Abstract: This paper aims to contribute to the understanding of the potential of Social Innovation (SI) for social transformation. Being a popular concept, SI has been discussed for decades, increasingly recognized for its complexity. A systematic review of the literature on SI was undertaken to understand the state-of-the-art, the evolution of the concept and its core underpinnings in order to meet the research aim of this paper. The literature is relatively broad in relation to general characteristics of SI and contexts where it is happening, but the use of the ‘social innovation’ term often reveals semantic problems, generating multiple, interchangeable and mixed understandings. In this paper, we identify and discuss two ways of using SI in the literature: (i) one that favours the materialization of SI, as something tangible that can be observed, measured and systematically analysed; we called this a cartesian approach; and (ii) another that uses systemic thinking focussing on successful factors of SI to enhance its transformative capacity in existing system(s) through change in routines, resources, and beliefs; we called this a disruptive approach. While still emerging in SI literature the academic discussion about SI dynamics and its transformative capacity is increasingly addressed by scholars. We conclude the paper by arguing that more transformative-driven and systemic SI may enhance its potential to lead change, while it only creates transformation when it scales-up or out, and when it has durability and transformative impact.

Keywords: social innovation; transformative capacity; transformation

1. Introduction

Social Innovation (SI) has been discussed for decades and recognized for its complexity. Over the last 20 years, research on SI has increased exponentially. The apparent acceleration of global crises and recognition of wicked problems are among the causes of the recent boosting with the use of SI [1,2]. SI has been described as being context specific [3], involving some degree of novelty (in all cases or only in the context where it occurs) [3–9] and practical application. It seems well acknowledged in the literature that it is not enough simply to have an innovative idea, but it also needs to be implementable, and actually implemented [5,6,8]. SI promotes social inclusion, quality of human life and well-being [10–13], changing social relationships [7,8,10,13,14], engaging and mobilizing beneficiaries [3,8], creating new roles and relations, enhancing society’s capacity to act [6,15] and empowering its beneficiaries [3,9].

SI can be bottom up or top down [8], influenced by its social-cultural and social-political context [13] with high levels of uncertainty and unintended consequences [6,8]. Furthermore, SI seems to lead to specific outcomes that can be measured by the improvement of existing practices, may occur in any sector, and frequently across different sectors [3,4,6], functioning as a process with various stages and phases [6].
With the main objective of understanding the potential of SI to lead to social transformations, a review of the literature was conducted, looking into the origin and evolution of the SI concept, but also exploring its core underpinnings and lines of argumentation.

This review of the state-of-the-art provided the basis for our research aim of exploring the potential of SI for social transformation, through the identification and discussion of two ways of using SI in the literature: (i) one that favours the materialization of SI, as something tangible that can be observed, measured and systematically analysed; we called this a cartesian approach; and (ii) another that uses systemic thinking focussing on successful factors of SI that enhance its capacity to create change and transform existing system(s) through change in routines, resources, and beliefs; we called this a disruptive approach.

SI dynamics and its transformative capacity is increasingly becoming the focus in the academic discussion. Pel et al. (2016) [16] emphasize that the persistence of ongoing societal problems has led to an increased need for transformative SI, which shows that SI is increasingly seen regarding its potential for system(s) transformation [17,18]. Moreover, for the United Nations [19] sustainable and inclusive transformations demand a complete rethink of the existent policies, requiring action now [20]. We support these views on the need to move towards a more transformative-driven concept, using a systemic view of SI.

Reviews on the SI state-of-the-art have already been done to address its multiple understandings. For example, Pol and Ville (2009) [12] have proposed a definition of ‘desirable social innovation’ that, in their view, captures the common denominator of other definitions available in the literature. Dawson and Daniel (2010) [21], Cajaiba-Santana (2013) [22] and van der Have and Rubalcaba (2016) [23], on the other hand, have developed frameworks to investigate SI and to try to make sense of what it is and what it embraces. However, none of these reviews appears to have addressed the potential of SI for social transformation, which is what this paper is about. This paper aims to contribute to filling in this knowledge gap.

Our approach has been to (i) start from what is already out there in the literature, and elaborate theoretically within the existing concepts and definitions, rather than adding one more definition of SI to the scientific debate; (ii) conduct a systematic analysis of the state-of-the-art, contributing to further the knowledge on SI by proposing two distinct ways of looking at SI, instead of just reviewing the available literature; (iii) emphasize the transformative potential of social innovations towards sustainable development, instead of developing another analytical framework that could perhaps be not so different from those already available.

We believe this paper brings “something new to the table” by contributing to conceptualize SI along more dynamic and transformative pathways in line with the sustainability transitions and transformative emerging paradigms. The paper will evolve to systematize and discuss main positions in the literature concerning SI. After describing the method used in the literature review, the paper addresses the rationale for SI, different views and perspectives on the concept and its application. It then explores the arguments in the literature concerning its potential for a more transformative and dynamic concept of SI, before discussing the rationale behind two distinguished conceptualizations of SI and concluding on main findings.

2. Method

In order to meet the intended aim of understanding the potential of SI for social transformation, this paper sets out from a review of the literature on social innovation (SI) theory to first understand the state-of-the-art and the existing concepts and definitions theoretically defined. The review of the literature also helped us to understand the evolution of the concept, the reasons for the emergence of a mixed and disperse understanding of SI, its core underpinnings, and how research conceptualizes SI dealing with its transformative capacity.
A bibliometric analysis was conducted on the use of the term “social innovation” in the literature, using the Scopus database. A search for “social innovation” was done on the title, abstract and/or keywords, reaching a total of 2693 publications.

According to Scopus, publications on SI have been emerging since 1966 (1 publication in the journal American psychologist), apparently becoming trendy in the last 10 years, reaching its maximum in 2017 (443 publications) (Figure 1).

**SI publications evolution**

![Figure 1. Annual distributions of SI publications by Scopus database. Source: Adapted from Scopus.](image-url)

SI appears to have been researched mostly in Europe, in the United Kingdom, with 353 publications (12%). But the SI community is equally represented outside Europe, with a larger representation of the United States and Canada in 349 publications (12%) and 162 publications (6%), respectively.

According to the results achieved with the bibliometric analysis, Frank Moulaert from the Katholieke Universiteit Leuven (Belgium), Frances Westley from the University of Waterloo (Canada) and Howaldt Jürgen from the Technische Universität Dortmund (Germany) are the authors with the larger number of contributions to the SI field, having published 22, 21 and 11 publications (each, respectively) over the years, with current Scopus citation rates of 2328, 3293 and 101 citations, respectively.

Most publications (25%) fall into the social sciences area. Business, management and accounting represent 18% of the publications, while economics, econometrics and finance corresponds to 10% of the total publications on SI. Moreover, the SI term has been used in several other areas, such as computer science, energy, medicine, psychology, mathematics, physics and astronomy or arts and humanities.

The literature reveals that SI is being addressed in a great variety of contexts, showing a relatively broad understanding on general characteristics. For the purpose of this paper the previous search was narrowed to 73 articles, after screening the initial sample with the following criteria: open access articles, in English, with “social innovation(s)” as keyword, published between 2007 and 2017. The review of these 73 articles revealed that social innovation is not central in many papers even though the keyword is used. Hence only 30 papers, being relevant to our research, were included.

Additionally, other publications from Frank Moulaert, Frances Westley or Howaldt Jürgen have been included in the review, even though not in the Scopus database. Also, key academic research projects and policy documents found in Google Scholar were identified and analysed, such as for example, the Atlas of Social Innovation [3] and the Bureau of European Policy Advisers report on SI [15]. With these, together with the previous 30 publications from the Scopus database we reached 75 publications.

In addition, we searched in Scopus for the combination between two keywords: “social innovation” and “transformation”, as in the title, abstract or keywords, only for papers in English and open access.
This search returned additional 29 papers. Our total reviewed sample included therefore 104 papers which we display in the reference list.

3. Rationale for Social Innovation: An Elusive and Pervasive Concept

Over the last century SI evolved as a concept with different meanings and shapes across the world, as shared by a large body of literature [1,3–7,9–11,15,24–31].

Godin, B. (2011) [32] shows that the use of the concept appears to go back to long before the concept of technological innovation. The author argues that SI appears to have entered the Western World vocabulary as “a reliquat to the centuries-old pejorative use of innovation” [32] (p. 6) and that many writers of the time were addressing SI but it was considered socialism or social reform.

Other authors [11,15] trace it back to the industrial revolution to refer to concerns with the work force, or the benefits to working families [11]. It could be said that Max Weber and Emile Durkheim have also contributed to the evolution of the concept, around the 1900s, with Weber addressing the relation between innovation and social order and Durkheim specifically looking into social regulation as an important issue in social cohesion [15]. These authors early understanding of SI was seen to relate particularly to “innovations in the organisation of work and of society” [15] (p. 31).

But it appears that the SI concept becomes more frequently used only after the World War II [33]. SI expands almost exponentially in the literature, according to Westley et al. (2017) [33], with a massive use of the term only after 2000. Encompassing a variety of research fields such as sociology, politics, economy, management, environment, arts and creativity, territorial and regional development, the meaning of SI is still far from reaching a universal consensus regarding a common understanding [33] or the adoption of an accepted definition. Despite academic efforts the concept of SI is still recognized to be elusive and pervasive among academics and practitioners [34]. SI is seen as ubiquitous [35], fuzzy [28], flurry [36], distracting [37], without clear boundaries [1], ill-defined [38] and poorly codified [21,39] therefore being extremely difficult to establish an accepted single definition [34]. This is a major challenge on the use of the concept, which possibly results from the broad range of activities labelled as SI that engage diverse ideas and fields of practice with little in common [30].

Nevertheless, and in order to develop the analysis proposed within the aim of this paper, we have first looked at the prevailing logics underpinning the SI understanding and definitions in the literature. The next paragraphs systematize the main lines of argumentation found in SI offered by sociology, management (especially entrepreneurship) and politics, which will help us to clarify the different understandings of SI.

The influence of sociology in SI research can be found in the focus given to social structures (SI contributing to the establishment of new institutions and disruption of existing ones), to new social practices as well as to social interactions (SI as agents’ improved capacities and empowerment). While most authors emphasize that a basic premise of SI is to meet and satisfy existing social needs [1,3,11,34,40–44], an emerging group of researchers enunciate SI aiming also at social change and social transformation [33,45]. Other authors, such as Dawson and Daniel (2010) [21], and Cajaiba-Santana (2013) [22] and van der Have and Rubalcaba (2016) [23], also appear to recognize sociology as a major underpinning in SI.

The management underpinnings of SI become clear in business, entrepreneurship and social capital to enhance organizational effectiveness. Some researchers understand SI rooted in the entrepreneurship body of knowledge regarding the discovery, evaluation and exploitation of opportunities. The role of the individuals is emphasized in developing new and innovative ways of tackling social challenges that are considered intractable [26,46–49]. Worth (2019) [50] and Moulaert et al. (2005) [51] offer examples of SI as an element of business strategy relating to changes in institutional, human and social capitals leading to organizational efficiency and to the improvement of competitiveness [52–55]. SCHWAB Foundation for Social Entrepreneurship [29] and World Economic Forum [56] provide a business insight on SI as market-based approaches that are innovative, practical and sustainable and that benefit society. Nevertheless, often SI appears to be used interchangeably with other concepts, namely when
referring to social entrepreneurship, social enterprise, corporate responsibility, open innovation and technological innovations that generate social benefits [6]. Although the relationship between these concepts is argued by some authors, because of shared commonalities, arguably these concepts mean different things as also recognized by many scholars [57–68]. van der Have and Rubalcaba (2016) [23] also appear to recognize management as a major underpinning in SI.

Finally, from the politics perspective, the main line of argumentation points to the need for SI whenever there are failures in governance and politics regarding society needs. The Young Foundation [69] and OECD [70] research seems to corroborate this assumption. Results shared by these organizations, concerning local SI cases worldwide, reveal that an important factor leading to SI relate to failures of political leaders. Following this logic, SI is considered as process and strategy that (i) satisfies individual and collective needs explored by the market, (ii) strengthens the solidarity of social relations of the actors involved and (iii) mobilizes these social relations as socio-political empowerment triggers [3,71–74].

The numerous definitions of SI available in the literature appear to relate well to the above lines of argumentation: sociology, management and politics. For example, the OECD [75] understanding of SI seems to follow both the sociology and the management lines of argumentation, defining SI as seeking new answers to social problems through (i) the identification and delivery of new services that improve individuals and communities’ life quality and (ii) the identification and implementation of new labour market integration processes, competencies, jobs and participation forms that improve the social capital.

Another case is the interpretation, apparently rooted in sociology and politics underpinnings, made by Harris and Albury (2009) [76], who consider SI to meet social needs that may have been neglected, or poorly served, by the state or by the private market, addressing major societal challenges.

Drawing on the above, the primary premise in the rationale for SI adopted in this paper is the promotion of social inclusion to respond to social needs and societal challenges, while creating changes in the system where the innovation occurs. This is supported in research developed by Westley et al. (2017) [33], and Moulaert et al. (2005) [51]. According to Westley and Antadze (2010) [31], SI addresses complex processes and problems however not as a steady or tailored solution. Moulaert et al. (2005) [51], in the innovative initiatives analysed, distinguishes between the promotion of inclusion in society as a social rational, from the acquiring of ‘voice’ of future generations by groups normally absent from the politico-administrative system as a political rational.

The above described confirms the mixed and disperse understanding of the concept which, as mentioned, may be encouraging its elusive and pervasive use, risking to undermine its potential for change. Other reviews of SI literature have already been done to address the multiple understanding of SI. For example, Pol and Ville (2009) [12], previously mentioned, recognize a buzz involving SI definitions which motivated their literature review, driven by the significant value of SI as a concept that identifies a critical innovation type, proposing the concept of ‘desirable social innovation’ that, in their view, captures the common denominator of other definitions available in the literature. Dawson and Daniel (2010) [21], Cajaiba-Santana (2013) [22] and van der Have and Rubalcaba (2016) [23], also previously mentioned have, on the other hand, developed frameworks to investigate SI and to try to make sense of what it is and what it embraces. The first [21] does it by looking into the relation between social, technical and business dimensions of innovation, arguing that knowledge domains of social awareness and business innovation must be considered to leverage social meaning and reflection. Differently, Cajaiba-Santana (2013) [22] intended to provide a conceptual framework that would allow to better understand the phenomena of SI and to conceptualize it as a collective creation of legitimate social practices. van der Have and Rubalcaba (2016) [23], on the other hand, used network and bibliometric analyses to explore a set of publications addressing SI, concluding that SI must be grounded in four main intellectual communities: (i) community psychology; (ii) creativity research; (iii) social and societal challenges and (iv) local development. While all these reviews contribute to clarify the understanding of SI, none appears to have focussed on the potential of SI for social transformation, which is what this paper is about.
With this paper we hope to contribute to conceptualize SI along more dynamic and transformative pathways in line with the sustainability transitions and transformations emerging paradigms. We share the understanding led by a stream of authors that recognize SI capacity to create dynamics, transformations in individuals, their community and society.

4. Towards a More Transformative and Dynamic Concept of Social Innovation

Having reviewed the research work contributing to the conceptualization of SI, and with the purpose of understanding how SI may lead to transformations, we distinguish in the literature two groups of authors: one that uses a more conventional analytic approach oriented towards measuring the impacts of SI, proposing a classification of SI into typologies and dimensions (for example, Boelman et al., 2015 [8] and a second group that proposes a more systemic approach based on conditions for successful SI linked to enabling transformational change (such as for example Westley and Antadze (2010) [31]. We have named the first group the cartesian approach and the second the disruptive approach. The following paragraphs briefly address the main differences between the two.

The first group uses analytical lens to look into SI and distinguishes between typologies and dimensions. Tables 1 and 2 contain the core keywords used to express authors’ understanding of SI in relation to typologies (Table 1) and dimensions (Table 2).

**Table 1.** Typologies of social innovation through different authors perspective.

| AUTHORS                  | The Young Foundation (2012) [6] | Boelman et al. (2015) [8] | Wigboldus (2016) [77] |
|--------------------------|---------------------------------|---------------------------|-----------------------|
| SI TYPOLOGIES            | New products                    | New services and products | Socio-juridical innovation |
|                          | New services                    | New practices             | Socio-cultural innovation |
|                          | New processes                   | New processes             | Socio-political innovation |
|                          | New markets                     | New rules and regulations | Socio-ideological innovation |
|                          | New platforms                   | New organizational forms  | Socio-ecological innovation |
|                          | New organizational forms        | New business models       | Socio-ethological innovation |
|                          | New business models             |                           | Socio-economic innovation |

**Table 2.** Dimensions of social innovation through different authors perspective.

| AUTHORS                      | André and Abreu (2006) [10] | Nicholls and Murdock (2012) [2] | Souza and Silva Filho (2014) [78] | Boelman et al. (2015) [8] | Howaldt et al. (2018) [3] |
|------------------------------|------------------------------|-------------------------------|-------------------------------|---------------------------|---------------------------|
| SI DIMENSIONS                | Nature                       | Individual                    | Transformations               | Framework conditions      | Concepts and understanding |
|                             | Stimuli                      | Organisation                  | Novelty                       | Organisational outputs and societal outcomes | Addressed social needs and challenges |
|                             | Resources and dynamics       | Network/movement               | Innovation                    | Entrepreneurial activities that produce SI | Resources, capabilities and constraints |
|                             | Agency relation              | System                        | Actors                        | Governance, networks, actors |
|                             | Creative and innovative means| Process                       | Process dynamics              |

The typologies, or types, of SI (Table 1) can be defined in relation to the context of SI. More specifically, Wigboldus (2016) [77] appears to refer more generally to the context within which the innovation occurs: juridical, cultural, political, ideological, ethical, economic, organisational, technical, ecological or analytical. The SI typologies can also refer to new products, services, processes, practices, markets, platforms, organisational forms, business models and new rules and regulations as the focus or outcomes of SI [6,8].
Within the various identified typologies different dimensions of SI are suggested, distinguishing the structural aspects from the metrics of SI. For example, some of the identified authors [3,10,78] use different terminology but address structural dimensions: what is the innovation and its context (such as concept or nature of SI), what motivates it to occur (such as challenges or stimuli), which resources may be involved, what is the relation between actors, and the SI process dynamics or its spatialization.

Nicholls and Murdock (2012) [2], on the other hand, point to the complexity of measuring the performance of SI, defining the dimensions “in terms of the level of the SI action or impact from the individual to the systems levels” [2] (p. 4). Similarly, Boelman et al. (2015) [8] refer to the need to measure SI, defining the dimensions of SI as three measures to enable understanding the local market size and shape, as well as the impacts and outcomes of SI.

A second group of authors appears to conceptualize SI through the lens of transformational change, featuring critical conditions for successful SI. Research on global environmental change, as resilience or transformative adaptation, embraced the term transformation to “refer to fundamental shifts in human and environmental interactions and feedbacks” [79] (p. 1). For these authors transformation is considered to have (i) a system focus with societal processes at large-scale concerning social-ecological interactions; (ii) complex and uncertain system patterns; (iii) a change in the system that is more focused on generating just and safe spaces and (iv) multi-actor processes including individual and collective motives and values to support the transformation [79]. More particularly when going through a transformation, social systems are expected to change its rules, practices, norms, values, beliefs and to be disruptive in terms of power, authority and resources [79,80].

Some debate still exists in relation to what differentiates adaptation and transformation capacities [81]. Some authors [81] even argue that although some adaptation and transformation capacities may overlap, adaptive capacities may at some point hinder the capacity of a system to be transformed [81]. We agree with Moore et al. (2018) [81] when they differentiate the capacity of adaptation as the ability of the system to adjust to external changes from the capacity of transformation as the ability to create a new system and pathways. This way, transformative capacity can be understood as “the capacity of individuals and organisations to be able to both transform themselves and their society in a deliberate, conscious way” [82] (p. 2).

When searching in the SI body of literature that matches this transformative mindset, SI appears associated to multiple scales of action (policy, procedure, product, process and design) that result, and enable, transformation through change in the system where the problems appear to exist, or appear to have been created. Different areas of application are referred in the literature where transformation linked to SI have been analysed: low-carbon transitions, technological innovation, social-ecological systems (SES), actors and networks. To exemplify, the paragraphs below refer to selected research work and respective areas of application.

Seyfang and Haxeltine (2012) [83] conduct research on transitions in community-based initiatives towards a low-carbon sustainable economy. Their research looks into system wide transformation in socio-technical systems of provision, including grassroots innovations. The purpose is to enable socio-technical transitions able to cope with the challenges of sustainable development, in particular climate change and peak oil.

Some research [84–86] looks at the relationship between SI and technological innovation and how that may create transformational change. Klievink and Janssen (2014) research [84], in particular, investigate the role of SI in the development of socio-technical information infrastructures and its relation to technological innovation.

Other authors look at transformation in ecosystem management using SI as a framework [80,87–94]. This line of research is consistent with SES and resilience thinking approaches [95], the main argument being the need for fundamental transformation of largely sectoral and expert centred ecosystem management institutions [87]. Biggs et al. (2010) [87] in particular emphasize that SI provides a useful alternative framework for studying and understanding factors that may promote transformation in ecosystem management.
Olsson et al. (2017) [96] argue that to achieve a large-scale change and transformation towards global sustainability a more integrated approach to the social and the ecological systems is necessary, recognizing the path-dependencies embedded within systems. They identify integrated approaches to SES as a gap in SI research, requiring a deeper focus on human-environmental interactions related feedbacks. This is what McCarthy et al. (2014) [97] call the act of “bricolage”, or the recombination of existing elements in novel ways, enabling imagination to create new possibilities.

As pointed out by Moore et al. (2014) [80], emerging research on SI is looking more closely to transformation processes driven by networks and actors, along with power issues and relationships. In this case attention is placed on the importance of showing transformative impacts (e.g., [81,98,99]).

Within this more disruptive approach to SI, involving system changes, and considering the reviewed literature, we recognize two main schools of SI research: the Waterloo Institute for Social Innovation and Resilience (WISIR) (https://uwaterloo.ca/waterloo-institute-for-social-innovation-and-resilience/) and the Dutch Research Institute For Transitions (DRIFT) (https://drift.eur.nl). Both schools have been making significant contributions to scientific advances on SI, particularly to its transformative capacity from the perspective of actors and networks considering SES contexts. The following paragraphs make a modest review of their fundamental research.

Research developed by WISIR considers that to understand SI it is necessary to see the world in all its complexity [100]. SI is not just about inventing new things but it is also about recognizing and managing new ideas and ways to do things, with the objective of provoking transformation of the system [33]. WISIR work is grounded on the definition of SI as a “new program, policy, procedure, product, process and/or design that seeks to address a social problem and to ultimately shift resource and authority flows, social routines and cultural values of the social system that created the problem in first place” [33] (p. 4).

Considering that SI is still seeking a solution to address challenges, such as social problems of violence, poverty and homeless, WISIR researchers attempt to identify key aspects of successful SI through the application of new strategies, knowledge and learning. They argue that there are three core conditions for successful SI: they must have durability, scale and transformative impact [31,88,97,101]. The following aspects help to understand these three established WISIR core conditions:

- For SI to achieve a broad transformative impact change needs to occur across scales, and from individuals to institutions, to reduce the SES vulnerability and enhance its resilience [31];
- To be durable, SI should have a measurable impact on the wider social, economic and political context that created the problem [101];
- To achieve durability of the transformation, agents need to find ways of institutionalizing the change they have created [88];
- “Achieving durability and scale is a dynamic process, which requires both emergence and opportunity and deliberate agency, and a connection between the two” [31] (p. 5);
- When innovation with high impact happens what “seemed impossible to change in the world becomes different” [101] (p. 1);
- Durability, scale and impact depend not only on the degree of engagement with the broader social context but upon engagement of a different kind, more of a disruptive encounter; the authors suggest that “scaling up” might lead to the transformation and action that will subsequently lead to the needed “disruptive encounter with power, routine and beliefs” [31] (p. 13);
- It is wiser to think of groups, as for example communities, or actor networks behind successful SI, than to depend on individuals that may (or not) have the necessary skills of (both) the institutional and the social entrepreneurs [14].

One concern raised by the authors relates to the limitation that current social impact measurement paradigms may represent to the ability of society to create effective SI [98]. The reason being that SI not always deliver outcomes that can be measurable in a conventional way.
The other major school of SI research is the Dutch Research Institute for Transitions (DRIFT) that builds on the research initiated by WISIR. Recognizing WISIR core conditions for SI, the DRIFT conceptualizes Transformative Social Innovation (TSI) as “the process through which social innovations gain “durability, scale and transformative impact” by interlocking with system innovation, narratives on change, game-changers and societal transformation” [102] (p. 18). DRIFT considers SI, or indeed TSI, not as a different or particular type of a successful SI initiative [102], but as “a change in social relations, involving new ways of doing, organising, framing and/or knowing which challenges alter and/or replace dominant institutions/structures in a specific social context” [103] (p. 14). This definition was established in a DRIFT research project, named TRANSIT (http://www.transitsocialinnovation.eu), within which a Transformative Social Innovation theory was created, together with a framework for TSI that unfolds as a process engaging changes in social relations, as well as changes to institutions and structures in specific social contexts [7]. It appears this concept of SI is very similar to that defended by WISIR, albeit perhaps with a more explicitly described process.

Inspired in the TSI theory, Avelino et al. (2017) [104] proposed a Manifesto of Transformative Social Innovation with 13 guiding principles of TSI, emphasizing learning and empowerment as key issues to achieve transformation. Moreover, SI success in DRIFT research is dependent upon the following premises [103]:

- SI emerges, “successfully”, in an initiative and amongst a group of people (communities) when they are capable of “dialectically ‘transcend’ (some) constraints (as existing institutional arrangements) of the social context within the ‘experimental space’ they create” [103] (p. 47);
- The processes of reflexive (social) learning are crucial for an initiative or network to carry on over time and space and to successfully adapt to changes in the social context [103]. DRIFT consider a social innovation as a collective of people working on objects, ideas and activities that may be socially innovative [103];
- A strategy of SI for transformative change (as for example deliberate replication, spreading principles or built networks and partnerships) to be successfully implemented depends on many factors, namely on “the skills of SI-actors in understanding (and framing) power relations and working them to their advantage” [103] (p. 81). Moreover, at the individual level, issues like individual intentions, motivation and need for relatedness, competence and autonomy are a major role [103];
- When initiatives of SI are able to expand successfully, they must then establish strategies that allow the persistence of autonomy maintenance and the engagement of external actors and institutions [103].

5. Discussion

The review of the SI literature reveals an unsettled evolution and conceptualization of SI, with many angles of perspectives and understandings. Scholars claim for the need to have a common concept of SI, which is nevertheless difficult because of the inherent complexity in SI together with its current dispersion of uses and concepts. This paper attempted to reduce this dispersion by contributing to a more focused conceptualization of SI, drawing on the existing literature and on dominant philosophical paradigms.

The review conducted inspired us to depict two main different conceptualizations of SI that represent the fundamental theoretical implications of our research. We called one the cartesian approach, because it is more in line with conventional analytical approaches, and the other the disruptive approach, based on more systemic lines of thought and conceptualization. These two conceptualizations reveal differences and complementarities that are discussed in the paragraphs below.

The first conceptualization, which we named the Cartesian approach, appears to look at SI as something more tangible, that can be measured and/or observed, following a more mechanistic rationale, emphasizing its materialization to enable analysis. This is why we call this the analytic or cartesian approach to SI, following the principle of “divide and conquer” to simplify complex systems
for a better understanding, however arguably missing the interconnected dynamics of associated or underlying systems. In this cartesian approach the adoption of typologies and dimensions, or categories of SI, enables a structured and straightforward understanding of SI, in spite of its complexity. But these categories tend to crystallize established norms and narrow actions, with implications for the potential for innovation in SI.

Differently, the second conceptualization considers the transformation generated by SI of inner and outer system(s), acknowledging the need to promote change in these systems that originated the social problems in the first place. This is why we call this the disruptive view of SI, with the innovation occurring at multiple system levels, triggering cross system dynamics to find new ways of creating social value. This disruptive approach to SI is based on the recognition of the dynamics of the system(s) within which SI occurs. It is driven by the capacity of SI to create change and transform inner and outer system(s), not attempting to circumvent but instead taking advantage of the complexity of SI, with SI seen as a contributor to systems dynamics through the change of routines, resources and beliefs. In our perspective addressing SI in such disruptive way can expand its potential to create innovation, allowing it to be transformative to the extent needed.

There are complementarities between these two views of SI that are worth to be explored. For example, setting boundaries, typologies and dimensions is an important contribution to understand the substantive and structural aspects of the SI. This is also useful in more disruptive approaches to enable information about the systems involved and the creation of knowledge. In addition, SI has been presented as being both a process, as a means to achieve desired ends, as in the systemic view, and as outcomes, as the result or the product of an intended action, stream of actions or process, as in the analytic view. These complementarities represent shared commonalities of the two proposed SI approaches, even though, we could argue, the philosophies underneath are quite opposite.

Within the systemic and disruptive view of SI, most authors conceptualize SI through the lens of transformational change, looking into the capacity of SI to transform system(s), whether speaking about low-carbon transitions, technological innovations or SES, actors and networks. In this paper, we agree with those authors that recognize a mutual dependency between SI and transformation, with SI creating change and transformation, while transformation also enhancing SI (Figure 2). We noted however that this mutual dependency is still not much explored in the literature.

Moreover, the creation of transformative capacity relies on the existence of multiple dynamics in the inner and outer systems; actor, networks, cultural, environmental/territorial, political and institutional dynamics. It also considers the interactions between these different dynamics and the changes they promote. A new way of thinking about SI appears to be emerging, where the need for transformative SI is recognized and demanded to deal with intractable social problems as violence, poverty or homeless. To be transformative, SI must focus on learning, on creating knowledge, on promoting transformation and empowering the people involved in the innovations (individuals and communities), while addressing the multiple dynamics and dealing with complexity.

This creation of knowledge, and empowerment of people, may contribute to developing self-governance, where individuals and communities become agents with autonomy and, consequently,
drivers of SI. The expectation is that socially innovative communities, with transformative capacity, can overcome disturbances by themselves, being able to create transformation in their systems towards more desirable states. This can happen in horizontal and vertical processes of governance, that is, when SI is scaled-out across communities or scaled-up to upper levels. SI can have this spill over effect that reaches, replicates and generates change in other, and wider, systems when being successfully implemented.

Two main schools of SI research that follow the systemic and disruptive view stand out in the literature: the WISIR in Canada and the DRIFT in the Netherlands. The two schools adopt a common understanding of SI and communicate a sense of urgency in deepening the potential of SI to enable transformation. We encountered some slight differences between the two. For example, the transformative role of SI is recognized in WISIR but it is explicitly assumed in DRIFT. The SI research focus in WISIR is grounded on SES and adaptive capacity, strongly influenced by the resilience and adaptive management systems school, while DRIFT places greater emphasis on agency and networks. Additionally, WISIR established success factors of SI—scale, durability and impact—and show multiple and varied applications of those factors, while DRIFT departs from the WISIR success factors to define transformative SI. The outcomes of the TRANSIT project in DRIFT includes a proposed framework for transformative SI and case-applications. To enhance the potential of WISIR success factors of SI further research is needed. Understanding SI success through these three pointers can trigger a better implementation of SI.

Our findings reveal that future research is needed in five main aspects:

1. The mutual dependency between social innovation and social transformation. Deeper research on the relation between SI and transformation would allow to explore the apparent mutual dependency between SI and transformation, with SI creating change and transformation, with transformation also enhancing SI;
2. The role of actors in social innovation. Empowerment has been identified along with learning as key issues for SI to be able to achieve transformation of system(s), therefore how and what can be the role of the actors involved in the innovations processes should be also explored in future research;
3. Whether transformations may be desirable or not. The outcomes of systems transformation may not always bring desirable change, so finding whether, and when, social innovation is good or bad may need to be further explored;
4. Success factors such as scale, durability and impact, have been promoted by both WISIR and DRIFT, however further evidence would benefit the understanding of why they can show successfulness in social innovation;
5. Empirical demonstrative cases would help materialize what is social innovation, and bring further light to the debate. We intend to further our research through empirical cases, in the context of the TRUST project which objective is to explore forms of SI, the role it can play in transition processes to sustainability, linking to the role of actors’ networks in such processes and of agents of change to show how SI may have a transformative potential.

6. Conclusions

Despite multiple and varied understandings of social innovation it is possible to agree on a common rationale that can be expressed as the promotion of social inclusion to respond to social needs and societal challenges, while creating changes in the system where the innovation occurs. The literature often shows SI as a process (a means to achieve desired ends) or as an outcome (the result or the product of an intended action or process).

Drawing on the literature reviewed and as discussed above, we recognize in the literature two ways of using SI: an analytical or cartesian approach and a systemic or disruptive approach. While both relevant and mutually contributive, the systemic, or disruptive approach offers a new way
of thinking about SI, where its capacity to create change and transform existing system(s) is recognized and supported by SI literature.

We believe this paper is distinct from other SI literature by (i) starting from what is already in the literature, and elaborate theoretically within the existing concepts and definitions, rather than adding one more definition of SI to the scientific debate; (ii) analysing the state-of-the-art and conduct a systematic analysis, contributing to further the knowledge on SI by proposing two distinct ways of looking at SI, instead of just reviewing the available literature; (iii) emphasize the transformative potential of social innovations instead of developing another analytical framework that could perhaps be not too different from those already available.

Multiple dynamics take place in the inner and outer systems of SI, including actor dynamics, networks dynamics, cultural dynamics, environmental/territorial dynamics, political and institutional dynamics, influencing SI and its transformative capacity, while the interactions between these different dynamics are also relevant in SI. We conclude that the transformative capacity of SI is therefore a function of its own context, subjected to the dynamics of inner and outer systems that may have created the need for SI in first place, recognizing a mutual dependency between SI and transformation.

Our conclusions support the line of argumentation in the literature by which SI reveals a strong potential to lead change in system(s), but it only creates transformation when it scales-up or out, and when it has durability and transformative impact. Moreover, we hope to stimulate thinking and discussion in the scientific community as well as bring “something new to the table” through the distinction between two ways of using SI in the literature.

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