Transformative Social Innovation:

Implications for Transitions Research

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Abstract

Social innovation is gaining attention for its transformative potentials. Drawing on theory-building efforts regarding transformative social innovation (TSI), this contribution formulates implications for transitions research. Critically considering how the empirical extensions to transitions research feed back into its theoretical core concepts, five insights are discussed. These pertain to 1) the broadened range of 'persistent problems' at issue; 2) the transformative significance of institutional hybridization; 3) the individual and collective empowerment processes of social 'niches'; 4) the translocal mobilities of social niches and 5) the need for refined process understandings that account for phenomena of re-emergence and cyclical transformation.

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1 Introduction: Transformative Social Innovation, extending transitions research?

There is a growing interest amongst researchers, policy makers and various societal stakeholders in social innovation (SI). Understood as the creation and promotion of new social relations, involving new ways of doing, organizing, framing and knowing (Haxeltine et al. 2017a), SI denotes a diverse set of innovations taking place in various areas of society. Next to apparently innocuous incremental initiatives (e.g. the 'walking school bus', repair cafés) or rather system-confirming SI (e.g. the hyper-capitalist, exploitative faces of the sharing economy), there also initiatives with more evident transformative ambitions and impacts (e.g. ethical banks, Ecovillages, solidarity-based economy, the unconditional basic income, Transition Towns). As indicated by Schubert (2017), SI is recently reaching a reflexive stage, in which the various initiatives are considered more strategically as instruments for social change. This shift is particularly manifest in the accounts that emphasize the system-transformative potentials of SI (Klein et al. 2016; Moulaert 2017; Westley et al. 2017). These transformation-oriented appreciations of SI are also gaining attention in transitions studies. This speaks from the intensifying explorations of sharing economy (Frenken & Schor 2017), energy cooperatives (Doci et al. 2015), grassroots innovations (Seyfang & Haxeltine 2012) and social entrepreneurship (Witkamp et al. 2011), but also more generally from the increased interest in topics of socio-economic transformation. Typical issues in these accounts of social 'niches' are their potentials for upscaling, their vulnerabilities to 'regime' capture, and their specific significance in terms of sustainability (Pel & Bauler 2017, Celata & Colletti 2018).

This contribution is based on theory-building efforts regarding transformative social innovation (TSI), understood as SI that challenges, alters or replaces dominant institutions in particular socio-material contexts (Haxeltine et al. 2017a). Drawing on a large set of original data (comprising 20 transnational SI networks and about 100 of their local manifestations in 27 mostly European and Latin American countries), first moves have been made towards a systematic insight into TSI phenomena (Haxeltine et al. 2017b). Considering the rise of this topic in transitions research, this contribution addresses the following research question: What are the main implications of recent research on TSI for the core concepts and theoretical framings of transitions research?

Answering this question requires critical consideration of the assumed constitution of TSI as a distinct body of knowledge. It is therefore useful to situate this TSI acronym within the steady proliferation of innovation definitions, research agendas and policy declarations that characterizes current innovation society (Godin & Vinck 2017). Accordingly it could bring useful differentiations, call attention to neglected phenomena and provide refined theoretical perspectives, yet it could also merely add another innovation 'brand'. The latter would be particularly unfortunate for the concomitant introduction of false dichotomies (resuscitating the social-technological juxtaposition, for example, Cf. Degelsegger & Kesselring 2012) and conceptual confusion (Cf. Rubalcaba & van der Have 2016 for the various perspectives through which SI scholarship has developed). Taking a cautious approach, TSI can be considered as an emergent area within transitions research, complementing the set of concepts and models around which this heterogeneous field has stabilized. Characterized by a holistic striving towards *system* innovation (Rotmans 2005; Smith et al. 2010; Grin et al.,

2010) and by ontological assumptions of coupled social-material systems, transitions research arguably covers the social dimensions of transformative innovation. Seeking to avoid unwarranted claims to novelty, we will clarify how our TSI theorization builds on the transitions-theoretical repertoire, taking it to relatively under-explored empirical areas (roughly coinciding with the research stream on 'civil society, culture and social movements' of the STRN (2017: 22-24) research agenda). We will underline however how these empirical extensions called for theoretical interplay with relatively unexplored strands of theory, eventually generating insights feeding back into core concepts and theoretical framings of transitions research. Presenting five of such implications, we will show how our TSI theorization forms part of but also goes beyond the 'socio-institutional approach' to transitions as coined by Loorbach et al. (2017: 610-611).

For sake of a transparent discussion, we first provide a methodological clarification of TSI in terms of theory development and contents (section 2). Next, we discuss five implications for transitions research. These pertain to the broadened range of 'persistent problems' (section 3), the transformative significance of institutional hybridization (section 4), the empowerment afforded through new organizational forms (section 5), the translocal mobilities of 'social niches' (section 6), and the need for refined process understandings that account for re-emergence and cyclical transformation (section 7). We conclude with a synthesising discussion on the empirical and theoretical extensions provided, critically considering their mutual coherence and commensurability with the main body of transitions research (section 8).

2 Methodology: Re-assembling transformative innovation theory

Our TSI theorization has been developed in continuity with transition research in its general outlines, whilst reconsidering various specific tenets and categorizations that seemed not to apply to the social innovation phenomena studied. It can be characterized as the reassembling of a transformative innovation theory. In the following we briefly outline the theory-building procedure (section 2.1) and the kind of TSI theory developed (section 2.2).

2.1 TSI middle-range theory: Case comparison and theoretical integration

As described more extensively in Avelino et al. (2017), our development of TSI theory responded to the calls for a clarification of the notoriously ambiguous social innovation concept, especially with regard to its potentials for societal transformation (Cajaiba-Santana 2014; Rubalcaba & van der Have 2016). Our four-year project featured a large international consortium, dedicated to develop robust theoretical insights on TSI. Similar to the questions on transitions agency and dynamics as formulated in Grin et al. (2010), the project was set to investigate how social innovation can lead to transformative impacts, and how situated actors in these processes can be empowered.

Qua methodology, TSI development started from ambitions towards middle-range theory similar to those described by Geels (2007). We sought to move beyond the particularistic single-case research designs that prevail in social innovation research (Haxeltine et al. 2017a), undertaking systematic comparison to identify generative mechanisms. Through the typical middle-range theory procedures of abductive and retroductive confrontations between theoretical constructs and empirical investigation (Danermark et al., 2002), generic TSI insights have been developed in three phases. These involved comparative analyses of qualitative in-depth data on 20 transnational social innovation initiatives and almost 100 'local manifestations' of them in 26 different (mostly European and Latin American) countries. This empirical extension of transitions research involved initiatives pursuing societal transformations regarding sustainable lifestyles (Ecovillages, Slow Food, Transition Towns), 'alternative economies' (Ashoka, Impact Hubs, ethical banks, unconditional basic income, Sharing economy, solidarity-based economy, cooperatives), social inclusion (Timebanks), and various forms of participative, co-creation oriented arrangements such as FABLABs, Hackerspaces, participative budgeting, living labs and science shops (Cf. TRANSIT 2018).

As has been done by Witkamp et al. (2011) and others, we have considered studying the above SI initiatives as 'social niches' (Cf. section 5). It transpired early on however that certain empirical observations were difficult to describe in these terms (see for example Pel & Bauler 2017). Also reflecting on the tendencies towards premature reification in SI literature (Haxeltine 2017), the elusive, distributed agency in SI processes (Pel et al. 2017) and the arguments for relational approaches in transitions research (Garud & Gehman 2012; Jørgensen 2012, Chilvers & Longhurst 2015 amongst others), we developed a relational framework. Whilst being aware of Geels' (2007) warnings against 'reificophobia', we sacrificed some of the ambitions towards explanation for a greater attentiveness to the TSI 'in the making' as observed in our case studies. Moreover, the relational approach served the requisite critical reflection on the as yet not settled entities, interactions and dimensions through which TSI could be grasped (Cf. Cajaiba-Santana 2014). This conceptual work has proceeded through the typical theoretical integration through which transitions theory has been developed (Grin et al. 2010). Along the recommendations for coherent theoretical interplay of Geels (2010), the basic relational framing has been used as a platform for thoughtful recombination of theoretical resources. This involved various theoretical pillars of transitions research (STS, structuration theory, neo-institutionalism, reflexive governance and the process-theoretical mode of theorizing), transformation-oriented approaches in social innovation research (Third Sector and Social Economy Studies, processual approaches, grassroots innovation) and various research strands pertaining to particular aspects of TSI processes (institutional theory, neo-Marxist accounts of societal transformation, social psychology, social movement studies, mobilities scholarship).

2.2 TSI theory – scope and implications

The sketched theory development procedures have not led to a 'TSI theory' in the sense of a full-fledged set of empirically tested generative mechanisms that explain transformative outcomes. It should therefore not be compared with relatively more established explanatory

models such as MLP, SNM and TIS. Our implications for transitions research are drawn from TSI *theorizing*. As detailed in Haxeltine et al. (2017b), this extensive work has generated insights on three levels: 1) meta-theoretical insight (articulating pitfalls of theory development), 2) conceptual framework (identifying the relevant entities and interlinked processes) and 3) explanatory statements (formulating twelve empirically grounded propositions on the four key sets of interactions that shape TSI processes). The implications for transitions research draw on these three levels of findings.

The pertinence of our findings resides in the considerable overlap between TSI and key issues in transitions research. TSI theorization shared the transformative orientation of transitions research. Understanding social innovation (SI) as the promotion of new social relations, involving new ways of doing, organizing, framing and knowing, we have defined TSI as SI that challenges, alters or replaces dominant institutions in particular socio-material contexts (Haxeltine et al. 2017a:). This relational definition has in turn informed a conceptual framework theorizing four interlinked sets of changing relations: 1) changing relations within SI initiatives; 2) their network formation; 3) their interactions with dominant institutions and 4) the interactions with the broader societal context. These processes have been studied through a relational 'flat' ontology. Their evident correspondence with the MLP framework reflects how we used it similarly to Westley et al. (2017: 10), as an initial organizing device to map the unfolding of TSI processes. . Less macroscopic in orientation than the MLP and working with relatively contemporary cases of TSI 'in-the-making', TSI shares the relative 'niche-centrism' of SNM and TIS. Our empirical focus on situated processes of (dis) empowerment (Cf. Avelino et al. 2017) and institutionalization also reflects the transition management inclination towards action research.

Having specified TSI theory development, we now turn to the question of how it can extend transitions research both empirically as well as theoretically. In the following we will discuss five implications, specifying the underlying findings and situating them within ongoing transitions-theoretical debates. They pertain to central concepts and understandings in transitions research:

- What is the range of 'persistent problems' that transitions research should cover?
- How to understand the institutional change and institutional entrepreneurship implied with regime shifts?
- How to understand the empowerment afforded through 'social niches'?
- How to understand the geographically distributed agency of networked innovation?
- How to refine the prevailing process narratives of 'acceleration'?

3 Persistent problems: Beyond 'sustainability transitions'?

3.1 Introduction

The concept of the 'persistent, systemic sustainability problems' is foundational for transitions research. It provides not only the empirical delineation of the field (the class of

societal problems that form its proper research objects), but also defines its normative grounding (the normative yardsticks underlying these problem definitions). Acting as justifications of system-innovative interventions, these problem statements merit careful methods of diagnosis (Schuitmaker 2012). The significance of the concept has been underlined in early transitions research, presenting it as a fundamental recasting of sustainable development strategies (Rotmans 2005), and as essential broadening of the prevailing problem framings and analytical framings in innovation studies (Smith et al 2010: 436). Later on, the 'persistent problems' became a rather tacit background, however. Practically, the various procedures of participative visioning may have reduced the need for elaborate substantive accounts of system pathologies. Theoretically, the field further converged onto a global consensus regarding the remits, aims and justifications of so-called 'sustainability transitions' research. In recent years, the concept seems to have been resuscitated through explorations of persistent 'socio-economic' (Geels 2013), 'socioinstitutional' (Loorbach et al. 2017) and 'interconnected social, economic and ecological' challenges (Schot & Kanger 2018), beyond the already broadly scoped core business of persistent sustainability problems (Smith et al. 2010; Geels 2010). Similar reconsiderations of problem diagnostics have been achieved through analyses of the particular grounds for transitions in under-explored world regions such as East Asia (Angel & Rock 2008) and Africa (Swilling & Annecke 2012).

Our TSI theory development has provided a similar extension of empirical scope. Reflecting on the particular 'persistent problems' encountered in various domains and contexts, it became evident however that framings in terms of 'unsustainable socio-technical regimes' were capturing only part of those.

3.2 Findings

Schuitmaker (2012) started his elaboration of the 'persistent problems' category from an empirical study in the healthcare system – an atypical case as regards sustainability. Our reflections similarly flow from the study of relatively unexplored transition contexts. Only a few of the studied initiatives and organizational fields fit within the classical transitions analyses of socio-technical functional subsystems: The INFORSE network on renewable energy development is a well-documented niche actor in the energy transition, for example, whilst the Transition Towns, Ecovillages and Slow Food movements can be considered 'sustainable lifestyle' niches that contribute to the transitions to renewable energy and locally produced organic food. In line with grassroots innovation research (Seyfang & Smith 2007; Seyfang & Haxeltine 2007), the 'alternative economy' (Avelino et al. 2015) cases of RIPESS (solidarity-based economy), Impact Hubs, Timebanks, Ashoka, the International Cooperative Association, Via Campesina and Shareable could equally be appreciated as pursuits of social and economic sustainability – even if this would disregard the particular conceptions of the good life underlying their experimentation with new social relations. Other cases appeared to be decidedly outside the scope of transitions research, however, for lack of any obvious 'persistent sustainability problem': The BIEN network advocates the unconditional basic income to enhance self-determination and freedom. Likewise, the initiatives promoting participatory budgeting and science shops are pursuing participative governance and democratization rather than sustainable development. Moreover, the Hackerspaces exemplified the reluctance of some social innovation initiatives to become actors in processes of large-scale system transformation – resisting the logic of systemic intervention that the 'persistent problems' concept forms part of (Cf. Stirling 2016).

A promising way to make sense of these a-typical transitions cases is to consider them as instantiations of 'socio-institutional' transitions. Loorbach et al. (2017:603) coined this term to express their recognition of socio-ecological, socio-economic, and socio-political systems as "equally relevant objects of transition". In conjunction with the focus on different kinds of systems, their 'socio-institutional approach' to transitions focuses less on technological system dimensions, placing emphasis on "how incumbent routines, powers, interests, discourses, and regulations create path dependencies and how these are challenged by (transformative) social innovations" (ibidem: 610). The proposed socio-institutional approach significantly broadens the range of 'persistent problems' as objects for transitions research – even if only very roughly circumscribed in terms of 'grand societal challenges' and 'grand societal challenges related to sustainability' (ibidem: 601-602).

TSI theory has proceeded roughly in line with this notion of 'socio-institutional' transitions. Defined in terms of changing social relations and institutional change (Cf. section 2) and lacking any specific sustainability orientation, the conceptualization accommodated the broader range of 'persistent problems' observed in our case studies:. Concerns about marketization, bureaucratization, hyper-individualism, commoditization, social exclusion, segregation and alienation (Cf. Kemp et al. 2016; Weaver et al. 2017), overlap with (broadly defined) sustainability – but still only partially. The transitions-theoretical accounts of system lock-in seemed insufficiently precise to grasp this maze of 'persistent problems'. For the requisite analytical deepening we could rely on extensive critical-theoretical scholarship – addressing both general social innovation developments (Cf. Moulaert et al. 2013; Klein et al. 2016) and particular initiatives (e.g. the theorization of the basic income dates back at least to Thomas More's 'Utopia'). Our understanding of the new transition domains was thus enriched through neo-Marxist accounts of shifts in the political economy, critical-sociological accounts of exclusion and alienation, and Third Sector and governance scholarship on institutional 'failures' and 'voids' (Mair & Marti 2009). These theoretical extensions clarified not only what systemic problems our TSI cases were revolving around, but also on what grounds and in which respects they were considered in need of system-transformative action.

3.3 Implications

Our investigations of 'persistent problems' in less explored empirical fields have reasserted the foundational significance of this somewhat forgotten transition-theoretical concept. Whilst affirming the importance of recent explorations of 'socio-economical' (Geels 2013), 'socio-institutional' (Loorbach et al. 2017) and 'deep' (Schot & Kanger 2018) transitions, they highlight how such empirical broadening of transitions research raises questions on the capacity of transitions research to grasp the attendant broad range of 'persistent problems'. It is worthwhile to articulate the convergences in directionality between the miscellany of 'undercurrent' movements (Schot & Kanger 2018: 2). Such convergence cannot be assumed

however (Stirling 2011), as our TSI empirics have substantiated through the various aspirations towards inclusiveness, justice, freedom, democracy and authenticity. This diversity cannot be accommodated by casually stretching the 'persistent problems' concept, and by unreflective transfer of the 'sustainability transitions' intervention repertoires to any 'grand societal challenge' or set of 'interconnected problems'. In other words, the empirical broadening of transitions research is at risk of leaving it normatively shallow. The empirical extensions need to be accompanied with thorough reflection on the particular 'persistent problems' around which new transition contexts are forming.

It is useful in this regard to consider transitions research as a relatively young contribution to a longstanding tradition of critical theory (Pel et al. 2016). It has reinvigorated the criticaltheoretical project by theorizing the evolutionary lock-in of unsustainable socio-technical systems, and especially by elaborating the corresponding lock-out (Geels 2005). This 'reconstructive' (Avelino & Grin 2017) approach has evident strengths in moving beyond ivory-tower modes of critique. Moving into uncharted domains the flipside limitations seem to surface however as far its de-constructive diagnoses of persistent problems remain stuck in crude schemes of greater or lesser 'sustainability'. As indicated through the abundant critical scholarship available on transformation attempts such as Basic Income, Slow Food, and the solidarity-based economy, there are is no scarcity in diagnostic concepts and normative yardsticks through to deepen the diagnosis of 'persistent problems'. In fact, the proposed thoughtful empirical extension of transition research can already rely on various advances within the field. Beyond the work on transitions politics (Avelino et al. 2016) and the attentiveness to diverse sustainability understandings (Hodson et al. 2017), the call to account for directionality (Stirling 2011) is being followed through various explorations. Examples are the clarification of innovation system purposes (Schlaile et al. 2017), and indeed the studies of equitable, inclusive, democratic (STRN 2017: 38-41), or 'just' (Swilling & Annecke 2012; Newell & Mulvaney 2013) transitions.

4 Transformative change: From regime replacement to institutional hybridization

4.1 Introduction

Transitions research revolves around shifts in socio-technical 'regimes'. This approach to sustainable development emphasizes the importance of broad, radical changes in the prevailing modus operandi in systems of provision such as energy, mobility, agriculture or health (Grin et al. 2010). Through its roots in evolutionary economics and the history of technology, transitions research is focused on the historical dislodging and replacement of (socio-) technological paradigms – without which sustainable development policies remain limited to incremental tinkering that reproduces the 'persistent', systemically rooted problems (Rotmans 2005). This systems-evolutionary mode of theorizing is appropriate for sustainable development issues, where long-term and large-scale shifts in the societal metabolism are the bottom line. On the other hand, the very systems perspective entails well-documented problems of operationalization in terms of actor coalitions, power and transition politics (Meadowcroft 2011; Geels 2014; Avelino et al. 2016).

Beyond the general systems-evolutionary view on regime replacement, transitions research has usefully mobilized complex systems insights to conceptualize how such system change could be induced by 'modulating', or playing into, the 'dynamic instability' of regimes (Grin et al. 2010). Amidst the many attempts to specify this in more empirical terms, an important approach has been to emphasize the institutionalist foundations of the 'socio-technical regimes' concept - stripping these systems of their material existence, and taking shifts in societal rules as proxies for overall system evolution (Svensson & Nikoleris 2018:464). Along this institutionalist line of approach, Fuenfschilling & Truffer (2014: 774) usefully unpack the instability of regimes by conceptualizing them as semi-coherent sets of institutional logics, the dominance of which can take on varying degrees of institutionalization. Highlighting the internal contradictions within regimes, this diversified understanding raises attention to the institutional work and institutional entrepreneurship of situated actors through which regime elements are actively upheld or slightly bent. The institutional perspective emphasizes that transformation attempts are constrained by the very structures that they seek to transform. In light of this paradox of institutional embeddedness, regime change is hardly conceivable in terms of actual replacement. Instead, it is rather a matter of strategic accommodation to dominant rules, gradual expansion of deviant practices, and especially of conscious re-balancing and hybridization between rampant, colonizing institutional logics. Having focused on various innovations in social relations and processes of 'socio-institutional' transitions (Cf. section 3) our TSI research has underlined the transformative significance of this institutional hybridization.

4.2 Findings

Our empirical investigations involved various social innovation initiatives seeking to bring about transformative change in the dominant institutional structures of their particular organisational fields. Similar to the relative outsiders focused on in grassroots innovations (Seyfand & Smith 2007; Seyfang & Haxeltine 2012) and community-led transitions literatures (Celata & Colletti 2018), our studies were rather 'movement-centered' (Fligstein & McAdam 2011) - attentive to the distributed agency through which alternative social relations institutionalize in broader action fields, but still following particular groups of challengers in their interactions with various incumbent and intermediary actors. This focus raised attention to three striking aspects of their repertoires of 'playing into regime instability':

1) The ambivalent search for an 'institutional home'. As our empirics mostly comprised challenging 'outsiders', they brought out particularly strongly how much 'playing into regime instability' is done by actor collectives that are weakly positioned. Frontal strategies of regime replacement thus amount to uphill struggles with little chance of success. Moreover, the initiatives typically struggle to sustain their promotion of alternative social relations. Seeking to secure the resources to do this, they feel the need to ensure some 'institutional home'. This search is ambivalent, as the institutional accommodation is known to entail cooptation, disciplining and dilution of transformative ambitions. Many initiatives can be seen to aspire to a certain institutional nomadism, involving light organizational structures and limited dependence on established institutions. This results in a proliferation of platforms, 'labs', and 'spaces', and in conscious efforts towards 'institutional mimicry' (Teasdale and

Dey 2016): subtle discursive strategies to position social enterprises as contributors to Big Society policy objectives, active monitoring of impacts in terms of employability and social inclusion, and recasting of Hackerspaces into FABLABS as ways to conceal anarchistic dispositions. A key stage for this ambivalent search for a (temporary) institutional home is the industry for project funds.

- 2) The articulation of internal contradictions in institutionally abundant contexts. Most initiatives do not position themselves as extra-institutional actors. There are the examples of initiatives filling the 'voids' of institutionally impoverished political contexts (e.g. the social economy in post-communist Romania), or the initiatives waging struggle against repressive governments (e.g. housing cooperatives in dictatorial Argentina), but even then they start from an awareness of institutional abundance. In line with Mair et al. (2012), they tend to problematize how relative institutional voids emerge amidst dense institutional webs of markets, state organizations, cultural norms, ingrained modes of organization, and hegemonic discourses: The Basic Income thus articulates how the hyper-complex social security systems create side effects of poverty traps and alienation, the ethical banks articulate the gap between commercial banking and filantropy, and the Science Shops articulate how a rationalized and matured system of academic institutions has created a disconnect with civil society.
- 3) The conscious efforts to create expandable models of institutional hybridization. The awareness of institutional abundance leads in turn to transformative social innovation that typically takes the form of institutional hybrids: Social enterprises, participative governance, commons, sharing circles and associative democracy arrangements, and various constructions of science-society collaborations. These typically show how TSI revolves around the recombination of and experimentation with institutional logics often involving the construction of relatively small-scale institutional arrangements that serve as showcases and proofs-of-principle for similar institutional hybrids elsewhere.

The described processes of institutional hybridization constitute an empirical extension of transitions research to organizational fields in which 'regime shifts' involve rebalancing, more than replacement. The initiatives bend and recombine institutional logics, under the constant awareness of being constrained by the institutions that they 'play with'. In line with Funfschilling & Truffer (2014), we have invoked (relational) institutional scholarship as theoretical extensions to make sense of this transformation-through-hybridization and its paradoxes (Emirbayer 1999; Seo & Creed 2002; Sewell 2005; Fligstein & McAdam 2011; Lowndes & Roberts 2013). Other highly relevant theoretical resources were the various critical literatures on social innovation (Swyngedouw 2005; Jessop et al. 2013), Third Sector scholarship (Nyssens & Defourny 2008; Dey & Teasdale 2016; Avelino & Wittmayer 2016), work on 'diverse economies' (North 2010) and the explorations of 'real utopias' (Wright 2010).

4.3 Implications

Our TSI research has underlined the transformative significance of institutional hybridization processes, as the concrete ways through which the 'playing into regime instability' takes place. Alongside with it, we have come to appreciate the institutional-theoretical sensitivity to

the paradoxes of innovation that targets and simultaneously thrives in institutionally abundant settings. These paradoxes seem to be particularly acute in processes of emphatically social-institutional innovation (see also Westley et al. 2017). For transitions research, this highlights the advantages of theorizing regime shifts in terms of socio-cognitive rules. Admittedly, this complicates the explanation of socio-technical transitions as shifts between social-material system states (Svensson & Nikoleris 2018). On the other hand, the institutionalist conceptual apparatus acknowledges that system-innovative 'impacts' indeed tend to involve ironies, ambivalences and symbolic feats, as far as transformation attempts involve norms, framings, relations, organization models and other forms of institutional changes. The institutionalist analytical sensitivity to system hybridization processes helps to handle the paradoxes of 'regime tension modulation'. The pervasiveness of these paradoxes has been formulated earlier in the reflexive governance stream of transitions research.

5 New organizational forms: From niche breakthrough to individual empowerment

5.1 Introduction

Theorizing system-wide transformation, transitions research has always been guided by a particular interest in the development, survival and transformative impacts of evolutionary niches. In line with the more generally expanding 'frontier' of transitions research, this has led to a proliferation of new niche species such as the 'social niche' (Doci et al. 2015), the 'grassroots niche' (Seyfang & Smith; Seyfang & Haxeltine 2012) and the various other accounts of community-led (Celata & Colletti 2018), social entrepreneurship based (Witkamp et al. 2011) and 'restorative' niches (Ziegler 2017). This typically turns analytical attention beyond the 'usual suspects' (Smith et al. 2010: 446), observing the innovative agency of hitherto somewhat under-exposed actors from social movements, civil society, social enterprise, and the Third Sector. Grassroots innovation research has pointed out the different idiosyncrasies and development patterns involved, but these empirical extensions still largely bear the functionalist imprint of Strategic Niche Management. A striking particularity of the 'social niches' is their experimentation with new organizational forms. It is surely worthwhile considering how these enhance the capacity of these collectives to induce regime shifts and transformations in societal rules (Doci et al. 2015; Beckert et al. 2018). The transformative significance of the new organizational forms cannot be reduced to this upscaling teleology, however. In line with the 'spaces for deviancy' described by Longhurst (2015) and the moves towards 'innovation democracy' described by Smith (2017), our TSI research has underlined that these new organizational forms need to be understood through the processes of collective and individual empowerment that they are meant to engender.

5.2 Findings

Roughly in line with Witkamp et al. (2011), our investigations of various social innovation initiatives has taken transitions research to other empirical domains. As detailed in section 3, these initiatives addressed a particularly broad variety of 'persistent problems' – calling into question whether these initiatives could be taken as 'transition initiatives' (Cf. Ehnert et al. 2017), and raising questions about the capacity of 'sustainability transitions' research to grasp the broader set of 'persistent problems' at issue. Committed to observing the empowerment processes through which the initiatives would be enabled to realize their promises of transformative impacts (Cf. Avelino et al. 2017), many of our case studies brought out rather internally-oriented empowerment processes. Particularly striking was the widely shared experimentation with new organizational forms, and the associated search for empowering social environments.

The striving for empowering organizational forms speaks from the ways in which they cast themselves as Transition *Towns*, Ecovillages, Living Labs, Slow Food 'convivia', Fab Labs, Hackerspaces, seed exchange networks, sharing circles, sheltered work places, Science Shops and Impact Hubs. These names reflect conscious searches for relatively light, informal institutional homes (Cf. section 4). Moreover, we found that these organizational forms were not only about the strategic positioning in institutional contexts, but were also materializations of the particular modes of self-governance and social interaction that the initiatives were striving towards. The various 'labs' and 'spaces' reflected searches for inclusive, ideologically open modes of joint experimentation. Various applications of 'sociocracy' and cooperative structures reflected searches for radically democratic modes of collective decision-making. The initiatives shared a strong awareness of the subtle ways in which unbalanced power relations and exclusionary mechanisms could creep in, minding issues of gender, race and social stratification. Exemplary for the latter is the Timebanks' insistence that every worked hour be valued equally.

This typical experimentation with new organizational forms has been a key ground for us to complement our empirical extension of transitions research with theoretical extensions. Realizing that the new organizational forms were not just the 'orgware' instrumental to 'niche breakthrough' but rather a key dimension of what was being innovated, we conceptualized social innovation as the promotion and enactment of new social relations, involving new ways of doing, organizing, framing and knowing (Cf. Haxeltine et al. 2017a). For this relational framing we drew on the co-productionist view on transformative innovation proposed by Chilvers & Longhurst (2015), but also on social innovation literature - which typically underlines how this kind of innovation involves changes in the very processes and actor relations through which innovations are being produced (Cf. Moulaert et al. 2013). Beyond and in conjunction with this fundamental conceptualization of TSI in terms of changing social relations, theoretical extension has been particularly worthwhile regarding the behavioural-organizational dimensions of these 'social niches'. The transformative significance of the new organizational forms can only be adequately appraised when accounting for the individual and group-level empowerment that they afford. We have invoked insights from social psychology to clarify their essential fulfilment of basic psychological needs: They afford social environments in which individuals can act on their values and life projects (autonomy), use and develop their talents and skills (competence), and do so through meaningful interaction with others (relatedness) (Cf. Avelino et al. 2017; Haxeltine et al. 2017a). In turn, these social-psychological specifications have helped us to answer important questions on the historical emergence of social niches (era- and contextspecific social problems of disempowering organizational forms), and on the sustenance of transformative agency (the motivations and behavioural feedbacks preventing individuals from resignation).

5.3 Implications

The above TSI research findings elicit the behavioural-organizational dimension of social niches. This has remained a bit of a black box in transitions research, especially as far as the SNM research tradition approaches these processes through 'upscaling' rationales. Smith & Raven (2012) exemplify how SNM research is continuing to deepen itself – yet the fleshing out of 'empowerment, nurturing and shielding' processes remains oriented towards niche breakthrough. It is clear however that our explorations have addressed a territory that is gaining attention, notably through the grassroots innovation tradition. Work on communityled transitions typically explores the lifeworlds and motivations of the individuals and groups involved, looking beyond their instrumental significance for transitions objectives (Aiken forthcoming). Likewise, there is clearly growing interest in the particular motivations that drive the various 'sustainability experiments' (Sengers et al. 2016) and 'alternative milieus' (Longhurst 2015). We have stressed in this regard that the black box will have to be opened through theoretical extensions. As sketched, social-psychological insights seem quite indispensable if the objective is to gain insight into processes of individual empowerment without continued projections of transition teleology. On the other hand, there are limits to such 'individualizing turn' in transitions research. In line with Geels (2010), we need to consider the commensurability between behavioural insights and systems-evolutionary theorizing. It is therefore particularly worthwhile for transitions research to draw on social psychological insights that focus on group dynamics. Ideally these are combined with insights from organization theory and governance literature, to grasp the broader transformative significance of the new 'knowings of governance' that the social niches are disseminating (Cf. Stirling 2016; Smith 2017). The key implication of our TSI research is therefore that the typical new organizational forms of 'niches' need to be understood through the processes of both individual as well as collective empowerment that they are meant to engender.

6 The translocal mobilities of 'social niches'

6.1 Introduction

In hindsight, TSI theory has also contributed to the geography of transitions, and in particular to the translocal development and mobilities of 'social niches'. The spatially unequally distributed unfolding of transitions processes has gained its place on the transitions research agenda (Raven et al. 2012; STRN 2017). Still, much remains to be discovered about the ways

in which transitions theory and its systems-evolutionary modes of theorizing can be equipped with consistent spatial elaborations. As pointed out by Hansen & Coenen (2015: 93), the SNM distinction of 'global' and 'local' niches does not constitute a geographical understanding. Instead, they see how transitions researchers have recently started to specify the translocal development of niches. In this regard it has been found that inter-organisational relations across scales are particularly important for the development of shared visions and the development of collaborative projects (ibidem: 100). Adding dearly needed comparative insight on the embeddedness and connectivity of niches, our TSI investigations underline the specific importance of translocal policy mobilities.

6.2 Findings

Our comparative empirical study of 20 transnational social innovation networks can be appreciated as an empirical extension to ongoing work on niche development, especially highlighting the spatial dispersal of niches. Our case studies on 'locally rooted and transnationally connected' social innovation initiatives started from the awareness that the local embeddedness and grass-roots of these initiatives was often accompanied with translocal and international ties, i.e. the positioning of local initiatives as parts of broadly extended social (innovation) movements. Selecting 20 cases of SI networks with a demonstrable minimum degree of translocal agency (websites testifying to a certain degree of coherence and organisation), the embedded-case studies investigated the operations of the translocal networks as well as two 'local manifestations' in different countries. The case studies roughly followed the key rationales for niche development as postulated through SNM scholarship, i.e. the articulation and refinement of expectations, network formation and social learning. Exploring a broad range of empowerment mechanisms, the case studies have been particularly attentive to the significance of translocal linkages between SI initiatives:

The investigations of these translocal linkages substantiated the importance of 'policy mobilities' through which innovation initiatives and modes of governance circulate. Initiatives like Slow Food, Ecovillages, Transition Towns, FabLabs and Hackerspaces exemplify the common but still surprising phenomenon that these may 'go viral' (Temenos & McCann 2013: 344). Similar to what has also been observed with regard to urban policies, public branding tropes and policy models, also several of the studied social innovation initiatives have developed into formats with a broad international currency - indeed displaying the 'policy tourism' dynamics (ibidem: 334, see also Pfotenhauer & Jasanoff 2017) generated through emblematic social innovation seedbeds such as Porto Alegre (participatory budgeting), Transition Town Totnes, Ecovillage Tamera or the Dutch Science Shops. Studying social innovation initiatives as the promoters of new ways of doing, organizing, framing and knowing, their transnational linkages involved the circulation of practices, organizational models, transformative concepts and expertise. Particularly striking phenomena in this regard were the efforts to create shared identities through narratives of change, logos, charters and online mappings: The RIPESS network for solidarity-based economy and the Shareable network were exemplary for the latter: Consciously increasing the exposure and visibility for initiatives not always known and acknowledged as members, they develop internal and external awareness of the critical mass constituted by these movements. Equally striking is the circulation of organizational models such as 'sociocracy'

(Global Ecovillage Network), the open network structures of the Hackerspaces and the format of the seed exchange meeting.

6.3 Implications

To be sure, these observations on the translocal 'policy mobilities' of social innovation initiatives are largely in line with SNM insights about niche development. The translocal linkages serve purposes of creating positive expectations, drawing in allies, and organizing processes of social learning. Still there are reasons to take these observations as more than empirical extensions along well-established theoretical categories. In line with relational perspectives on transitions geography (Hodson & Marvin (2010), Späth & Rohracher (2010) and Raven et al. (2012), our TSI theorizing has invoked various relational research strands to articulate how the studied 'social niches' typically reach well beyond their '10 square miles' (North 2010). Our empirical observations reminded of the particular relevance of what Czarniawska & Joerges (1999) famously pointed out: compared to the actions and objects that they tend to shape and are shaped by, innovative *ideas* travel particularly fast.

The key implication from our TSI explorations is that transitions research should develop greater theoretical and methodological sensitivity to the translocal mobilities of (social) niches. This can be done through theoretical interplay with various research strands that through their STS imprint are quite compatible with transitions research. Important advances in the theorization of urban transitions have been made by Hodson et al. (2017) for example. Along a typical STS mode of analysis, they point out the challenges of fitting in the fastcirculating of solution strategies with institutionally path dependent and materially obdurate contexts. Other useful theoretical resources are the STS-based understandings of social movements in terms of 'translocal assemblages' (McFarlane 2009: 566), articulating how collective transformative action is accelerated and changed by the information society (Kelly Garrett 2006). More generally, it seems useful to study niche 'circulations' through coproductionist (Jasanoff 2004) modes of analysis. This elaborates the typical interplay between innovative ideas, actions and objects (Czarniawska & Joerges 1999, see also Chilvers & Longhurst 2015), whilst enriching the predominant transitions focus on technological diffusion with an appreciation of the particular transformative potentials of counterhegemonic discourses and seminal ideas (Westley et al. 2017; Pel & Backhaus under review).

7 Temporalities of transition: Re-emergence and cyclical transformation

7.1 Introduction

Temporality is a fundamental dimension of transitions research. As co-evolutionary processes of (radical) change unfolding over time, transitions call for process-theoretical approaches (Geels & Schot 2010). Critical questions have been raised however about the particular temporal frameworks that guide investigations of sustainable 'innovation journeys' (Garud & Gehman 2012). Svensson & Nikoleris (2018: 467) point out how even the (explicitly processual) MLP-based analyses often fall short in providing process explanations, i.e. in

identifying the necessary and sufficient conditions through which sequences of events are causally linked together. More generally, transitions research needs to deal with the notorious process-theoretical risk of conflating temporal patterns with causal mechanisms (Grzymala-Busse 2011): Having gained allure through its straightforward presentation of interlinked change processes (Smith et al. 2010: 441-442), the MLP heuristic exemplifies how transitions research has spawned particularly compelling process narratives that call for elaboration (Cf. STRN 2017).

7.2 Findings

Our TSI research has been shaped by the pervasive idea of a 'recent rise' of various transformation-minded social innovation initiatives. We have similarly been inclined to interpret the apparent convergences between initiatives' transformative ambitions, sustainability objectives and transition narratives along the typical transitions narrative of increasing path-creating momentum. Our empirical observations did not support our initial Scurve readings however, in ways very similar to the analysis of Ehnert et al. (2018: 20). Verifying how 'transitions initiatives' could induce the 'accelerating phase' in urban transitions, they reached the telling conclusion that the empirical evidence strongly challenged such process understanding: "Studying sustainability transitions from the perspective of city-regions, we find dynamics of acceleration, deceleration and stagnation with different time frames and geographical coverage to unfold in parallel. We observed several transitions — transitions towards both sustainability and un-sustainability— to co-evolve. This implies that sustainability transitions should be re-conceptualized as heterogeneous processes with multiple dynamics of acceleration, deceleration, and stagnation, varying over time, space, and domains within the city-regions."

Our empirical observations on 20 SI networks evoked a similarly confusing picture. Their assumed 'recent rise' proved historically only partly adequate. The initiatives of social entrepreneurship, sustainable design practices, the sharing economy and renewable energy did exhibit particularly contemporary innovative spirit, and also the Living Labs, the Hackerspaces and the ethical banks appeared to be highly era-specific moves towards new social relations. On the other hand, initiatives like the Ecovillages, the seed exchange movement, the cooperative movement, the solidarity-based economy movement and Slow Food displayed strong dispositions towards restoration, maintenance and re-invention – the promoted ways of doing and knowing had been common practice earlier or elsewhere. On a closer look, even initiatives with a pronounced image of novelty (like the FABLABS, Timebanks and the Transition Towns) could be retraced to alternative practices well predating their supposed 'emergence'. We thus observed how a large share of our 20 social innovation initiatives amounted to examples of 'niche restoration' (Ziegler 2017) and 'pockets of persistence' (Shove 2012). In line with Godin & Vinck (2017), we became aware that the identification of the initiatives as 'innovations' was itself historically shaped.

We also observed how many of the initiatives (and the practices promoted by them) evolved through patterns of oscillation, i.e. through alternating moments of fading and re-emergence. The system-transformative significance of the Flemish social and sheltered work places oscillated along with the societal discourses and policy frameworks on the Social Economy

(Pel & Bauler 2017), the Argentinian housing co-operatives shifted between underground existence and partner in policy-making, and the Timebanks and sharing associations were seen to pop up and recede again along with the scope and concrete needs for these 'shadow systems' in particular institutional settings. Basic Income advocacy was particularly striking for its intermittent 'peat fire' pattern: existing over several centuries, this utopian concept has repeatedly appeared nearly extinguished before it flared up again. And whilst certain socially innovative *concepts* remained in circulation over long periods, many initiatives often turned out as fragile and transient carriers of them.

The observed temporalities of 'social niches' challenged our process understandings along the progressive S-curve template. Regarding our articulation of the apparent relative novelty and re-emergence, our analysis has been sensitized initially through historical accounts of particular (sets of) well-documented social innovation cases, such as the Social Economy (Moulaert & Ailenei 2005), see also the 'restorative niches' described by Ziegler (2017). As our overall theoretical framing of TSI took further shape, this understanding was refined through more specific understandings such as 'institutional remembering' (Lowndes & Roberts 2013), 're-invention' (Godin & Vinck 2017), and more generally the sensitivity to transient entities in relational social theory (Emirbayer 1997). Regarding the related process narrative of cyclical transformation, Moore et al. (2012) have provided an initial understanding by conceptualizing social innovation processes in terms of the 'adaptive cycle' of resilient systems. Most important for our understanding of the 'oscillating' existence of the social niches has been the Polanyian dialectical framework of political-economical transformations, however. This framework raises attention to the fundamental societal tensions and systemic contradictions that these niches are both playing into and expressions of (Cf. Kemp et al. 2016 and Westley et al. 2017: 244-246). Through such dialectical perspective, the social innovations can be appreciated as temporarily reconciled and then resurfacing tensions, involving antinomies between private gains and collective security, communicative and instrumental rationality, inclusion and exclusion. They keep re-surfacing across the various rule systems that gain dominance over time.

7.3 *Implications*

Providing further substantiations of the 'diverse transformations vs integrative transitions' argument of Stirling (2011; 2016), our observations of TSI phenomena call for a reconsideration of the prevailing process templates of transitions research. The metaphor of the transition 'racetrack' is as persistent as the idea that the fostering of transformative change revolves around acceleration. Having reflected on the temporal aspects of our data and exploring various alternative accounts of social innovation evolution, the key implication is that transitions research needs to develop refined process narratives, accounting for patterns of re-emergence and cyclical transformations.

The basic idea of this process-theoretical move has of course been proposed earlier. Invoking other strands of research, we have found how it is actually a quite intuitive process understanding — at least from the more stability-oriented perspective of institutional evolution. For transitions theory it seems indeed to denote the 'shadowy side 'of innovation (Shove 2012), however, which as such is difficult to integrate into main concepts and understandings (Cf. Godin & Vinck 2017). Regarding the generative mechanisms underlying these re-emergence and cyclical transformation patterns, much is still to be clarified. A

particularly ambitious attempt in this regard is the theorization of 'deep transition' processes by Schot & Kanger (2018:11). This comprehensive approach to the historical layering of regimes and meta-regimes accounts for our re-emergence phenomena through mechanisms of evolutionary retention and socio-technical sedimentation: Rather than either perishing or breaking through, alternative 'niche' practices are considered to remain in place, re-emerging once new forms of systemic contradictions make them relevant again. Importantly, this 'deep transition' approach is thus seeking to integrate the sensitivity to cyclical processes with the transitions-theoretical analysis of successive socio-technical-economic paradigms. In terms of the rather 'socio-institutional' (Loorbach et al. 2017) transitions that we have been dealing with, this amounts to process theorizing that accounts for both institutional transformation cycles as well as the path-creating qualities of seminal social philosophies and governmentalities (Westley et al. 2017:5).

8 Conclusion

We have focused our social innovation research onto the transformative potentials of these new social relations. Raising similar research on transformative dynamics and agency and working with roughly similar theoretical assumptions, our exploration has arguably proceeded within the field of transitions research. Rather than prematurely coining 'TSI' as an alternative model, we have started from the modest understanding of TSI as an empirical extension of transitions research. We have discovered soon however that such empirical extension is hardly useful if not accompanied with due consideration of the needs for theoretical extension. Following this general commitment to theoretical reflexivity and empirical curiosity, we have identified several particularities of TSI phenomena that seem to have relevance for the broader field of transitions research. Hence our research question: What are the main implications of recent research on TSI for the core concepts and theoretical framings of transitions research?

This has led to the following five implications:

- 1) The empirical extensions to transitions research need to be accompanied with thorough reflection on the particular 'persistent problems' around which new transition contexts are forming.
- 2) Transitions research needs institutionalist understandings of regime instability, in order to gain a better understanding of institutional hybridization and the associated transformation paradoxes.
- 3) The new organizational forms of 'niches' need to be understood through the processes of both individual as well as collective empowerment that they are meant to engender.
- 4) Transitions research needs to develop greater theoretical and methodological sensitivity to the translocal mobilities of (social) niches.
- 5) Transitions research needs to develop refined process narratives, accounting for patterns of re-emergence and cyclical transformations.

Addressing different core understandings and formulating different kinds of recommendations on them, these five implications form a rather diverse set of insights. It is

therefore worthwhile to briefly consider the coherence between them, and to reflect on the need and scope for integrating them into the core transitions-theoretical understandings.

The mutual coherence between these insights resides in the relational conceptual framework that has guided our TSI theorization (Haxeltine et al. 2017a, b; Avelino et al. 2017). This has sensitized us to the recurring themes of diversity, hybridization, distributed agency, instability, and the recursivity between agency and structure. The mutual coherence can also be seen in the particular kinds of theoretical extensions through which we made sense of the various transformative contexts observed. In line with the emerging 'social-institutional approach' to transitions as sketched by Loorbach et al. (2017) (Cf. section 3), we have drawn extensively from various (relational) strands of social research, from political-administrative sciences. These choices anchored our social innovation research strongly in the humanities, as recommended by Moulaert et al. (2017). Our TSI theorization has thus substantiated what a 'socio-institutional approach' to transitions could look like: It approaches regime shifts through an emphatically institutionalist understanding, reinvigorates the roots in reflexive governance and STS, situates transitions research in a tradition of critical social theory, and informs its assumptions about transformative agency through social-psychological and organization-theoretical insights into individual and collective empowerment.

This rough characterization as a relational, socio institutional approach immediately reminds that our TSI theorizing is only partially commensurable with core understandings of (in origin socio-technical) transitions theory. It does not build on the roots in evolutionary economics and history of technology and provides insights that cannot easily be integrated into functionalist analyses of systems change. Just as applies to similar fine-grained, multiplicity-oriented approaches to transitions research (Jørgensen 2012; Hodson et al. 2017), one cannot fully reconcile relational fluidity with systems-theoretical accounts of transformation mechanisms (Geels 2010). Our exploration of 'socio-institutional' transitions has also shown concrete limits to the construction of integrative transitions frameworks: However impressively integrated into a multi-dimensional understanding of dominant systems, the 'regime' notion is difficult to operationalize into a balanced account of the materialities and the social-institutional structures that societal systems are made of (Cf. Svensson & Nikoleris 2018).

This limited commensurability means that our implications are better not taken as straightforward add-ons to existing transitions knowledge — as further broadening of an integrative perspective on sustainable development issues that is already very encompassing. Our implications rather guide the many recent attempts to investigate under-explored transition contexts — which are in fact far from unexplored, as testified by the abundant dedicated scholarship on specific social innovation issues, initiatives, dynamics and fields that has informed our TSI research.

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