

Innovation Studies, Social Innovation, and Sustainability Transitions Research: From mutual ignorance towards an integrated approach?

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Extended abstract

Transformative change has become the focus of various strands of innovation research in recent years. This paper focuses on the confluence of three main strands of innovation research and their contributions to better understanding processes of goal-oriented transformative change in society, namely i) innovation studies (IS); ii) social innovation research (SI); and iii) transitions research, with its particular emphasis on sustainability transitions (ST).

We revisit the basic assumptions underpinning the three streams in relation to innovation and transformation and explore the room for establishing an integrative framework to better understand transformative change processes.

The notions of transformation and transition, as well as the differences between them have been debated extensively (Hölscher et al. 2018; Truffer et al. 2022). We prefer to speak of ‘goal-oriented transformative change in society’, because it is sufficiently open to capture a variety of normative goals, which innovation and transformation are meant to contribute to, as well as different conceptual understandings of how changes come about. With this, we want to stress that these goals are subject to political and societal negotiations and thus should not be taken for granted. Currently, the notion of sustainability is widely used as an umbrella goal, and for good reasons. Yet, not only may there be alternative ways of formulating societal goals and visions, but also our understanding of what we mean by sustainability evolves and is permanently re-negotiated. For instance, for a few years now, the UN Sustainable Development Goals have tended to supersede the previous three-dimensional framing of social, environmental, and economic sustainability. Further, we prefer to speak of transformations rather than transitions, because we deliberately want to include in our perspective also disruptive and paradigmatic changes that are largely out of control and escape the understanding of transitions as comparatively smooth and purposefully governed processes of change. In other words, transitions are in our view a specific type of transformations.

“Pairs” of these three strands of the literature have already been considered, e.g. i) social and business innovations (Havas 2016; Havas and Molnár 2020), ii) social and technological innovations (Howaldt 2019; Weber 2019), and iii) social innovation and transformative innovation policy (Schot 2019) – but not the three strands together. Thus, we compare these three strands of literature by

highlighting the major differences in their conceptual frameworks, methods, and insights.

Our guiding research questions are as follows:

- What are the similarities, differences, and complementarities in the conceptual underpinnings of these three strands of innovation research?
- What conceptual building blocks of transformation are used? What linkages can we identify in the respective understanding of transformation?
- What contours of an integrative perspective on transformative change can be derived from a critical review of the three strands?

The paper is based on a focussed literature review, composed of two main blocks: i) the results of several major research projects on social and business innovation and ii) the more recent discourse on social innovation and societal transformation, identified through a systematic, focussed search in ScienceDirect of papers published between 2016 and mid-2021.

We characterise the three strands of literature along the key features of innovation processes, namely: the principal aim of innovations, the 'subject' and the levels of change induced by innovation, the main actors and their interactions during an innovation process, the sources and types of knowledge (co-)produced, utilised and exchanged during the innovation processes, how success and impact are defined and measured, and the diffusion mechanisms. We also discuss how transformation dynamics is understood in these strands of the literature.

Innovation studies still limits its analytical efforts on business innovations, in spite of the 'all-encompassing' label of this paradigm. Compared to the other two strands, this paradigm would need to put more emphasis on considering the various actors' – investors, managers, researchers and engineers, users as co-producers of innovations, consumers, and policy-makers – cognitive frames as major driving forces shaping innovation processes. As its firmly rooted in the business logic, its normative dimension is underdeveloped yet, although there are signs to consider innovations not only as sources of commercial success but also recognise and assess their – often unintended – social and environmental impacts.

Social innovation research lacks the conceptual sophistication of innovation studies and sustainability transitions research. It tends to downplay the role of science and technology as major drivers of social change, as well as that of top-down changes as drivers of innovation and transformation. Further, SI research does not distinguish different levels of change in a systematic, clear-cut way as the other two strand do. As a closely related issue, measurement remains a largely unresolved task. This relative 'underdevelopment' is to a large extent due to intrinsic difficulties, namely the complex and complicated nature of SI processes and the social issues that SI initiatives attempt to tackle. We also need to realise that not everything that is important can be measured, and not everything that can be measured is relevant.

Sustainability transitions pursues a strongly normative agenda and tends to ignore the multitude of societal goals and transformation drivers that may guide and shape transformations, in particular the role of generic and disruptive technologies. This goes hand in hand with over-emphasising bottom-up learning processes and down-playing the influence of top-down impulses to trigger transformation processes.

These deficiencies clearly show that a better integration of these three strands, as well as mutual learning among their scholars is needed as a foundation of a deeper and more germane understanding of goal-oriented transformation processes in economy and society. We can distinguish four types of advantages of a potentially fruitful integration of these three strands of the literature.

First, we might arrive at *a better understanding of normative issues*. Can we identify further meaningful, desirable ambitions other than sustainability transition? Earlier the parlance used to be “economically, socially, and environmentally sustainable development”. Nowadays these ideas are enshrined in SDGs, sustainable development goals. This evolution and reframing suggest that we should not just take “Sustainability Transition” as given, as an ambition set in stone; there might be possibilities to arrive at more meaningful normative ambitions. To explore that we need transparent, more appropriate – and cost-efficient – methods for organising normative dialogues, better serving societal needs. Those dialogues can identify inevitable tensions among countries and social groups with different experience, worldviews, values, and ambitions and after participatory, systematic deliberations the actors can arrive at shared visions, specific objectives, and joint, effective actions.

This leads to further *theoretical and methodological* implications. A common framing of goal-oriented transformations in society would advance theory building. Currently we have different levels of abstraction in IS, IS, and TS. A move towards an integrative framework would rectify this deficit. Considering these three strands of literature together can lead to a new, more comprehensive theory of change. As a first attempt towards that ambition, we consider a few building blocks of an integrative framework, namely i) goals of change; ii) types and levels of change; iii) sources of change; iv) processes and mechanisms of change; and v) a set of criteria to assess the impacts of transformations.

Building on those results, *strategic and policy implications* could also be derived. An integrated approach to goal-oriented transformations can underpin more effective strategies for various types of actors, as well as more effective public policies. While there are inevitable tensions among the different types of actors, there are also complementarities among them in terms of their capabilities and opportunities to act, e.g., when orchestration of changing technologies, infrastructures, social and business networks, cognitive frames, institutions, and social practices is needed to set in motion certain goal-oriented transformation processes. This is a *practical implication* for innovators – ‘change agents’ – who need several, if not all types of approaches currently ‘treated’ in isolated ways in the three strands in terms of theorising, policy-making, and acting.

Keywords: Business innovation studies; Social innovation research; Sustainability transitions research; Conceptual underpinnings; Comparative analysis; Focussed literature review; Goal-oriented transformative change in society; Integrative framework to analyse goal-oriented transformative change