

Towards a TSI theory: a relational framework and 12 propositions

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Abstract

This paper makes a contribution to the identified need for conceptual clarity and new theory on social innovation. Specifically it addresses *transformative* social innovation (TSI), defined as the process of challenging, altering, or replacing the dominance of existing institutions in a specific social and material context. Social innovation initiatives and networks are understood as the key collective actors that instigate TSI processes. They do not all start out with transformative ambitions however. Of those that do, only a few eventually achieve transformative impacts; indeed there are many risks of capture and co-option along the way. A relational framing is presented as the most suitable way to theorise the emergent and multiply embedded nature of SI initiatives interacting with changing institutions, where organizational and institutional boundaries are often fluid and under negotiation. To develop *middle-range* theoretical insights on TSI, we conducted an empirical study of 20 transnational social innovation networks and about 100 associated social innovation initiatives over a four-year period. The resulting contribution towards the solidification of a theory of TSI, consists of three layers: firstly, the research design and methodology employed; secondly, a relational framework for TSI that articulates four key 'clusters' of (inter)relations in TSI processes; and, thirdly, a solidifying and iteratively developed set of theoretical propositions on TSI processes. These propositions articulate the complex and intertwined process-relations of TSI, based on our study of the empirics. The paper ends with an assessment of the contribution of this TSI-theorising, and a discussion of the challenge of further developing TSI theory.

Key words: social innovation, transformative social innovation, middle-range theory, theory-building, reflexivity, process theory, relational theory

1. Introduction

The concept of social innovation (SI) has received much interest in recent years, both in the academic study of innovation and in various policies of innovation and social change (Pol and Ville, 2009; Cajasanta, 2014; Bonifacio, 2014; van der Have and Rubalcaba, 2016; Avelino et al. 2017). This interest in SI fits in turn with the broader trend of increased interest in innovation phenomena beyond the traditional focus on technological and product innovations, as reflected in new narratives of innovation (Strand et al. 2016), and in reflections on the innovation society (Hutter et al. 2015; Godin and Vinck 2017) and innovation politics (Perren and Sapsed 2013). So far, SI scholarship can be characterised as an emerging body of theory and practice that has its roots in a number of different social science disciplines (McGowan and Westley 2015), and that is still characterized by “conceptual ambiguity” and a diversity of research approaches (van der Have and Rubalcaba, 2016: 1923) as evidenced by the current plethora of new approaches and frameworks (e.g. Pol and Ville, 2009, Moulaert et al., 2013; Moulaert and Van Dyck, 2013; Cajasanta, 2014; Howaldt and Schwarz, 2016, Klein et al., 2016).

Currently there are therefore widely shared ambitions to ‘move the field forward’ (Cajasanta, 2014) and progressively achieve theoretical and conceptual coherence, so as to better inform research, policy and practice (McGowan and Westley 2015, Cajasanta, 2014, van der Have and Rubalcaba, 2016). Balanced against this are also claims that a diversity of theoretical approaches to SI may in fact be considered desirable, reflecting the field’s openness to experimentation at this stage (Moulaert et al., 2017). Nevertheless clear theoretical ‘needs’ can be identified on three distinct fronts. Firstly there is a need to move beyond anecdotal and fragmented empirical evidence (McGowan and Westley, 2013; Wittmayer et al. 2017) towards the development of generic insights on the mechanisms and processes underlying SI dynamics and agency. Secondly, there are calls for SI theory to account for ‘empowerment’ mechanisms (notably from BEPA, 2011), but, considering that teleological, idealist assumptions of SI as an unambiguous instrument are in practice unwarranted (Cajasanta 2014; Haxeltine et al. 2017b), there are also calls for a more fundamental consideration of the associated ‘shadow sides’ of disempowerment (Swyngedouw 2005; Avelino et al. 2017) and ‘capture’ through vested interests (Jessop et al. 2013; Pel and Bauler 2017). The current widespread belief in SI as a means to address urgent societal challenges, is matched by deep concerns in some quarters that, considering the persistence and systemic complexity of current societal challenges, the actual potential of SI as ‘panacea’ is not at all self-evident. Hence, there is thirdly a need for deeper theorization of the dynamic interactions between SI initiatives and broader processes of innovation and *transformative change* (Murray et al., 2010; McGowan and Westley 2015; Klein et al., 2016).

In general terms *transformative change* is understood as a persistent adjustment in societal values, outlooks and behaviours of sufficient ‘width and depth’ to alter any preceding situation in the social and material context (Haxeltine et al. 2016). In this paper, we theorise transformative change specifically in terms of institutional dynamics. We frame the theoretical challenge of explaining transformative social innovation (TSI), which we define as the process of challenging, altering, or replacing the dominance of existing institutions in a specific social and material context. SI initiatives and networks are understood as the key collective actors that instigate TSI processes. However by no means all of them start out with transformative ambitions; and of those that do, only a few eventually achieve transformative impacts. Indeed there are many risks of capture, co-option, and dilution along the way. Accordingly, in this paper we speak of TSI *processes*, in which SI *networks*, *initiatives*, and *people* are the main protagonists but not the exclusive ‘drivers’. Types of SI initiative and network of relevance to our study include: ‘solidarity economy’ initiatives, ‘sharing economy’ initiatives, ‘cooperative movements’, ‘agro-ecological’ movements such as ‘Slow Food’, ‘maker spaces’, and ‘transition town’ initiatives.

Considering how the above calls for ‘solidified’, ‘empowering’, and ‘transformative’ SI theory actually go hand in hand, we take the position that ‘empowering’ SI theory needs to reflexively account for the broader transformation processes with which situated, confined and not necessarily transformative SI processes co-evolve (cf. North 2014; Lévesque 2016, van der Have and Rubalcaba 2016; Schubert 2017). In developing a *middle-range* theory that takes into account contemporary debates on transformative change (Jasanoff 2004; Sewell 2005; Grin et al. 2010; Geels 2010; Garud and Gehman 2012), we focused on the following dual research questions: *How do transformative social innovation processes lead to transformative change? How are social innovation networks, initiatives, and people (dis)empowered in these processes?* In addressing these questions, we present a set of middle-range theoretical insights on TSI, organised around three ‘layers’: firstly, a bespoke theory-building research design and methodology; secondly, a relational framework for TSI, that situates key concepts in a relational ontology and identifies four ‘clusters’ of TSI relations; and, thirdly, a solidifying and iteratively developed set of theoretical propositions on TSI, that orders the complex and intertwined sub-processes and relations of TSI, based on our study of the empirics.

The remainder of this paper is organised as follows. In the next section the underlying research design and methodology are briefly described, including the choice to use a relational approach (**section 2**). Next, the relational framework for TSI is presented (**section 3**), followed by an account of the interrelations of the TSI process (**section 4**). Finally, the resulting contribution towards the solidification of a TSI theory are assessed and brief conclusions provided (**section 5**).

2. Methodology: an iterative research design for the theory-building

The development of TSI theory that is both practically useful and theoretically ‘solidified’ requires reflection on the ontological and normative assumptions that have shaped SI discourse thus far. In line with recent methodological and meta-theoretical discussions on transformative innovation, we sought to identify the various theoretical and associated methodological pitfalls involved in TSI theory-building, and developed a methodological approach and theoretical framing accordingly. While more detailed accounts of our core theoretical and methodological choices can be found in Haxeltine et al. (2017b) and Pel et al. (2017b), we briefly present here the methodological and theoretical choices that framed the development of a relational framework for TSI (see section 3) and set of theoretical propositions on TSI (see section 4).

In line with similar endeavours in transformation-oriented strands of SI research (e.g. Howaldt et al. 2012; McGowan and Westley, 2015; Lévesque, 2016) and transitions research (e.g. Geels 2007; 2010), and as a tried and tested approach to theory-building in the social sciences (e.g. Hedström 2005), we started from the position that solid and empowering theorization of transformative innovation requires the application of a middle-range theory (MRT) approach. MRT starts, in essence, with a basic empirical understanding of the phenomenon to be addressed, and then abstracts from it to create more general statements that can be further verified by data. In theorising TSI then, the need was to work towards *generic* understandings of the dynamics and agency in TSI processes. As stressed by Lévesque (2016) there is a need to move SI research beyond the intricacies of situated and confined innovation journeys. Howaldt et al. (2012) and McGowan and Westley (2015) amongst others have argued for solid SI theorization through systematic comparison of larger numbers of cases. We also noted how unwarranted assumptions are easily introduced through overreliance on particular types of case. In implementing a middle-range theory approach in our research design then, we noted that it was crucial to both build on a broad variety of cases, and to study their wider contextual relations.

In line with the pioneering work of Moore et al. (2012), and Westley et al. (2017), we approached TSI as made up of highly dynamic processes, requiring analytical sensitivity to different phases and turns, and requiring the gathering of process data. As discussed in Haxeltine et al. (2017b) and Pel et al. (2017b), our preliminary theoretical reviews highlighted the need to avoid substantivist assumptions about SI initiatives and networks. The development of an empowering TSI theory would crucially require a proper understanding of the relations between situated innovation agency and broader processes of social transformation (Lévesque 2016). SI initiatives, as emergent collective actors, are multiply embedded; they are both locally rooted and transnationally connected. They must operate, and constantly adapt, in a context of multiple *intertwined* fields or arenas; not monolithic ‘regimes’ or ‘systems. The institutional context is also not static but undergoing transformation, so a TSI process is in fact just one change process amongst many (and diverse) interacting change processes. Organizational and institutional *boundaries* are still under negotiation as the TSI process unfolds; much TSI takes place in the hybrid institutional sphere. Recognising these salient features of TSI processes, we chose to use a relational framing as the most suitable foundation in our TSI theorizing (Emirbayer, 1997). A relational approach was used as a basis for our theoretical framing of TSI, and also provided an integrative platform for the use of theoretical concepts drawn from different fields (see section 4).

These choices resulted in an overall research design that was grounded in an MRT approach—and the gradual solidification of theoretical conjectures into empirically informed/tested propositions—but also informed by a relational awareness of emergent entities, recursiveness, and the associated risks of prematurely adopting concepts/constructs as ‘solid’ (the fallacy of reification, see Haxeltine et al., 2017b). This approach was implemented within a four-year research project (“TRANSformative Social Innovation Theory”), where researchers from 12 research institutes collaborated in the study of 20 transnational SI networks and over 100 ‘local’ SI initiatives across 27 countries. The networks that studied included, Ashoka, Basic Income, Credit Unions, FABLABS, Global Ecovillage Network, Hackerspaces, Slow Food, Shareable, Impact Hub, Time Banks, and Transition Network; see Jørgensen et al. 2016, for an overview of all cases). The typically iterative theory-building procedure of MRT was then implemented through three distinct phases of empirical research and theory-development. Each was structured according to a set of sensitizing concepts and emergent categories of TSI, and the identified empirical commonalities and differences within the sets of cases studied in turn informed the elaboration, refinement, or rejection of initial hypotheses. These consisted of a set of in-depth case studies covering some 20 SI networks, and 40 local manifestations (see Jørgensen et al., 2014; 2015; 2016), together with a meta-analysis of the development processes of SI initiatives, focusing specifically on ‘critical turning points’ (CTP) experienced by them, as identified through development of a database of some 450 CTP accounts across some 80 SI initiatives (Pel et al., 2017a).

We chose to articulate tentative and preliminary explanations of different aspects of TSI in the form of theoretical propositions about the interrelations of TSI processes (inspired by e.g. Fligstein and McAdam 2011). These propositions were used to articulate tentative explanations of TSI, and were developed through a series of theory-building workshops at which we brought together the empirics and theory development work. The collective comparison and evaluation of emergent generic insights was used to identify empirical commonalities and differences across the set of cases, in turn informing the elaboration, refinement, or in some cases rejection of initial propositions. Thus while empirical examples are sparingly used in presenting the propositions in section 4, the larger dataset underpins their articulation. The propositions served both the synthesis of generic insights and generation of further questions (Haxeltine et al., 2017a). Over the course of this iterative procedure, the propositions became more specific and mutually complementary. Taken together, they provide a tentative description of interrelations and sub-processes of TSI; although presented in brief in section 4, each has been further articulated elsewhere (Haxeltine et al 2017a), and, as a set they point to how contributions from different research fields can be integrated through the relational TSI framework.

3. A relational framework for transformative social innovation

3.1 A relational approach to TSI

Adopting a middle-range theory approach implied a commitment to learning from empirical cases, including the iterative development of a suitable theoretical and conceptual framing of TSI. This called for critical engagement not only with SI scholarship (Swyngdouw, 2005; Pol and Ville, 2009; Cajaiba-Santana, 2014; Bonifacio, 2014; van der Have and Rubalcaba, 2016; Marques et al., 2017; Edwards-Schachter and Wallace, 2017), but also with broader theoretical discussions on how such processes of innovation and transformation can be theorized (Garud and Gehman, 2012; Geels, 2014; Sewell, 2005; Jørgensen, 2012; Swyngedouw, 2005; Levesque, 2013, 2016; Jessop et al., 2013; Funfschilling and Truffer, 2014; Jasanoff, 2004).

As introduced in section 2, we adopted a relational approach in theorising TSI processes. In recent years, relational approaches have been developed in many social science fields including sociology (e.g. Emirbayer, 1997) and in institutional theory (Lowndes and Roberts, 2013), as well as through Actor-Network Theory (ANT) and relational co-productionist approaches (Jasanoff, 2004; Chilvers and Longhurst, 2015; Chilvers and Kearnes, 2016). We applied a relational 'worldview' specifically to framing the phenomenon of TSI, rather than starting from any one particular pre-existing relational tradition. Acknowledging the current conceptual fragmentation in the SI field and also recognising SI as a multi-level phenomenon (Dawson and Daniel, 2010; van der Have and Rubalcaba, 2016) which can usefully be informed by multiple relevant intellectual communities, we employed the relational framework to adapt theoretical resources from different fields, in order to develop a theoretical and conceptual framing of TSI that addressed all relevant aspects.

The value in adopting a relational ontology (Emirbayer, 1997) lies in the acknowledgement of the embedded, situated, nature of agency in TSI processes (Haxeltine et al., 2017b; Pel et al., 2017b). In current SI discourse, SI agency is often attributed rather exclusively to certain actors, such as citizen's initiatives, social entrepreneurs, or social niches, etc. As articulated in relational approaches, agency in TSI is more accurately understood as distributed across 'webs' or 'networks' of social and material relations. Responding to the interrogation of SI agency by Nicholls and Murdock (2012), a relational ontology helps to articulate how SI initiatives as configurations of social relations are transformed through the actions of other configurations.

We therefore approach social innovation (SI) as a process of introducing new social relations, involving the spread of new knowledge and new practices. Understood in relational terms, SI is also a qualitative property of ideas, objects, activities, and different groupings of people. A SI initiative is a collective of people working on ideas, objects or activities that are socially innovative, and a SI network is a network of such initiatives. By framing SI as fundamentally about a process of changing social relations, we emphasise that is not simply about the achievement of individual innovation champions, and that 'innovators' and 'innovations' are mutually defining and intermittent entities. SI initiatives are multiply embedded actors: locally rooted and transnationally connected. Organizational and institutional boundaries are still under negotiation as the SI process unfolds; and much SI takes place in the hybrid institutional sphere. SI initiatives and networks are key trailblazers of SI, but they are transient, fragile entities and their collective agency is permanently under negotiation. The dominance of institutions is exerted by 'constellations' of institutions, which are ultimately reproduced by individuals. SI takes place through multiple and intertwined 'action fields' or 'arenas': not monolithic 'regimes' or 'systems'. Whether a practice is understood as 'innovative' or not is historically shaped, i.e. it is context-dependent.

3.2 Theoretical considerations concerning four 'clusters' of TSI relations

We identified four 'clusters' of TSI relations, addressing different 'levels' or 'sub-processes' of TSI: a) the relations within SI initiatives; b) network formation processes; c) institutionalisation processes; and, d) the shaping of SI through the broader sociomaterial context. These four clusters provided a useful way of structuring both the theoretical and conceptual framing, and the development of theoretical propositions (see section 4). Accordingly, four key theoretical considerations concerning a relational framing of TSI were formulated: 1) explaining the empowerment of people and collectives in TSI; 2) explaining network formation processes; 3) explaining institutional dynamics, and, 4) accounting for the shaping role of the sociomaterial context in TSI processes.

The empowerment of people and collectives in TSI processes. TSI theory should account for the micro-level processes involved in the formation and development of SI initiatives (Haxeltine et al., 2017b; Moulart et al., 2017). There is also a need to link the micro-dynamics within initiatives to the wider TSI dynamic, and especially to account for (dis)empowerment processes as they play out across the individual, group, initiative, and network levels (Cajaiba-Santana, 2012; Avelino et al., 2017). There is a need to account for the typical mixes between cooperative but also contesting interactions, and to the empowerment 'paradoxes' of capture and transformation, inclusion and exclusion, emancipation and discipline (Swynedouw, 2005; Moore et al. 2014; Pel and Bauler, 2017). Social psychology insights are particularly important in theorising TSI empowerment in relational terms: the agency of SI initiatives cannot be adequately explained without considering the reasons individuals have to join them, their collective development of shared identities and visions of change, and the organizational forms through which SI initiatives continue to provide and evolve satisfactory environments for their individual members. Empowerment is not a fixed state but rather a dynamic process (Rappaport, 1987; Zimmerman et al., 1992; Perkins and Zimmerman, 1995) that depends on various enabling conditions that allow individuals and groups to generate and maintain the psychological and motivational resources to pursue goals that matter to them. Enabling conditions include certain qualities of interpersonal relations, organizational forms that support autonomous motivation, and the articulation of a common identity. At the individual level we frame empowerment as the process by which people *gain the ability to act on goals that matter* (Sen, 1985; 1999; Alkire 2005, 2007). Empowerment at the individual level is conceptualised in terms of the satisfaction of *basic psychological needs*. Self-determination theory (Baumeister and Leary, 1995; Ryan and Deci, 2000; Grouzet et al., 2005) has documented the cross-cultural existence of three basic psychological needs: *autonomy*, the freedom to act in accordance with authentic interests, values or desires; *relatedness*, as feeling a sense of belonging to a social group; and, *competence*, as the perception of effectiveness in carrying out actions to achieve one's goals. The interpersonal relations negotiated (e.g. open communication, or experimenting attitude) and the organizational forms developed by SI initiatives (e.g. Hackerspaces, sharing circles, cooperatives) in part serve to satisfy these needs, which in turn impacts on motivations and agency. An important observation is that SI initiatives often strive to create spaces where individuals can feel empowered, as well as striving to generate collective empowerment.

Network formation processes. Empowerment processes also play out at the level of the SI initiative or network as collective actor. A balanced account is therefore needed of the multiply embedded nature of the agency of SI initiatives and their constituents. Through this typically relational emphasis on satisfying and enabling organizational forms, the social-psychological account sketched above combines well with insights from organizational theory, network governance and ANT on the empowerment of SI initiatives. Collective empowerment through network formation is emphatically a sociomaterial process that revolves around access to resources (Koppenjan and Klijn, 2004), implies the mediation by various non-human 'actants' such as discourses and communication infrastructures (Pel and Backhaus, 2017), and relies on socio-spatial relations (Cipolla et al., 2017). The need for network formation and the earlier-mentioned appropriate organizational forms reflects the points by

Stirling (2016) and Smith (2017) on T/SI as crucially involving a *democratisation* of innovation: involving intertwined, nested empowerment processes at various levels of aggregation.

Institutional dynamics. As convincingly argued by Cajaiba-Santana (2014) and van der Have and Rubalcaba (2016), amongst others, institutional dynamics are crucial in explaining SI processes. Institutions provide: prescriptions, cognitive models (frames with tacit assumptions and schemas), identities and roles, and arrangements (family, clubs, work organisations, platforms, communities) that help individuals to make sense of the world, identify options, and take action. In line with Cajaiba-Santana (2014), SI initiatives are acknowledged as potentially working to change/transform both *formal* institutions and *informal* institutions. SI processes revolve around the recursive relations between SI actors and institutions (Cajaiba-Santana, 2014). TSI theory should explain “how social innovators adapt their strategies to cope with the constraints of the institutional environment” (van der Have and Rubalcaba, 2016: 1933), and how social-value creation opportunities are constructed through multi-stakeholder and multi-level institutional settings (ibid). As introduced in section 1, we framed Transformative Social Innovation (TSI) as a specific type of SI process that involves challenging, altering, or replacing of the *dominance* of established institutions in a specific sociomaterial context. Not all institutional change can be considered as transformative change: the transformative aspect refers to the extent to which the dominance of existing institutions is being challenged, altered, or replaced. As such, the distinction between transformative change and (non-transformative) institutional change is a matter of degree. Contemporary institutionalism is particularly useful in this regard by approaching this dominance as a matter of degree. Consistent with our overall relational approach, institutions are also theorised as emergent, constantly negotiated entities rather than unmovable, monolithic blocks (Emirbayer, 1997). Following Sewell’s (2005) transformation-oriented adaptation of structuration theory, and also ‘third phase’ institutionalism (Lowndes and Roberts, 2013) insights, TSI theory should reflect how there is often not one singular dominant institution guiding a particular aspect of social life. It is, as Fuenfschilling and Truffer (2014) held against overly crude understandings of dominant ‘systems’, largely a matter of empirical attentiveness to the overlapping and intersecting institutional constellations that exert dominance. Sewell (1992; 2005) argues that these very intersections provide strategic opportunities for actors promoting institutional change.

Accounting for the role of the sociomaterial context in TSI. As stressed by critical scholars, there is a need to better account for the patterned realities and path dependencies in TSI processes. Especially the recent rise of SI discourse as a Big Society project and tool for addressing grand societal challenges has been criticized for its neglect of the ways in which SI itself is shaped by entrepreneurial-individualistic theories of change (Jessop et al., 2013) and neoliberal ideologies (Swyngedouw 2005; Fougère et al., 2017). Laville (2016) points out how this betrays the historical roots of many SI initiatives in radical social movements. Such (neo-)Marxist reminders of historically emerged structures of domination need to be balanced however against a relational awareness of the often highly contingent and fluid nature of TSI processes. Premature assumptions about entities, levels and mechanisms tend to obscure the agency, contested arenas and institutionalization dynamics through which transformations come about (Jørgensen, 2012, Fuenfschilling and Truffer, 2014). Geels (2002; 2007; 2010) has clarified in this regard how the ‘flat’, relational ontologies would crucially need further articulation of structuration ‘levels’. Accordingly, TSI theory should account for the meso-level dynamics through which transformation processes unfold. A useful way forward is to account for diverse (Stirling, 2011) SI ‘action fields’ (Fligstein and McAdam, 2011) or ‘arenas’ (Jørgensen, 2012), through which the meso-level dynamics of a TSI process unfolds, and which initiatives typically have to ‘navigate’ or ‘play into’. A significant part of what SI initiatives do can be understood as working with the path dependencies in the SI action field as a whole: acting as ‘institutional entrepreneurs’ and ‘systems entrepreneurs’ (Olsson et al., 2017). This requires an analysis of relevant path dependencies on their part, as well as adequate ‘theories of change’ to inform the formulation of strategic actions.

3.3 Conceptual framing overview

Fig. 1 depicts the dynamic, recursive relations between SI and the social and material (sociomaterial) context. TSI exists in a reciprocal relationship with the transforming sociomaterial context: TSI individuals, initiatives and networks shape, and are also shaped by, changing social relations and associated institutional dynamics. Reflecting our key theoretical considerations on structuring and institutionalising processes, this ‘double arrow’ was further articulated through the four clusters of process-relations; conceptualised as interlinked processes at different aggregation levels, they help in understanding and explaining the dynamics and agency of the *TSI process*.

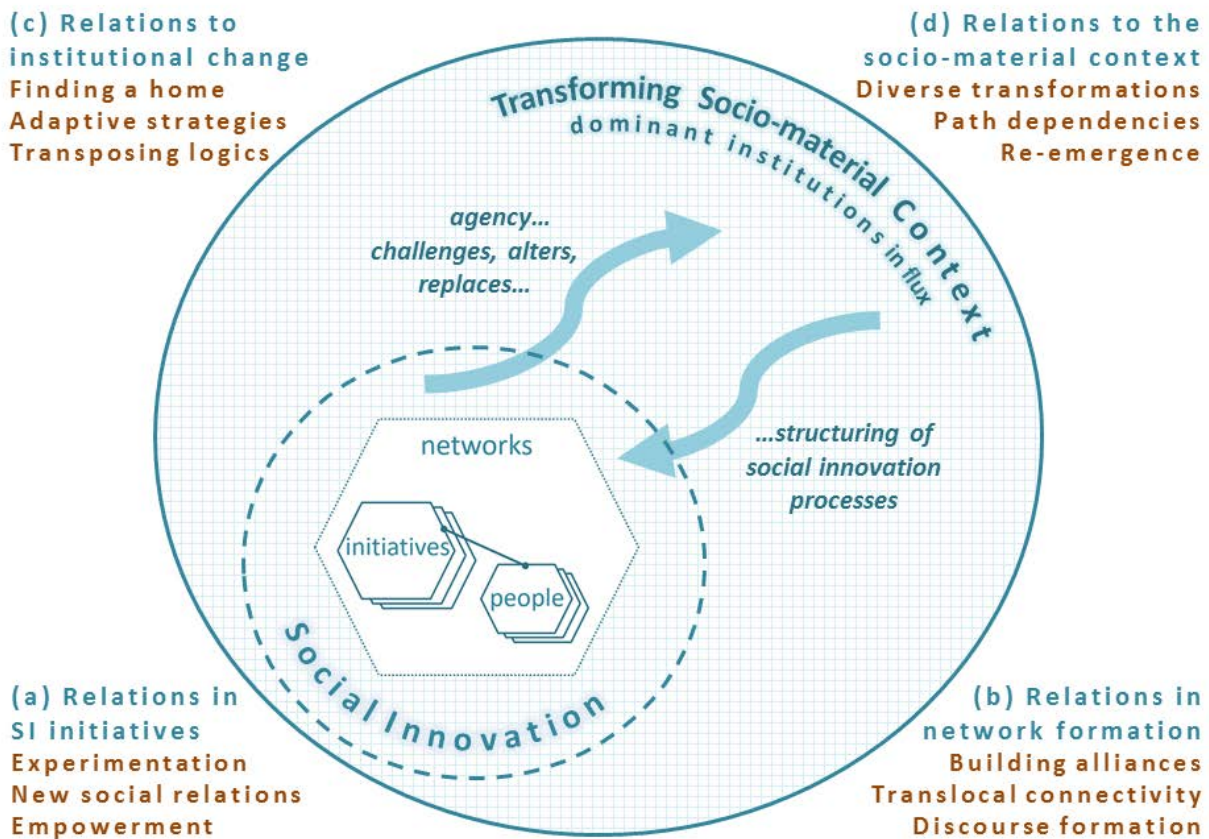


Fig. 1. A TSI process and its interlinked dynamics.

Starting from *a) relations in SI initiatives*, the diagram conceptualizes how TSI processes presuppose individuals motivated to form SI collectives, responding to a recognition of new or alternative values, engaging in processes of experimentation and becoming empowered to influence change (section 4.2). Intertwined with this are processes of *b) network formation* with other SI initiatives and related SI actors. Similar to the development of empowering ‘niches’, as theorized in transitions research (e.g. Smith and Raven 2012), SI initiatives tend not to work in isolation; they typically have to navigate dynamic ‘action fields’ or ‘arenas’ of development, and find allies (section 4.2). These processes of network formation are in turn linked up with processes of *c) institutional change*. SI initiatives seek to develop new knowledge and new practices that address an identified need or vision, and in doing so make use of available resources and are conditioned (both enabled and constrained) by institutions (section 4.3). The possibilities for TSI to emerge and flourish are strongly shaped by longer-term developments in *d) the sociomaterial context*, involving the evolutionary dynamics of path dependencies, patterns of re-emergence, and diverse transformations (section 4.4).

4. Twelve Theoretical Propositions on the interrelations of TSI processes

In this next section we further explore the TSI (inter)relations that we identified in our set of empirical cases. What follows is a narrative account of the relations involved in an unfolding TSI process, as a way to convey the relational, processual understanding of TSI. The account is organised according to the four ‘clusters’ of relations articulated in section 3, and presents three theoretical propositions for each cluster (see also fig. 1). We do this following our central research questions on the empowerment of SI initiatives and networks in TSI processes, and in line with our recognition that explaining TSI requires a comprehensive account of the relational interactions across all relevant levels and scales. Key interrelations are identified at the start of each sub-section.

4.1 The relations within SI initiatives

SI initiatives often start when a group of individuals—with ideas about particular deficits or failures in existing institutions—come together to develop a common vision for an alternative state of affairs. Endorsing specific alternative values (often encompassing inclusiveness and democratic participation), they set out to co-shape a reflexive and experimental space in which their vision may be realised in the form of new or alternative social relations and practices (proposition 1). As the SI initiative develops it provides a space in which alternative values can take root, in which new forms of interpersonal relations are manifested (proposition 2), and wherein empowerment of both the individuals involved and the SI initiative as a collective actor can take place (proposition 3).

Proposition 1. SI initiatives provide spaces in which new or alternative values can be promoted and aligned with new knowledge and practices—in a process of reflexive experimentation that supports both members’ motivations and moves towards collective ‘success’ and ‘impact’.

Members start out with enthusiasm for the novelty the SI initiative proposes in terms of realising alternative values, relations and practices. As the initiative develops, keeping this original ethos ‘alive’, and also to a certain extent ‘pure’, is important for maintaining both motivation and transformative agency. The Impact Hub, Global Ecovillage Network, Slow Food, Hackerspaces, FEBEA initiatives, and Transition Towns all explicitly emphasize the motivating role of a certain “purity “ of values, and have consciously strived to not compromise these as their initiatives developed. Initiatives actively shape their rules and practices in ways that support the satisfaction of basic needs for autonomy, relatedness and competence (see section 3.2) which in turn contributes to maintaining motivation. They strive to do this in ways that are consistent with their ‘alternative’ values. However, pursuing their transformative goals entails facing and dealing with external pressures and making compromises. Initiatives experiment with rules of engagement and decision-making structures that achieve a balance between keeping motivations alive while also succeeding in realising collective goals, to challenge, alter, or replace currently institutionalized social relations and practices. This balance is fluid and often a source of internal tensions and disagreements. Navigating internal tensions is a key challenge in the development of an initiative, providing both a test and opportunity to learn about proposed alternative social relations. Successfully finding ways to navigate such internal tensions is thus also key to maintaining a ‘transformative’ agency.

A loss of initial qualities of face-to-face interactions, ample time for reflection, freedom to try out different alternatives and space to develop diverse competencies and follow different interests can lead in turn to a loss of motivation and the disempowerment of members. Dealing with these tensions is often a process of seeking and experimenting. The clearer the starting impulse including common ground, formulation of purpose and aims, financial resources, governance and management system – the better the initiatives seem to be able to handle the tensions. Dealing with

tensions mostly encompasses some kind of reflection process on the internal dynamics and social relations from individual perspectives. SI initiatives find ways to deal with these tensions, which often occur in the areas of: (1) commitment, growth and integration, agreements and responsibility; (2) community and leadership; and, (3) acknowledgement, management, and professional actions. A number of different kinds of tensions could be identified in the cases studied (commitment, social classes, generations, responsibility and power, ideals and reality, competence and professionalization, openness and protection, governance and leadership, and growing).

Proposition 2. Manifesting new/alternative interpersonal relations is one pivotal way in which SI actors are able to create the right conditions to challenge, alter, or replace dominant institutions.

One important source of motivation for SI actors to challenge, alter, or replace the dominance of existing institutions arises out of dissatisfaction with the quality of social relations that they currently encounter. As a response they strive to create alternative social relations in the initiatives they engage with. New interpersonal relations, based on values of transparency, trust, intimacy, empowerment and connection, satisfy relational and belonging needs, while also supporting autonomy. Initiatives have explicit awareness about the importance of interpersonal relations, also as a basis for contributing to societal change. Some emphasize direct interpersonal relationships of higher (ecovillages) or lower (DESI, Credit Cooperatives) intensity, while others emphasize connectedness through sharing of goods or of physical and virtual spaces (Fab Labs, Impact Hubs, Shareable etc.). Such awareness manifests in explicit strategies to work on interpersonal relations and relational values, making initiatives a 'microcosm' of experimentation with relational change. Internalized interpersonal relations are challenged through awareness, reflection and alternatives that are practiced. These include choosing specific legal forms and decision-making methods, as well as the (re)framing of relational values (e.g. 'paid volunteerism' in response to traditional values of reciprocity in the case of Timebanking). However, many initiatives struggle with the dynamics and challenges of interpersonal relations, and this is one of the main sources of conflict and tension which can have major effects on the organisation, governance and productivity of the initiatives. Ecovillages, Transitions Towns, initiatives within RIPESS, Time Banks, Desis and Fablabs all experiment with alternative interpersonal relations, are aware of the struggle they entail and develop strategies to deal with them. It starts with a common ground, integration processes for members, and rules for membership. Internal processes are accompanied by mediation forums, authorised working groups or differentiated governance methods (e.g. Sociocracy). Triggered by changes and tensions, we have observed that initiatives develop their social relations and organisational structure over time and thereby encounter different stages: (1) foundation and orientation, (2) professionalization, (3) waxing and waning, and (4) re-organisations and adaptations.

While there is most often an explicit striving to challenge existing social relations, it is also the case that there is a whole range of institutionalised relations that are reproduced and remain unchallenged. To take just one example, relations between men and women, or other issues related to gender, sexuality, race and ethnicity, remain relatively unchallenged across many SI initiatives that focus on socio-ecological or socio-economic issues. So while they do actively attempt to modify currently institutionalized relations, a whole range of them are at the same time confirmed or reproduced.

Proposition 3: People are empowered to persist in their efforts towards institutional change, to the extent that basic needs for relatedness, autonomy, and competence are satisfied, while at the same time experiencing an increased sense of impact, meaning, and resilience.

In addition to the satisfaction of basic psychological needs for autonomy, relatedness and competence, the belief in the ability to achieve goals, and especially transformative goals, requires the actual experience of overcoming challenges and achieving some degree of impact (seeing the effects of actions in achieving goals and bringing about the changes sought), which is incorporated into a

collective identity that supports it. The elaboration of a common or collective identity is a key aspect of empowerment as it defines the boundaries of the SI initiative and constructs it as a social actor. For members of SI initiatives, it provides a sense of belonging and meaning, while also being a source of support in the often taxing journey of social innovation. At a collective level, it is a means to overcome previously defined roles and relations among previously divided or co-existing social actors. Credit Unions, Slow Food, Impact hubs, and solidarity economy initiatives associated with RIPESS bring together politically divided actors such as religious and environmental organizations, farmers, chefs, and entrepreneurs together under a new collective identity, thereby re-configuring social relations and enabling collective agency. As they encounter failure, initiatives develop psychological and behavioural strategies that allow them to maintain the motivation to pursue transformative change. Empowerment cannot therefore be conceived of in the absence of resilience.

All these aspects of empowerment are fulfilled through a process of multi-layered community-building in both local SI initiative and translocal SI networks. SI initiatives focus on community-building – both at the local and translocal level – as a pivotal condition for being able to persist in the face of dominant institutions. Slow Food initiatives carefully choose contexts in which diverse actors engage in discussions about a common vision, against the backdrop of the convivial sharing of food. They also organize local markets and events that are able to showcase positive impact. Fablabs are careful at facilitating an inclusive and non-judgmental environment in which people with different knowledge and expertise can come together to co-shape an ethos of knowledge-sharing and creativity.

4.2 Network formation processes

Even if SI initiatives manage to emerge and sustain themselves as empowering collectives of ‘transformation-minded’ individuals, their scope for engendering transformative change still depends also on their capacity to form networks with other SI initiatives and supporters of the SIs proposed. Key challenges are to organize *collective agency* and sustain SI initiatives as viable social enterprises, open makerspaces or sufficiently stabilized circuits of mutual exchange. SI initiatives tend to be weakly institutionalized however, and for the attendant lack of resources they can’t afford to pursue go-alone strategies if they are to achieve broader transformative impacts. Accordingly, they seek to empower themselves through processes of *network formation*, which can be broken down into the distinct dynamics of: the emergence of SI in more or less stable action fields (proposition 4), the formation of transnational SI networks (proposition 5), and discourse formation (proposition 6). Empowering networks in turn provide an important basis for influencing institutional change processes (proposition 8). Network formation can in turn have both desirable and undesirable impacts on the people involved in SI initiatives: on the one hand many SI networks manifest new spaces for reflexive experimentation or ‘cocreation’ that facilitate people coming together to create new approaches and strategies, while on the other hand the spread of SIs can easily result in tendencies towards fragmentation and dilution that actually disempower the people involved in SI initiatives.

Proposition 4: The transformative impacts of SI initiatives depend greatly on the changing tensions within and stability of the action field(s) that they operate in.

SI processes unfold through the interplay between SI initiatives, and their allies, with broader actor constellations that crucially include various incumbent actors as well as actors that stabilize the arenas or action fields in which these actors operate. The transformative impacts of SI initiatives depend greatly on the changing tensions within and stability of the action field(s) that they operate in. Recognising the crucial importance of the action field in unfolding change processes, implies a ‘de-centering’ (Fligstein and McAdam, 2011: p22) of SI initiatives as key protagonists in TSI processes.

Within these action fields, SI initiatives typically encounter the full range between affirmative-collaborative responses, resistance, and co-optation. The case of the Work Insertion Social Enterprises (WISE) is exemplary for this: under changing policy preferences, societal discourses, and regulatory frameworks, these social enterprises for the social inclusion of ‘people at a distance from the labour market’ have typically hovered between radical, emancipation-focused, values-driven alternative enterprises on the one hand, and business-like, efficiency-driven stepping stone arrangements to guide employees as soon as possible back into regular jobs. The general concept of subsidized and therewith socially integrating jobs has been carried by the wide constellation of challenging, incumbent and intermediary actors that in the Belgian case formed a whole policy sector – yet the socially innovative ambitions and translations of the concept differed greatly. Within the tense and dynamic action field, the social enterprises involved typically have been forced to continuously adapt their operations, and to recast them in line with subsequent policy discourses (Pel and Bauler, 2017). The relevance of the instability of action fields also speaks from the changing legal statuses of housing cooperatives in Argentina, from the cyclical rise and decline in the basic income debate, from the various re-emergences of Timebanks in different forms in different contexts, and from the subtle ways in which maker-spaces are positioned as FABLABS, Hackerspaces or Repair Cafes.

A key insight on how the SI initiatives studied typically operate within the action field resides in their typical ‘glocal’ agency. The formation of Transition Towns, Slow Food ‘convivia’, Ecovillages and sharing schemes show how SI initiatives most often build directly on existing community-based initiatives and existing collaborative structures. Thus TSI processes do rely to a significant degree on SI initiatives’ local-regional roots. On the other hand, SI initiatives with transformative ambitions can clearly not be reduced to ‘local community initiatives’. In the course of their existence they tend to reflect on their limited radius of action, their ‘ten square miles surrounded by reality’ (North, 2010), just as they become aware of their belonging to broader social struggles or social movements. As articulated earlier through the notions of ‘translocal assemblages’ McFarlane (2009) and ‘rhizomically’ spreading networks of SI initiatives (Scott-Cato and Hillier, 2011), SI initiatives generally combine their local embeddedness with translocal and transnational connectivity.

Proposition 5: Transnational networks are crucially empowering local SI initiatives.

Situated, local SI initiatives tend to empower themselves and gain access to resources by joining or initiating translocal and transnational networks of like-minded initiatives. Different developmental trajectories of network formation were observed in the transnational SI networks studied. These involved different combinations of local actors collaborating across borders and international networks seeking to spawn or draft new affiliates. SI networks are shaped through combinations of the following four empowerment mechanisms: funding; legitimacy; knowledge sharing, learning, and peer support; and, visibility and identity. Generally the transnational SI networks are rather loose networks with relatively limited degrees of interaction, formalisation and exchange of material resources. Regarding the funding, the typical model remains that of the local cooperative, lab, association, time bank, sharing circle, or social enterprise, in some cases growing to urban-level or regional-level groups of initiatives and only seldomly growing into integrated transnational actors.

SI initiatives seeking to challenge, alter, or replace dominant institutions rely strongly on the empowerment mechanisms of legitimacy, knowledge sharing and construction of collective identities. The relative importance of these empowerment mechanisms is directly related to an important dynamic in SI network formation, namely the importance of what Czarniawska and Joerges (1996) aptly described as the ‘travels of ideas’. SI involves new ways of doing and organizing that as such amount to situated practices, but also comprises the new ways of framing and knowing that shape and are shaped by these practices. Crucially, the travels of ideas allow SI initiatives to make transformative impacts through processes of discourse formation. The RIPPSS network on the solidarity-based economy exemplifies in this regard how transnational networking can create collective identities

across different practices, which typically creates critical mass, visibility and acknowledgement within broader society. Against the neoliberal dominant belief that There Is No Alternative, the construction of a 'solidarity-based economy' emblem asserts and makes visible that alternatives *do* exist. This and similar discourses on 'Slow Food', 'Sharing', 'Participatory Budgeting' and 'Science Shops' typically constitute 'narratives of change' that articulate coherent accounts of changes needed, stakeholders and change agents involved, and accounts of how the change process could unfold (Wittmayer et al. 2015). Importantly, this purposive construction of discourses has internal functions (for sustaining the transnational SI networks), but also external functions. Not only the RIPESS network but also the Global Ecovillages, Shareable and Participatory Budgeting networks show concerted efforts towards global mappings of local initiatives. Showing the ubiquity and viability of the SIs promoted, these activities exemplify how the continuous revolution in communication infrastructures crucially enhances the reach of SI network formation. These mapping exercises, learning platforms, discussion sites and re-tweeting circuits are not only a matter of accelerating the 'dissemination' of SI, but also imply a more complex dynamic of 'translation', involving the creation of 'hype', the diversification of new knowings and framings, the emergence of parallel SI initiatives, and therewith tendencies towards fragmentation that also may disempower SI initiatives.

Proposition 6: Discourse formation and its mediation through communication infrastructures crucially enhances the reach of SI network formation.

One crucial way in which SI initiatives change social relations and dominant ways of knowing and framing, is by developing and adopting various narratives, ideas, metaphors and discourses. Such processes are pivotal for the creation of collective identities within emerging SI networks. In contemporary TSI processes, rapidly evolving communication infrastructures crucially shape and often serve to enhance (accelerate) processes of SI network formation. SI networks are also enhanced by various forms of sociomaterial 'spaces' that enable SI actors to come together, interact and create new knowledge and practices. Such spaces are co-produced over time through interactions with other SI networks and also (the supporters of) existing institutional arrangements. They contribute to both the reach and empowerment of SI networks through the creation of 'shadow' systems of provision, enhanced knowledge resources, and increased civil society participation in new governance structures.

4.3 Institutionalisation processes

The efforts of SI initiatives to emerge in coherent forms and engage in network formation in turn provides the basis for them to realise transformative ambitions by attempting to challenge, alter or replace dominant institutions. Their strategies for achieving transformative impacts, by changing the dominance of existing institutions, are played out through the meso-level social-order of the SI action field (proposition 4). The empowerment of members and the development of spaces for reflexive experimentation (section 4.1), in turn provides the basis for the fostering of new collective identities, the finding of an institutional home (proposition 7), and the identification of strategies for challenging, altering or replacing existing institutions (proposition 8). The account of finding an institutional home in proposition 7 however highlights how ultimately the activities *within* the SI initiative (section 4.1) to be sustained need to be adequately resourced, which requires some sort of 'accommodation' to currently dominant institutional arrangements; this dynamic also plays out through the SI action field (proposition 4). Proposition 9 addresses how SI initiatives engage with the dominant *institutional logics* in the contexts they operate in, and in so doing addresses the interrelations between the institutional change topic of this sub-section and the shaping role of the context addressed in the next sub-section (section 4.4). By moving between different institutional logics, and transposing elements, SI initiatives can seek to influence or 'subvert' the relative dominance of existing institutional arrangements.

Proposition 7. SI initiatives need to find an institutional home in order to access vital resources; this often entails a balancing against the desire for independence from (critiqued) dominant institutions.

SI initiatives—and the SIs that they promote—have a fragile existence in society. Early in the TSI process they exist as, not yet (fully) institutionalized collectives, and not yet (fully) normalized social relations, they lack what dominant institutions by definition do have – a stable existence in society, and the empowering resources that go with this such as societal recognition and legitimacy, trust relations with other actors, financial resources, and capacities for learning and knowledge consolidation. SI initiatives therefore need to actively find or create an *institutional home*, understood as an institutional existence in relation to established institutions, as an intermediate stage between a non-institutional and institutionalized existence. Creating an institutional home is far from straightforward however. It is challenging because it takes time and the availability of not yet fully secured resources. It also involves balancing contradictory strivings for stability versus freedom.

Finding an institutional home concerns both formal and informal institutions. The credit cooperatives in their search for formalisation as e.g. officially recognised banks, have had to negotiate ways to fit in with the existing and dominant institutions of banking, while at the same time trying to hold onto a vision of the need to radically transform those same institutions. Similarly, the Impact Hubs have faced the issue of whether a social enterprise can be recognised as a legal entity in its own right. Both the global Impact Hub network as well as local Impact Hubs creatively combine different legal entities to do their thing – e.g. setting up a Ltd company as well as a foundation as well as an association etc. Many ecovillages are confronted with regulations and restrictions regarding zoning, planning, construction rules, ownership etc. At the same time, they also strive to create an institutional home for new patterns of interpersonal relations, alternative values, and ways of organising.

To succeed, initiatives must find ways to balance their desire for independence from (critiqued) dominant institutions with the necessity for finding an accommodation with those existing arrangements. Doing so requires creativity and the ‘bricolage’ of elements of existing institutions, combined with continuous adaptation to changing circumstances. The metaphor of ‘bricolage’, taken from the junk collectors of France and their habit of creating new objects out of things collected at flea-markets, captures the challenge of improvising with diverse but limited resources. The search for an institutional home takes the form of an *institutional bricolage* (Lowndes and Roberts 2013; Westley et al. 2013; Olsson et al. 2017). The norm is for existing institutions to be merely reproduced—but there is also scope for bricolage, for finding ways of doing things differently with what is available, and thereby creating not only ‘home improvements’ but also contributions to wider transformation processes.

Proposition 8. SI initiatives employ a diverse range of strategies for bringing about institutional change; they must proactively adapt these strategies in response to changing circumstances, while navigating contestations with dominant institutions, and maintaining their original vision.

SI initiatives must find ways to enact existing institutions and resources in novel ways, or create new resources, in order to transform existing institutional structures. Over time they may also create new resources, such as a new local currency, or develop new ‘proto-institutions’, such as new models of community supported agriculture. Strategies employed include: the direct provision of local alternative arrangements that either supplement or ‘shadow’ existing institutions; working to embed a favoured SI into existing institutions; increasing access to resources by manoeuvring for advantage with the SI action field; engaging in discourse formation around the need for specific changes to existing institutions; and, advocacy, lobbying, and protesting to challenge the dominance of existing institutions and institutional logics. SI initiatives make use of diverse combinations of these strategies, and must *proactively* adapt them in response to changing circumstances.

The Transition movement had an initial focus on the need for radically new localised systems of production and consumption as a means to build resilience in the face of Peak Oil and climate change. Accordingly, it focused on building new local institutions to cope with 'energy descent', including SIs around local food provision, community energy, and new ways of organising. The innovation was mainly in how these elements were brought together with the narrative in ongoing acts of bricolage. After the financial crisis of 2008 (and subsequent austerity measures) and the receding of Peak Oil as a compelling narrative in public discourse, there was a shift to an emphasis on 'local economic resilience'; thus both the narrative and the focus of efforts were adapted significantly in response to developments in the context. As well as acting locally, the Transition movement has cooperated strategically at the EU level in e.g. the ECOLISE network to explicitly influence policy-making .

Strategy-making typically involves acts of bricolage through the re-use and re-combination of pre-existing and new ideas, concepts or technologies to form something novel, and is in this way constrained by historical developments (see section 4.4). SI initiatives must also manoeuvre for advantage within the action field they operate in, so as to be better placed for future attempts towards institutional change. In doing so, SI initiatives function also as 'institutional entrepreneurs' or 'systems entrepreneurs', attempting to 'play the field' to influence the emergence of conditions that are more conducive to their vision for change (Olsson et al., 2017). Within the action field, there are continuous co-shaping processes, between SI initiatives and incumbents, both constantly engaged in moves that they hope will preserve or improve their position in the field (Fligstein and McAdam 2011).

Proposition 9. One way in which SI initiatives engage with dominant institutions is by reconsidering the broader institutional logics in which those institutions are embedded; they do this by 'travelling' across different institutional logics, and by reinventing, recombining and transposing specific elements.

SI initiatives confront not only established institutions in isolation but also the different *institutional logics* (cf. Thornton and Ocasio, 1999) that constellate patterning in established institutions. SI initiatives emerge in the context of different institutional logics, e.g. 'market', 'state', or 'community' logics. As they develop, SI initiatives 'travel' across different institutional logics, and may work with all sorts of hybrid institutional forms, and with the reinventing, recombining and transposing of different institutional elements. A SI initiative is often born out of a partnership or other form of cooperation between (actors representing) different institutional logics, and sometimes itself emerges as a hybrid institutional entity.

Time banks emerged in Japan under the name of Volunteer Labour Bank, motivated by concerns for the time demands on women, especially from elderly parents. The model of time-based exchanges played into societal changes such as more women in the workforce, earlier male retirement (through economic recession and redundancy), longer life expectancy, and an aging population. Later manifestations came to challenge the traditional institutions of Japanese society much more than the first initiatives, and thus over time adopted a more critical stance to the dominant cultural logics of Japanese society. Time banks has spread to many other countries, including the UK where a different dynamic is observable. Time banks in the UK was granted a permission for benefit claimants to work via time banking, which constituted a small but important change in dominant logics; Time bank initiatives in the UK are also working closely with healthcare experts in efforts to rethink good health care, thereby embedding time banking into a new institutional context.

By embedding in translocal networks, and by visiting and learning from initiatives in other geographic contexts, SI initiatives are able to distance themselves from (some of) the institutional logics in their own context, which enables them to become aware of and question the institutional context in which they are geographically located, and transpose institutional elements from one context to another.

4.4 The shaping of TSI by the sociomaterial context

In this section we address how the context shapes SI initiatives and networks (proposition 10). SI initiatives and networks are reality only considered 'innovative' against the background of a transforming context (proposition 11), and 'diversity' is fundamental to TSI (proposition 12). While there is an explicit striving to challenge existing relations in SI initiatives, there is also a whole range of institutionalised social relations that are reproduced and remain unchallenged by many SI initiatives (whether willingly or unwillingly). While they actively attempt to modify a set of institutionalized social relations, including interpersonal ones, a whole range of them are confirmed or reproduced. Even the choice to support certain specific transformative goals, rather than others, is a dynamic that is, in part, shaped by the historical developments in the context, as manifested through the people involved in SI initiatives and their sociomaterial relations. Developments in the context result in 'waves' or 'hypes' that SI initiatives need to either 'play into' or 'ride out', with concomitant implications for resourcing.

Proposition 10. The rise of SI initiatives and the particular transformative ambitions conveyed by them are strongly shaped by the historical development of the wider sociomaterial context.

Important contextual developments shaping the SI initiatives and networks studied include: ICT, the rise of social media, open source, and the network society (Castells, 2000); the negative consequences of marketization processes (Sandel, 2012) and the rising demand for autonomy; demographic changes; environmental and sustainability concerns including climate change; perceived failures capitalism and neoliberal markets; and the search for purpose, belonging, and self-direction (Verhaeghe, 2012). 'Modernisation' and in particular an emphasis on 'innovation' and 'entrepreneurship' in the context of a market-based 'logic' is something that the SI initiatives studied have an ambiguous relationship with: with some seeing market-based logics as a means to social value creation (e.g. Ashoka), while many take a negative stance for its reliance on competition, elements of exploitation (of nature and people) and managerialism (e.g. many of the ecovillage cases). Many question the extent to which values of cooperation, autonomy, trust, democracy and collective ownership can be promoted from within a dominant institutional logic of the market economy.

The context shapes not only strategic actions (leading to 'bricolage' as addressed in 4.3) but also the formulation of transformative goals by individuals and groups. TSI people formulate transformative goals in response to social critique (about capitalism, the environmental crisis, loss of social cohesion) and the desire to satisfy both basic psychological and material needs. The formulation of goals is mediated by people's own personal development and life histories involving encounters with others and the institutional make-up of the context. Such social critiques are always part creative act and part re-packaging and re-interpretation of historical critiques; they are also influenced by longer-term historical trends and developments in the context such as emancipation, or demands for self-direction and for purposeful activities. Thus the process of transformative goal formation is itself a historically situated process, where the formulation of novel goals is possible but also highly conditioned by historical developments. People are part of processes of change, in ways beyond their imagination and choice. TSI people seem to be making their own choices about life, but they are not entirely free in making those, as cultural human beings. TSI must therefore be accounted for in a balanced way as both as a reaction to the perceived failures and injustices of dominant institutions and as a *manifestation* of longer-term processes of transformation in the context.

Proposition 11. SI initiatives are only innovative against the background of an evolving sociomaterial context. Activities of innovating and invention present but one historical appearance of TSI, next to other less conspicuously innovative activities of re-invention, advocacy, and contextual adoption.

Throughout the cases studied, we encountered evidence of practitioners being ambivalent about the 'innovative' nature of their activities. Indeed, the cases display a great deal of re-invention, advocacy

and re-contextualisation, next to elements of experimentation and innovation. More generally, SI activity can be found in many places and is carried through various activities, beyond the obvious circles of innovation-minded actors, experimenting activities, and future-oriented action. An important observation is that 'transformative' and 'socially innovative' can be ascribed to certain activities, discourses, initiatives and actors, however they are not 'absolutes' but rather transient and relationally-dependent properties. The SI heroes of today are not necessarily those of future SI, which may be motivated by quite different SIs and emphasise different social relations. The initiatives studied as 'SI initiatives' actually display a wide range of activities, covering: an experimenting attitude and innovation society ethos; reasserting traditional practices and values; evangelizing, transmitting and advocating innovations; and, adopting, importing, and recombining innovations.

Besides acknowledging the wide range of agency and activities that SI initiatives are actually engaged with, it is also important to ask: who is calling a particular initiative a socially innovative initiative, and what are the normative commitments implied by the discourse around innovation that they are promoting? The societal acknowledgement (politically, scientifically, in public discourse) of an initiative as SI is not a secondary result but an inherent part of SI dissemination. In line with other studies (Franz et al., 2010; Rammert, 2010; Jessop et al., 2013; Schubert, 2014) our cases highlighted (Pel and Bauler, 2015) how acknowledgement as 'social innovation' has become increasingly important, given current prevalence of an 'innovation society' discourse. Acknowledgement as 'social innovation' can lead to vital access to resources but at the same time can involve risks capture by dominant institutions.

To articulate the historical shaping of SI initiatives is also to indicate the conceptual instability of the focal actor in our theorizing and empirical investigations. The 'SI initiative' does not simply refer to collectives of innovation-minded individuals but is at the same time a social construction, an identity acquired through the analysis of researchers but also through the development of SI policy and against the background of certain trends in the context. The implication is that to succeed, SI initiatives need to find adequate ways to navigate the social construction of SI.

Proposition 12. Diversity is an integral element of TSI processes, reflecting the historical diversity of the people involved in them, who strive for diverse institutional forms that fit with their differing values, future visions, and present circumstances.

TSI processes involve diverse transformations based on different social relations, values and ideas of progress. Diversity of directionalities, institutional forms, ways of funding and collaboration are an integral and inherent element of the social transformations that are enacted and aspired to as part of TSI (Stirling, 2011). For example, of the cases studied some had a main focus on 'new economy' SIs (e.g. The Impact Hub, Ashoka, Time Banks, Credit Unions), while others strongly combined economic and environmental-sustainability goals (e.g. Global Ecovillage Network, Transition Network, Slow Food, Via Campesina), and some emphasised more strongly transformative science and education, inclusive society, or creating spaces for co-creation. The extent of emergence of coherence and alignments in transformative ambitions across diverse SI networks is an important aspect of the dynamics of TSI processes. Possible interaction patterns across SI networks and between SI networks and incumbents include both co-existence and co-evolution, with an important role for hybrid forms combining different logics (in incumbent-dominated systems where initiatives must adapt to survive).

As transformative changes in established institutions are realised (or not) there are cross-level and cross-scale feedbacks involving both SI initiatives and the people that support them. If things go well, and transformative ambitions start to be realised, this can lead to further empowerment, and further impetus for change. If things don't go badly, and transformative ambitions are not realised, the result can be a loss of motivation, and a 'loss of faith' in the currently proposed alternatives. This may in turn lead eventually to the 'next big thing' or 'next wave' of SI initiatives that aspire to transform society.

5. Discussion and conclusion

This paper has responded to calls for new SI theory that can contribute to the *solidification* of the field, identify the transformative potential of SI, and be of use to policy and practice. Research questions were formulated specifically on *transformative* SI as a particular type of SI with great relevance to addressing contemporary societal challenges (**section 1**). Based on a series of iterations between extensive empirical research and theory development, a set of *middle-range* theoretical insights on TSI were developed in three ‘layers’ covering: a research design and methodology for the TSI theory-building (**section 2**); a relational theoretical and conceptual framework for TSI (**section 3**); and, a set of theoretical propositions on the (inter)relations of TSI processes (**sections 4**). In accordance with these 3 layers, the scientific contribution of our TSI theorising resides in the following:

Firstly, concerning the research design and methodology employed, we have demonstrated that a middle-range approach combined with a relational framing of SI realities and a commitment to developing a process-theory, provides a promising methodological response to the challenges of developing new SI theory (see also Haxeltine et al., 2017b).

Secondly, we have demonstrated the application of a relational framework for TSI, and argued that it is a suitable theoretical approach for theorising TSI processes. The framework provides a balanced theoretical account that can help to ground further TSI research in contemporary theories of transformation and innovation. It thereby helps to address calls by van der Have and Rubalcaba (2016) and many others for conceptual clarification in the SI field. The relational framework also provided a theoretical platform through which to organise a paradigmatic interplay between contrasting theoretical concepts. Thereby also providing a means to embrace a diversity of approaches in TSI theorising (Moulaert et al., 2017) while still facilitating theoretical dialogue. One notable contribution of this research is the embedding of institutional dynamics within a comprehensive relational framing of TSI, as called for by Cajasanta (2014) and many others. Another has been the invocation of social psychology and network theories to deepen a relational understanding of empowerment processes. Thereby linking individuals and their needs and motivations to contextual TSI dynamics, the importance of which is noted by e.g. Moulaert et al. (2017).

Thirdly, the iteratively developed set of theoretical propositions on TSI processes, articulate TSI as constituted by complex and interrelated (and changing) sociomaterial relations and institutional dynamics, that must be explained across all relevant levels and scales, as indicated by the four ‘clusters’ of TSI relations. In articulating these four clusters of TSI relations through the study of empirical cases, we have demonstrated both the necessity and the viability of developing a comprehensive relational account of TSI dynamics and agency.

Taken together these contributions provide a solid foundation for the further development of heuristics on TSI dynamics and agency. Providing the basis for avoiding a partial focus on only one aspect of the phenomenon, and addressing instead the complexity and multi-level nature of TSI processes. Significant research challenges remain in developing TSI theory—indeed we identified future research requirements concerning each of the twelve propositions (Haxeltine et al., 2017a).

For the most part, the four clusters of TSI relations and accompanying TSI propositions stop short of identifying chains of causality, that might lead to neat explanations and heuristics on TSI dynamics and agency. This in part reflects the fact that this research has sought to avoid premature assumptions about the causalities and entities involved in TSI dynamics and agency (see Haxeltine et al., 2017b; Pel et al., 2017b), seeking instead to demonstrate the need for TSI theory to acknowledge the multi-level and multi-scale complexity of the relations that underpin TSI processes. In part however it also reflects

the still nascent state of this TSI theory-building effort. The role of path dependencies and longer-term historical developments has been acknowledged in this paper in the relational framework for TSI, but not yet fully developed in the set of TSI propositions, mainly due to our reliance on relatively contemporary empirical case studies (see section 2). One major line of approach to further solidify TSI theory resides in undertaking more profound evolutionary theorizing, supported by longitudinal accounts of TSI processes. A theoretical integration might then be achieved between the TSI theorizing presented in this paper and systems-evolutionary approaches such as Schot & Geels (2007) and Westley et al. (forthcoming). As discussed already in the introductory discussions, however, there are certain particularities of TSI that are difficult to fully account for in such macroscopic approaches.

Another significant aspect to the challenge of further developing TSI theory resides in the frequently occurring *paradoxes* of TSI. The central paradox of TSI, can be stated in terms of the observation that SI initiatives strive to exercise ‘transformative’ agency while in turn also being strongly shaped by the very same institutions and structures that they seek to challenge. This well-known ‘paradox of embedded agency’ (e.g. Seo and Creed 2002; Lowndes and Roberts 2013) appears to be particularly pervasive in the SI cases that we studied. Throughout the four clusters of TSI relations we were able to distinguish different variations on the theme of this central paradox, namely: the paradox that the transformation of institutions involves at the same time their reproduction; the paradox that the search for emancipating organisational forms can in turn (re)produce power relations; the paradox that the development of SI networks stabilizes yet also diffuses collective identities; and the paradox that the historical shaping of SI often involves intriguing patterns of the ‘reintroduction’ and ‘fading’ of social practices—which therefore acquire both ‘progressive’ as well as ‘regressive’ significance.

These TSI paradoxes typically require relational theoretical approaches that are sensitive to the tensions involved in the ‘situated’ attempts of SI initiatives towards contextual transformation. They point to ‘pressure points’ where a balanced account of agency is critical to explaining TSI. How a ‘TSI paradox’ plays out in an actual case depends crucially on path dependencies, on the fact that “history matters” (Olsson et al., 2017), as well as on the agency and empowerment of the focal SI initiative. There are a limited subset of possible next steps that can be taken based on the historical development of the context. SI initiatives must find ways to ‘navigate’ these various TSI paradoxes if they are to realise their transformative ambitions. Therefore explaining these paradoxes in TSI theory is also one of the keys to developing insights that are of strategic relevance to practice and policy.

This paper has explored the (inter)relations and sub-processes of TSI, similarly to Moore et al. (2012) this raises attention to the need for SI initiatives and policy actors to develop different sorts of TSI ‘tools’ for different TSI challenges. The different TSI relations unpacked and the various paradoxes identified each point to specific opportunities for creativity and novelty on the part of the SI initiative, but also specific risks of capture or dilution. Much remains to be tested and explored regarding the development of heuristics for the ‘empowerment’ of SI initiatives. Throughout the many cases studied in this research, the members of SI initiatives often expressed a need for better ‘theories of change’ to inform their strategies. The further development of TSI theory in close dialogue with practitioners is a key opportunity for future TSI research (Haxeltine et al., 2017b). Furthermore, this awareness of the complexities and ambiguities of empowerment (Swyngedouw 2005; Avelino et al. 2017) and of TSI paradoxes (Stirling 2016; Schubert 2017) marks an approach to TSI praxis that breaks with the instrumentalism that often prevails in the field. However great the differences between a-political Big Society narratives versus principled challenges to a ‘neoliberal’ order, both major strands in SI research downplay the ambiguities of SI through normatively rather unreflexive teleologies of e.g. ‘upscaling’ and ‘acceleration’ (e.g. Gorissen et al. 2017). Normatively, the relationally-framed project of TSI theory provides a foundation to ‘re-ethicize’ (Jessop et al. 2013) SI theory, reflexively emphasizing ‘directionalities’ (Stirling 2011) and therefore also the normative commitments of the ‘theory-maker’.

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