich et al. 2002; Lévesque 2016). Relational modes of investigation also underline how such processes unfold in social-material contexts in which texts, technologies, and infrastructures play significant parts (Law 2002; Law & Hetherington 2000; Sayes 2014). These often extensive social-material webs are the typical way in which relational approaches seek to unravel ‘micro-macro’ interactions: Rather than positing ‘levels’ and ‘structures’, they chart multiply embedded actors (Putnam 2013). Other particularly relevant approaches for our topic were the ‘mobile methods’ (Büscher & Urry 2009) proposed for the study of moving phenomena (like SI), the methodological focus on the currently so fast travels of (socially innovative) ideas (Czarniawska & Joerges 1996), and the idea of studying the SI initiatives as ‘translocal assemblages’ (McFarlane 2009: 562). The latter concept, expressing how locally rooted initiatives become ‘glocal’ actors by becoming internationally connected, exemplifies how relational methodologies led us to investigate the SI initiatives as *embedded* UoAs.

**Fluid UoAs.** In conjunction with this relational attentiveness to embedded UoAs, we have also approached our UoAs as fluid entities. Latour (2007) presents ANT as a critical attitude that relentlessly interrogates apparently obvious UoAs and supposedly singular causal origins. Latourian ANT is then ‘*not a theory of the social, but a suggestion for of how to study the social*’ (Czarniawska 2016:4). Michael (2016:25) similarly characterizes ANT research through its search for a basic, a-theoretical empirical vocabulary, stripped as much as possible of ontological assumptions about UoAs, entities and causal processes. This methodological sensitivity towards exploration is particularly suited for the study of innovation phenomena: Emphasizing that these are becoming realities, a relational perspective has the important methodological implication of investigating how also the innovating actors and entities themselves are subject to change (Bueger 2013:340). These relational understandings of unstable and fluid UoA further instructed us towards empirical investigations that questioned the SI initiatives as neatly demarcated prime movers of SI. On the other hand, however, the approach of ‘fluidity’ was kept in check by our commitments to systematic comparison and methodological rigour. We also realized that the fluidity was difficult to articulate: Linguistically, there would have to be discrete subjects (Emirbayer 1997) to whom the innovation could be ascribed.

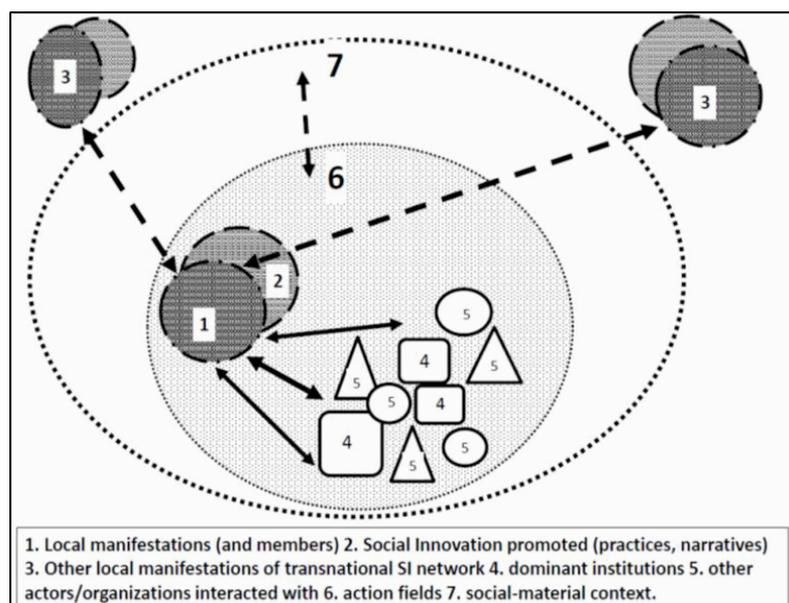
**Provisional UoAs.** We have had to balance our acknowledgement of embedded, fluid innovation actors with some stabilizing assumptions and provisional UoAs. The methodological attentiveness to fluidity ensured consistency with our ontological assumptions on dispersed TSI processes, but this rather particularistic approach did little for the desired harmonized data gathering.

Whereas relational approaches are typically deployed to unfold the complexities of single cases, our research context was rather geared towards theory-building from comparable sets of cases (Eisenhardt & Graebner 2007). Deciding to work with a set of reasonably well-defined, stabilized UoAs, we thus departed from the relational embrace of fluidity. On the other hand, our understanding of working with *provisional* UoAs still reflected the pragmatic-explorative attitude that characterizes much research in the relational mode: Considering that empirical investigation into entirely ‘fluid’, undefined UoA is practically near-impossible, assumptions are necessary. Other than rejecting the ever-arbitrary ‘punctualization’ of distributed networks, Law (1992) rather outlines how one can gain insight by exploring different tentative orderings. In this view, a UoA is the tentative assembling and holding together of contexts to describe or explain specific processes (Law & Moser, 2012: 334). To distinguish a UoA from its context is to tentatively enact a version of reality (Asdal & Moser, 2012). Working with provisional UoAs, our UoA choices thus became part of an iterative-reflexive methodological procedure. In this respect it was similar to the ‘progressive contextualization’ of Vayda (1983) and the ‘constant comparison’ between empirics and emergent categories as advocated in grounded theory (Charmaz 2006).

### 3.3. Operationalization into case research guidelines

Having developed the general relational approach, the challenge remained to translate it into operational, practical guidelines for case research in various empirical contexts. In order to enhance comparability, our guidelines for in-depth case studies on 20 transnational SI networks (Cf. TRANSIT 2017) have stipulated 7 UoAs. These are displayed in Figure 1 below. The dotted lines indicate the fluid and provisional understanding of our UoAs. Furthermore, the so crucial *relations* between entities are indicated through double arrows, and the principle of embedded UoAs speaks from the overlaps between them.

Figure 1: Units of Analysis in Transformative Social Innovation research.



The diagram contains three important UoA choices through which we operationalized our general relational approach into concrete guidelines for empirical investigation:

- 1) SI initiatives were taken as focal protagonists or spokespersons, but we also studied the socially innovative ideas, objects and activities promoted by them.
- 2) Local SI initiatives were studied as embedded UoA, as parts of locally rooted and globally connected SI networks. This served to explore their networked, co-producing agency.
- 3) The local SI initiatives were studied within the dynamic contexts that they sought to change but were also being changed by. These open-ended contexts consisted of provisional UoAs such as ‘dominant institutions’, ‘other actors/organizations interacted with’, ‘action fields’ and ‘social-material context’.

These main UoA choices bring out how our striving for a consistent relational approach eventually materialized in concrete research activities. These choices are instructive for their combinations of up- and downsides, as will be critically discussed in the next section.

#### **4. Detecting SI agency: three UoA choices**

Whilst focusing on the ‘local SI initiatives’ as the key protagonists to empower, our research context has also committed us to critically reconsider their central place in the investigation of TSI processes. Our search for a consistent methodological approach led us to work with embedded, fluid and provisional UoA. In the following, we discuss three concrete UoA choices in more detail, considering critically how they facilitated but also complicated our empirical investigations. We distil lessons on the puzzling co-existence of SI initiatives and ‘the SI itself’ (4.1), on the elusive agency of locally rooted and globally connected SI networks (4.2) and on the open-endedness of the relevant transformation contexts (4.3).

##### **4.1 The SI initiatives/‘SI itself’ dyad**

Throughout our research we have struggled to grasp ‘the SI’, both as a theoretical category and as a UoA. Just as in SI discourse more broadly, we sometimes took it to refer to certain socially innovative actors (a Timebank), but also sometimes as label for the ideas, objects and activities that these collectives were promoting (‘timebanking’). We have therefore considered various contemporary social-theoretical accounts (e.g. on co-production, on practices, on discourses) to untangle what actors, practices, narratives or other possible entities ‘the SI’ should refer to. Seeking to inform this ongoing theorizing through relevant empirics, we have approached this basic puzzle of SI agency through an embedded UoA approach. Our methodological guidelines therefore contained sempirical questions not only on SI initiatives, but also on the ‘SI itself’ – which we thought of as an ever-accompanying but not entirely overlapping part of a ‘dyad’ (Cf. figure 1). We approached the ‘SI itself’ as provisional, sensitizing UoA: Inspired by Czarniawska & Joerges (1996), we have studied it as a continuously transforming stream of socially innovative ideas, objects and activities.

This methodological distinction of the SI initiative and ‘the SI itself’ has been a quite fruitful application of the relational approach. It has helped us find out how the apparently simple unit of ‘the SI’ exists in miscellaneous forms: We saw how SI initiatives promoting the basic income and solidarity-based economy were not simply doing or ‘implementing’ social innovation, but were rather acting as vehicles for the dissemination of socially innovative discourses and narratives of change. Slow Food could similarly be seen to gain prominence through certain Slow Food initiatives, but the ‘SI itself’ also appeared to have its own life as a set of ideas and practices on alternative food consumption and production. Likewise, we observed how Hackerspaces, Fab Labs, Impact Hubs and other SI initiatives acted as concrete collectives and spaces where SI could be detected – whilst also referring to socially innovative narratives and practices with an existence apart from the associated initiatives. We thus learnt to appreciate how many SI initiatives could in fact be considered lead protagonists in SI journeys, yet not without relying strongly on the broader circulation of socially innovative discourses and practices. The latter came forward as crucial ‘macro-actors’ (Cf. section 3.2) in the formation of SI networks. The SI initiatives could nurture, influence and amplify them, but lacked full control over them.

Even if generally fruitful, the work with the SI initiative/’SI itself’ dyad has also been challenging. A first difficulty has been that it complicated the desired comparative analysis. Even if many case studies elicited the intertwined developments of the two mutually embedding UoAs, case reports displayed different foci. They often highlighted either the SI initiatives or the broader evolution of socially innovative practices and ideas. The case comparison therefore had to build on a diverse set of evidence. Second, it often proved challenging to investigate the ‘SI itself’. The problem seems to be that this UoA is not simply the counterpart to SI initiatives, but rather pertains to a diverse set of empirical observables that is difficult to demarcate: Does ‘the Basic Income’ refer to concrete proposals for institutional reform, to a new governance philosophy, or to a (hypothetical) social-economic arrangement? How to empirically distinguish an Ecovillage and the various socially innovative relations promoted through it? How to study ‘timebanking’ or ‘cooperative housing’ in their multiple forms and widely dispersed contextual translations?

The relational methodological sensitivity to the mutual embedding of SI initiatives and the associated ‘SI itself’ can therefore be considered fruitful, but it is not without its downsides. Helping to unravel the quite different SI ‘dyads’ in our 20 case studies, it crucially substantiated our emerging theoretical ideas about dispersed and co-produced agency (Cf. section 2). This work with embedded UoAs demonstrated convincingly how ‘the SI’ cannot be casually reduced to either SI initiatives or to socially innovative ideas, objects and activities. Still, the typical practical downside was that case studies became difficult to contain, due to the many entities and developments to attend to. And as case researchers were thus forced to choose their own focus and demarcations, the subsequent case comparison turned out challenging: The very basis for comparison had to be elaborated in the course of our case analyses.

#### 4.2. The translocal agency of SI networks

A second concrete application of our relational approach was to study our focal actors, the local SI initiatives, as parts of transnational SI networks. This work with embedded UoAs was to explore and unpack the theorized networked agency of SI initiatives. In line with theories on ‘glocal action’ (Gupta et al, 2007), we understood the SI initiatives as ‘locally rooted and globally connected’ collective actors, acting not in isolation but rather in networked constellations of actors. Each of our case studies was therefore built up in tripartite fashion. Featuring analyses of the transnational SI network and of two ‘local manifestations’ in different countries (e.g. Transition Towns in the United Kingdom and in Denmark, Participatory Budgeting practices in Brazil and in the Netherlands), they provided multiple ‘points of entry’ (Putnam 2013) into SI networks. In our methodological guidelines we formulated empirical questions on the interactions, the mechanisms of empowerment, and the circulation of resources involved with these broad networking processes. Taking the embedded twins of ‘SI networks’ and ‘local manifestations’ as provisional UoAs, we sought to remain sensitive to their fluidity: The networking dynamics were bound to manifest quite differently across cases.

This application of the relational approach to UoAs has turned out particularly fruitful. It has added considerable depth to our understanding of the ‘glocal’ agency in its various forms. The transnational level could take the shape of incidental policy transfer, EU-based networking or truly worldwide SI movements. Likewise, the ‘local manifestations’ could refer to SI activities of different neighbourhood, regional, or even national-level scope. Moreover, the transnational linkages proved to ‘empower’ the local SI initiatives in ways that differed significantly across cases. The empirical results crucially challenged simple and generic understandings of the kinds of empowerment at issue, unpacking it into distinct rationales of network formation such as access to international funding, construction of legitimacy, knowledge sharing, facilitation of local embedding and creation of visibility (Haxeltine et al 2017). Likewise, the reconstruction of the various network formation processes challenged easy understandings in terms of ‘franchise’ models: Sometimes the local initiatives were identifiable origins of network formation (like the Totnes Transition Town), but sometimes they rather came forward as local followers of international alliances and discourses (Slow Food, Timebanks). These relational investigations brought important nuance to our general theoretical understanding of ‘distributed TSI processes’: In some cases, the networks were indeed driving ‘powerhouses’ of transnational SI movements, but in other cases they hardly came forward as acting entities that could speak on behalf of their constituents – providing little more than ideological labels for local action.

However fruitful in several respects, the binary focus on local and global SI agents also evoked certain complications. It facilitated the detection of the dispersed and elusive SI agency, but also enacted (Cf. section 3.2) it in sometimes debatable ways. Even if methodological guidelines and discussions amongst researchers ensured reflexive awareness of the fluid and provisional nature of the local initiative/global network entities, the dual-level UoA also invited a certain reification of actors. The very distinction of two levels sometimes obscured the vast empirical diversity in

network configurations: In some cases, there were indeed distinct network organizations with international secretariats (e.g. Time Banks, Ashoka), but in other cases there was rather a more diffuse networking activity, sustained through the international contacts of individuals working for local SI initiatives (e.g. Living Knowledge and INFORSE). Moreover, the methodological set-up generated a host of borderline cases. Quite regular complications were the phenomena of multiply affiliated local manifestations, of local manifestations that resisted being labelled as members of certain transnational networks, and of overlapping or even competing transnational networks (Timebanks). In fact, even our identifications of ‘local SI initiatives’ were sometimes challenged, as our ascriptions of collective agency proved not to fit with these deliberately loose organizational forms (Hackerspaces, FabLabs).

The overall conclusion is therefore that the embedded UoA approach to ‘glocal’ SI networks has been a worthwhile reconsideration of the focus on local SI initiatives (Cf. section 3.1). Much of the agency of the latter focal protagonists would have remained obscure without this empirical sensitivity to distributed agency. Ironically however, we have also seen the downside of our dual focus: The very simplicity of the ‘local initiative’/ ‘translocal network’ distinction has introduced some insensitivity to the often even significantly more complex distributions of SI agency. This underlines the importance of approaching these UoAs as *provisional* entities.

#### 4.3 Open-ended SI transformation contexts

As discussed in section 2, our ontological assumptions required us to ‘de-center’ our main innovation protagonists by investigating how SI initiatives operate within broader co-production processes and transformation contexts. We have deliberately treated these transformation contexts as quite open-ended, formulating only some provisional UoAs as rough, sensitizing understandings of the kinds of phenomena to explore and compare. As footholds for exploration, our case study guidelines distinguished ‘dominant institutions’ (challenged by SI initiatives), ‘other actors/organizations interacted with’, ‘action fields’ as the immediately relevant context, and ‘broader social-material context’ as the general backdrop of the TSI processes (Cf. figure 1). This open-ended approach has been inspired by the typical warning in relational methodologies against structuralist enactments of relevant context (Asdal & Moser, 2012). Even if we were theoretically drawing upon more articulate understanding of contexts in terms of dominant ‘regimes’ and hegemonic structures, we sought to avoid premature assumptions about such structures. Instead, we sought to work with more fluid UoAs and accordingly dynamic and less clearly structured transformation contexts, similar to the ‘arenas of development’ approach of Jørgensen (2012). This choice was also informed by our consideration that there is as yet no extensive body of knowledge on TSI to base more specific UoA choices on. This called for an explorative approach as well.

Our open-ended approach to ‘context’ has in fact delivered some of the typical fine-grained insights, highlighting the diversity of contexts in which SI initiatives operate. With regard to the ‘dominant institutions’, the key element of transformation contexts typically challenged by SI initiatives, our initial theoretical projections were enriched in several aspects:

- The relations of SI initiatives with their institutional contexts turned out to be seldom as adversarial as suggested by many theorizations along the ‘challengers versus incumbents’ scheme.
- Many initiatives did not emerge within literal institutional voids, but often developed and sustained themselves by drawing upon their institutionally abundant settings – collaborating and co-creating with public authorities, universities, NGOs, etc.
- Whilst some initiatives displayed intensive dialectical confrontations (Argentinean cooperatives, ethical banks), others rather seemed to exist as parallel and relatively self-contained ‘shadow systems’ (Ecovillages, Timebanks).

Importantly, our investigations of transformative contexts explored diverse networks and institutional constellations, rather than assuming monolithic systems and deterministic path dependencies. Postponing theorizations on possible driving factors and transformation pathways, our explorations thus remained sensitive to the broad variety of socio-economic and social-psychological motives underlying the agency of SI initiatives.

We have also encountered the downsides of our open-ended approach, however, which to some extent were inherent. Our empirics reflected the general difficulty in relational modes of investigation to account for no longer fluid and dominating social structures, i.e. the processes occurring ‘behind the backs’ of SI initiatives (Lévesque 2016, see also Haxeltine et al. forthcoming). Apart from the great attention to the internal processes within SI networks, most case studies have focused on the context of ongoing interactions with organisations, institutions and discourses in the relatively immediate surroundings. Generally, the case studies thus told little about the path dependencies and political-economical processes through which SI initiatives gained traction or not. Even if various relevant observations have been made on societal ‘game-changers’ such as rising structural unemployment (Basic Income), the 2008 economic crisis (ethical banks), Peak Oil (Transition Towns) or the market breakthrough of renewable energies (INFORSE), these observations also reminded of the limited availability of historical data in most cases. In turn, this revealed our strong reliance on data gathering through interviews and (participative) observation, typically staying close to the focal UoAs.

In conclusion, the work with open-ended transformation contexts has done important explorative work in helping to bring out the greatly different modes of existence that SI networks have in society. Focusing on the relatively immediate surroundings of SI initiatives, it has provided empirical insights in the ‘arenas’ and ‘action fields’ of SI. This has helped to meet our striving for empowering knowledge. Still, the relatively ‘inward’ focus on SI in-the-making has only partly satisfied the theoretical interest in broader co-production processes, leaving little empirical basis for systematic comparison of historical paths and mechanisms. Part of this is due to issues of data gathering techniques, time and resource constraints and limited availability of historical data. It also reveals a certain methodological trade-off, however: The methodological acknowledgement of fluidity tends to undermine the search for explanatory context variables.

## 5. Conclusion: UoA choices and research contexts

This contribution has described our methodological struggle with an issue that arguable has broader relevance for SI research: Seeking to develop empowering knowledge on transformative SI processes, we ran into the circumstance that this agency is difficult to detect. Once taking the insight seriously that TSI involves broad processes of changing social relations in which agency is distributed, important conceptual and methodological challenges arise on the observation of SI agency. We have therefore raised two research questions (**section 1**): *How to choose the UoA in SI research? Which approaches are appropriate for the investigation of dispersed transformation processes?*

We have deliberately provided a procedural answer to the former question. Clarifying the kinds of considerations underlying UoA choices, our methodological reflections become more transferable to other research contexts. We have underlined that the key to UoA choices resides in the consistency with the broader research context that the methodological choices are to serve. In this regard we have identified 1) normative commitments, 2) ontological assumptions and 3) ambitions towards comparison as particularly important elements of the research context (**section 2**).

Our own attempts to make such consistent methodological choices were strongly driven by the ambition to support our emerging relational theoretical framework with an accordingly relational approach. Engaging with various advances towards relational methodologies, we have arrived at an approach of *embedded, fluid and provisional* UoA. Crucially, we have subsequently translated these general principles into operational guidelines for case research (**section 3**).

As these further operational choices are ultimately determining for the methodological consistency, we have discussed three of those concrete UoA choices in more detail. Critically evaluating both their bright sides and their shadow sides, we arrived at the following methodological reflections:

- 1) The empirical attentiveness to the SI initiative/SI ‘dyad’ has proven to be a fruitful application of the idea of embedded SI agents. Our empirical insights have brought significant nuance to the basic concept of ‘the SI’ – which cannot be simply taken to refer to either SI initiatives or the ideas, objects and actions that they promote. As typical downsides, this relational approach is quite laborious and demanding on the researcher, and the relative lack of a stable empirical focus poses challenges to systematic comparison (**section 4.1**).
- 2) The exploration of ‘glocal’ SI agency through the twin UoAs of transnational SI network and local SI initiatives has similarly proven valuable in clarifying SI agency as *networked* agency. It has helped to unpack the specific ways in which transnational networks empower SI agency, identifying different patterns of network formation and the associated agency through networked ‘macro-actors’. This exploration of actor relations challenged various theoretical assumptions about TSI agency. A downside of the work with the ‘transnational’ and ‘local-level’ SI agency is however that these twin UoAs are easily reified – if forgetting about the provisional status of this two-level heuristic, it even starts to obscure the complexity of SI networks (**section 4.2**).
- 3) Finally, the work with an open-ended notion of transformation contexts has provided useful empirical insights in the ‘arenas’ and ‘action fields’ of SI. The explorative approach brings important nuance to

overly schematic theoretical assumptions about the transformation contexts in TSI processes, such as those premised on a ‘challengers versus incumbents’ juxtaposition. On the other hand, our reflections confirm how the sensitivity to fluidity comes with a methodological trade-off: Leaving relatively little empirical basis for systematic comparison of historical paths and mechanisms, it becomes somewhat more difficult to provide firm accounts of what ‘happens behind the backs’ of situated SI initiatives (section 4.3).

The identified upsides and downsides of our UoA choices also have broader implications for SI research. As argued above, this is not a matter of wholesale adoption, but rather of fine-tuning and adaptation according to the demands set by other research contexts. The following two avenues for methodological advances deserve particular consideration:

First, it has become obvious how the fruitfulness of a relational approach to the UoA issue depends much on the ambitions towards comparative insight. Considering that there is still much to explore about the complexity of SI phenomena, there are good reasons to push the relational program further. It could be exploited through in-depth case studies, disclosing for example in further detail how a certain socially innovative practice is circulating in society (Cf. section 4.2). On the other hand, there are also strong comparative ambitions in SI research, involving efforts towards explanatory theory (Haxeltine et al. forthcoming), mapping (Pelka & Terstriep 2016; Schröder et al. forthcoming) and longitudinal research (McGowan & Westley forthcoming). For such ambitions towards systematic comparison, a degree of stabilizing assumptions and complexity-reduction is necessary (Eisenhardt & Graebner 2007). In this regard our experiences remind however that it is not only the question how much embeddedness and fluidity a comparative research design can bear, but also how much it *needs*. Promising ways of striking such balance between particularism and crude generalization are Qualitative Comparative Analysis methods (Byrne 2005) or multiplicity-oriented approaches (Pel 2014).

Second and finally, there are various avenues for methodological fine-tuning regarding the issue of empowerment in distributed SI processes. This issue became particularly pressing in our research context, in light of our ontological assumptions of broad, distributed TSI processes. Arguably it is pervasive in SI research more generally, however: Considering that strong commitments to developing empowering knowledge are rather inherent to SI research (Moulaert & van Dyck 2013; Jessop et al. 2013), it is accordingly important to account for the ontological assumptions and UoA choices through which SI realities are ‘punctuated’ (Law 1992) and ordered. Casting certain groups of actors as lead protagonists and innovation heroes (Meijer 2014) whilst backgrounding others, we have shown how these choices are neither obvious nor innocent: Our distinction between ‘local manifestations’ and ‘transnational networks’ helped to elicit the typically distributed SI agency, but as a simple dichotomy it also obscured some aspects of it. It is therefore worthwhile to develop methodologies in which the principal SI agents are not presupposed, acknowledging that they are often *yet to be detected*.

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