On the theory of social innovations: Tarde's neglected contribution to the development of a sociological innovation theory

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Preface to the English edition

Social innovations are becoming increasingly significant around the world, and not only in practical respects. Efforts towards a theoretical classification and grounding of the concept are also gaining momentum. This can be seen from a series of major academic conferences such as the Challenge Social Innovation conference in September 2011 in Vienna, the Social Frontiers conference in November 2013 in London, the fourth international CRISES conference in Montreal in April 2014, and the large-scale international research projects SI DRIVE and Transit which are funded under the EU's Seventh Framework Programme. In this light, we are pleased to be able to bring you an English version of our book on the theory of social innovations, which was published in German in 2014, as a contribution to current and future international discourse.

Dortmund and Cologne, February 2015

Jürgen Howaldt, Ralf Kopp and Michael Schwarz

Links

http://www.socialinnovation2011.eu/

http://www.nesta.org.uk/event/social-frontiers

http://ccednet-rcdec.ca/en/node/12144

http://www.si-drive.eu/

http://www.transitsocialinnovation.eu/

Preliminary note

The concept of social innovation is being adopted in all kinds of policy areas (e.g. welfare policy, innovation policy, research policy, labour policy, social policy) and levels (e.g. local affairs, regional government, European politics), in connection with various different intentions, ideas, and concepts. In the context of the social and cultural sciences too, it is a long time since the term was simply dismissed as being an empty buzzword. Now, in a variety of discourse arenas, it enjoys productive theoretical conceptual usage and contributes to a better understanding of a currently emerging innovation paradigm (social, reflective, distributed).

Against a background of a large number of usually application-oriented research projects aimed at changing social practice (e.g. in the fields of organisational and network research, service research, sustainability research), back in 2007 at Sozialforschungsstelle Dortmund, in connection with various activities, we began to develop a stronger theoretical basis and more precise positioning in terms of research strategy for the term 'social innovation', which was scientifically largely marginalised and often used arbitrarily in social and political practice, as well as having a strongly normative connotation. Not only was the subject area developed internally in the institute, in a working group that spanned different research areas and projects, but also interested external colleagues in various disciplines were included in this theoretical and research-concept innovation process at an early stage. (An overview of the key publications resulting from this process is provided in the appendix). In addition to own contributions concerning the analytical and practical relevance of social innovations in relevant sociological fields of discourse, and events for the scientific community in Germany dealing with the subjects of sustainability, innovation, social economy, cohesion and diversity, the social function of social research, transformation and change processes, at the same time, in publications and lectures, important stimulus was generated for the conceptual foundation of the international discussion. The 'Challenge Social Innovation' conference in 2011, which was co-initiated by Sozialforschungsstelle Dortmund, and the programmatic 'Vienna Declaration' which was issued in this context, concerning the most important topics for research on social innovation, reached a wide audience and greatly supported the establishment and expansion of an international network of experts in the research and practical field. Thus in

July 2012 the inaugural meeting of the European School of Social Innovation was held in Vienna, Austria.[1]

Increasingly intense study of the subject revealed conceptual weaknesses which in turn demand a deeper (continued) social-theoretical foundation of social innovations as an independent innovation type within a microfoundation of the social realm. This paper attempts, for this purpose, to use the social-theoretical approach of Gabriel Tarde as a forceful scientific conception of active social life (cf. Toews 2013:401) to aid the analytical identification and classification of social innovations and development of a corresponding scientific perspective. With recourse to Gabriel Tarde's microsociological and practical sociological agenda, it can be shown that social innovations change social practice, thus becoming the actual drivers of social change. From the beginning of 2014, in three large-scale projects under the EU's Seventh Framework Programme, we will have the opportunity to link the theoretical conceptual foundation, which is here put up for discussion, of social innovations as a 'driving force of social change', with empirical research on an international scale, to develop this foundation further, and integrate it into a "new, broad, society-wide research project on the topic of social innovations" (Horx 2013), with corresponding emphases.

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[1] Another international initiative relates to the theme of workplace innovation. This resulted, in May 2013, in a position paper supported by many European institutions (http://www.sfs-dortmund.de/v2/rubriken/aktuelles/) and the European network EUWIN (European Workplace Innovation Network). This network, with the goal of simultaneously achieving lasting improvements in the performance of organisations and the quality of jobs, was instituted at a major launch event in Brussels in April 2013 as an integral part of the European Commission's growth strategy (department / Directorate General Enterprise and Industry, ENTR).
http://ec.europa.eu/enterprise/policies/innovation/policy/workplace-innovation/

We owe a special debt of thanks to the Hans Böckler Foundation, without whose unbureaucratic and rapid promise to make a contribution towards printing costs, this book would not have seen the light of day.

Dortmund and Cologne, January 2014
Jürgen Howaldt, Ralf Kopp and Michael Schwarz

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Chapter 1
Introduction

"Social innovation is a term that almost everybody likes, but nobody is quite sure of what it means"
(Pol/Ville 2009).

In social practice and related discourse on the future, in view of the great social challenges (climate change, unemployment, inclusion, etc.), there is a clearly identifiable trend of increasingly focusing on social innovations.[2] Although related questions about the structures and processes of socialisation, social action, the social order and social change, as well as the possibilities and conditions for change, modernisation and transformation have been fundamental problems for sociology since its establishment as an independent science, so far both among the classical exponents of sociology and in current approaches, there has not been any consideration of this term based on a sociological theoretical foundation.

> "As before, rather than being used as a specifically defined specialist term with its own definable area of study, social innovation is used more as a kind of descriptive metaphor in the context of phenomena of social change and the modernisation of society" (Howaldt/Schwarz 2010:49).

As current studies also demonstrate, there is still no theoretically grounded concept that is suitable for empirical research. The result of this is "an incoherent body of knowledge on social innovation with the consequence that there is a lack of clarity of the concept of social innovation" (Rüede/Lurtz 2012:2).

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[2] Concerning the intense international debate cf. e.g. Rüede/Lurtz 2012 and Franz/Hochgerner/Howaldt 2012; concerning the paradigm shift in sociological analysis of the times (*Zeitdiagnostik*), cf. as examples among many: All "global public risks" are "part of a technological development" (Beck 2013). "Not technological innovations but social innovations will shape the future" (Zukunftsinstitut GmbH 2013). Social innovations are "solutions for a sustainable future" (Osburg/Schmidpeter 2013).

In light of the above, this paper attempts to use Gabriel Tarde's social theory[3] for a theoretically grounded concept of social innovation and reinterpret it in terms of sociological practice theory. The current rediscovery of this long-forgotten theory (see section 2.1) offering a "new, for a long time only minority-interest sociology" (Borch/Stäheli 2009b:7) "runs as a mirror-image reversal of the holistic mainstream of the Durkheim tradition in favour of a microfounded methodology" (Gilgenmann 2010:1). For Tarde, social macrophenomena such as social structures, systems and social change are "easy to describe, but hard to explain, because the true complexity resides in the microphenomena" (ibid. 2). His basic idea is to explain social change "from the bottom up", and not objectivistically, like Durkheim, "from the top down", in terms of social facts and structures (cf. ibid. 7). Accordingly, the aim is to explore Tarde's contribution to the microfoundation of a sociology of innovation and use it to develop a concept of social innovation as a social mechanism of change residing at the micro and meso level (cf. Mayntz 2004:241). Recourse to Tarde helps to "differentially sharpen" the term innovation beyond any "limitation to purely economic or even business management aspects" (Adolf 2012:27).

For Tarde, invention and imitation are the two key elements in a sociologically grounded concept of innovation. Inventions constitute the material and motor of social change. Through diverse forms of imitation, they are integrated into social practice as "the central motor of social learning" (ibid.) An invention, through imitation, becomes an innovation, and only then a social fact. Thus invention and imitation are the key elements in cultural cumulative evolution, which is specific to human societies (cf. Tomasello 2002). This mechanism makes it possible to "store" existing knowledge in a specific form and pass it on. Here the central knowledge repositories are firstly the various artefacts that humans have developed in their social practice, but also the social practices themselves. Linking in with the 'practice turn' in the international field of social theories (cf. Schatzki/Knorr-Cetina/Savigny 2001), we describe social innovations in an analytical concept that is not intended to be normative, as an intentional reconfiguration of social practices. On the empirical level of the actors involved, this does not exclude normative orientations or ideas about what is socially desirable or the "proper way of dealing with the world" (Welzer/Rammler 2013; see section 3.2).

Against the one-sidedness of current innovation research (and especially innovation policy) in favour of technological innovations, it should be stressed that the wealth (and the particular nature) of modern societies cannot be described solely by the existence of the greatest possible diversity of artefacts and technologies. Rather, 'material' wealth is an element and expression of a far more extensive wealth of social practices,

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[3]   Concerning the core elements and basic concepts of Tarde's approach, see in particular the remarks in sections 3.1, 3.2 and 5.3 below.

which humans have developed over the course of their history, and which shape modern society. Here the development and diffusion of technological artefacts is embedded in a dense network of imitation streams, which mutually flow through, hold back and drive forward one another. A sociological innovation theory should examine the many and varied imitation streams, and decode their logics and laws. From this perspective, the focus is always on social practice, since it is only via social practice that the diverse inventions make their way into society and thus become the object of acts of imitation. This also presents the opportunity at the same time not to make the all-encompassing and largely unconsidered innovation euphoria clandestinely also the hub and centre of innovation theory. Instead, the question of substantial originality and the origination of the new is systematically linked to the normal case of imitation, which always at the same time also means variation. Thus it becomes possible "to seek the origins of the new in the existing" (Adolf 2012:36) and to find the existing in the new.

A sociological theory of innovation, so understood, is a central component of a theory of social change, in which the wide variety of everyday inventions on the micro level constitute stimuli and incentives for reflecting on and possibly changing social practices. It is only when these stimuli are absorbed, thereby leading to changes in existing social practices, which spread through society via acts of imitation and thus construct social cohesion, that they drive social transformation.

As a first step, we look at the current state of discussion on the topic of 'social innovation', and describe the desiderata and perspectives of a theoretical foundation, focusing on the relationship between social innovations and social change (chapter 2). Through recourse to the social theory of Gabriel Tarde, the potentials of a sociology of innovation for the analysis of social change become visible. Starting from Tarde's social theory, we attempt to use his approach to develop a theoretically grounded concept of social innovations, and to reinterpret his approach in terms of practice theory. From this foundation, it becomes possible to redescribe the relationship between technological and social innovations, and hence move closer to achieving an integrated theory of social-technological innovation (see chapter 3). Following on from this, we will take a look at the relationship between social innovation and the transformation of society. Here we will elucidate the explanatory power of the concept of social innovation with regard to a non-deterministic understanding of social change, and draw conclusions both for transformation research and for innovation policy (see chapter 4). At the same time, this changes our perspective on the processes which are usually described as diffusion of innovation. With an examination of Rogers' diffusion theory, and linking back to Tarde's concept of imitation, we will show how the new comes into the world as social practice (see chapter 5).

Chapter 2
Social innovation and social change

Desiderata and perspectives of a theoretical foundation

2.1   Social innovation – a marginalised topic in social theory

Theories of social change have been at the core of sociology since its beginnings (cf. Meulemann 2013).

> "Up to the present time, various theoretical traditions of social change have remained influential; there is no unified and paradigmatic theory. In particular, theory has difficulties with social change that is not continuous and linear. Thus we do not know in what ways and under which conditions social systems respond to fundamental continuity breaks, whether with disintegration, innovation, or the restoration of the former state" (Weymann 1998:17).

Insofar as sociological theories deal with processes of change, they do so mostly from the perspective of the reproduction, but not the transformation of social order. Social change in the sense of fundamental transformations at macro level, which sweep over us as mega-trends, or as a sequence of phases separated by (epochal) upheavals, belongs to the field of sociological "diagnosis of the times" (*Zeitdiagnostik*), which can manage completely without social theory and at the same time is often mistaken for it (cf. Osrecki 2011).[4] New technologies, mentalities, forms of economic activity or dominance relationships – whether looked at retrospectively or prospectively – form the basis for unifactorial and hence stylising lag theories of change, and corresponding discourse strategies.

Whereas – based mainly on Ogburn's theory of social change – a specialised sociology of change has developed (cf. Schäfers 2002), with few exceptions 'social innovation' as an analytical category is merely a secondary topic both for the classical exponents and in current social

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[4]   Following the example of the analyses of the times by Beck, Riesman, Bell, Postman, Sennett.

theory approaches and concepts of social differentiation and social integration, social order and social development, modernisation and transformation. Apart from a few exceptions (cf. in particular Mulgan 2012; Harrison 2012; Hochgerner 2009), the social sciences seem practically to refuse to "present and list as social innovations the relevant social changes" which they have discovered and studied (Rammert 2010:26). This is all the more astonishing given that Ogburn not only makes 'cultural lag' – the difference in the times it takes for "the comparatively 'slow' non-material culture" to catch up with "the faster-developing material culture" (Braun-Thürmann 2005:19) – his starting point and systematically differentiates between technological and social innovations (and inventions) as critical factors in social change, he also emphasises that use of the term 'inventions' is not restricted to technological inventions but also includes social inventions such as the League of Nations:

> "Invention is defined as a combination of existing and known elements of culture, material and/or non-material, or a modification of one to form a new one. [...] By inventions we do not mean only the basic or important inventions, but the minor ones and the improvements. Inventions, then, are the evidence on which we base our observations of social evolution" (Ogburn 1969:56 f.; the above passage has been translated back from German into English – authors' note).

Thus Ogburn is convinced that in the interplay of invention, accumulation, exchange and adaptation, he has discovered the basic elements of "cultural development" (ibid.) and hence – like Darwin for biological evolution – has developed a model to explain social evolution.

2.2 The relationship between social and technological innovations

The debate therefore mainly centres on the question of whether social innovations are a prerequisite for or concomitant phenomenon with technological innovations, or whether they follow them. Here Ogburn becomes the chief exponent of a technological interpretation of social change. Starting from his distinction between "material" and "non-material elements of culture" (ibid. 57) and emphasis of the "interrelationships" (ibid. 65) between them, he at first assigns to "innovations in the non-material field" the character of "secondary changes" in the sense of an "adaptation to a change in the material field" (ibid.), which as an "invention in the field of technology or a discovery in applied science" have an extraordinarily large coefficient of effect and therefore result "with great likelihood in changes in other cultural fields" or even in the "formation of completely new social institutions" (ibid. 67; the above quotations from

Ogburn have been translated back from German into English – authors' note). In this original interpretation, social change is understood as a process of diffusion of innovations and hence as the imitation or adoption of a (technological or social) invention by others (cf. Meulemann 2013:398 ff.) or as an emergent innovation process, where social innovations are primarily ascribed the function of a (delayed) adaptation in the sense of a "cultural lag" (Ogburn 1969:64).

At the same time, it is overlooked that in his later work, Ogburn referred to an important misunderstanding of his concept. In an essay published in 1957, he writes:

"In most of the examples I gave at that time, the starting point was a technological change or a scientific discovery, and the lagging, adaptive cultural element generally was a social organisation or an ideology. These examples led some researchers to think the cultural lag theory was a technological interpretation of history. Yet when the cultural lag theory was published, I pointed out that the independent variable could just as well be an ideology or other non-technological variable. [...] So the fact that the technological changes always came first was simply due to the fact that at a particular point in time, only certain observations were available; but it is not an inherent part of the theory" (Ogburn 1969:139).[5]

Yet precisely these aspects of Ogburn's conception, which could have formed the basis for a comprehensive theory of innovation, remained largely ignored in a setting in which there was a one-sided focus on the sociology of technology.

In a socio-technological perspective (cf. Bijker/Hughes/Pinch 1987), an indissoluble link between technological and social innovations is seen "in every case": "the two mutually require each other, and neither is reducible to the other" (Rohracher 1999:176). In consequence, this amounts to the discovery that the development and application of technology are always socially embedded, that technology and technological innovation are an "inherently social phenomenon" and hence an integral part of "social strategies and conflicts of interests" (ibid. 177). With the realisation that

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[5] Duncan also highlights this clarification in his introduction to Ogburn's works: "It is wrong to characterise Ogburn's theory of social change as a 'cultural lag theory'. He did not regard the cultural lag theory as a 'fundamental element of the theory of social evolution'" (Duncan 1969: 21). He goes on to state: "Ogburn makes it quite clear that one should in no way assume that all lags are initiated by technological inventions, to which social forms must subsequently sooner or later adapt. This statement results only from a generalisation of empirical findings for a particular historical period, and even for this period it is not said to be valid without exception" (ibid. 22).

"technology is a social process" (Weingart 1989), it is true that the sociology of technology has developed an awareness of the problem regarding the significance of social innovations for shaping technology and also for managing the consequences of technology. Accordingly, via "new social initiatives and practices", such as greater involvement and participation of affected persons and users, it is possible to carry out an "active" and "more sustainable shaping of technology", and "technological innovations can be suggested and steered in a particular direction" (Rohracher 1999:181). But aside from the question of the social practice of shaping technology and managing its consequences, the relationship between technological and social innovations is still conceived of asymmetrically: the focus lies on technology (cf. Rammert 1997).

Brooks is the first to dissolve the technological focus and emphasise the independence of social innovations. He describes the relationship between technological and social innovations using the example of management innovation: "The organisational invention comes first, and technical innovations are gradually introduced to improve it, rather than the reverse" (Brooks 1982:10). To the dichotomy of technical and social innovations, furthermore, he adds socio-technical innovations, and among social innovations he identifies the subtypes of market innovations, management innovations, political innovations and institutional innovations.

As "society itself becomes a locus of innovation" (Howaldt/Kopp/Schwarz 2008:64), there is an accompanying increase in the experimental processes which take place not only in the separate world of scientific laboratories, but also in society (cf. Krohn 2005). New actors, new forms of combination of knowledge generation and application, of social learning, of intermediary arrangements and multi-level governance structures, of experimental, participatory politics and shaping the future become central to innovation activity. Accordingly, an understanding of the innovation process has formed, and found its way into innovation policy and the practice of innovation management, in which openness towards society is key (FORA 2010:15 ff.) Individual aspects of this development are reflected in terms and concepts such as open innovation, customer and user integration, (innovation) networks, multi-stakeholder dialogues and "the new power of the citizenry" (Marg et al. 2013). The development of correspondingly "robust design concepts" (Groß/Hoffmann-Riem/Krohn 2005) and institutions that combine research and innovation with "post-conventional forms of participation" (Marg et al. 2013:8) are explicitly the subject matter of, for example, transition management, transdisciplinary sustainability research, governance research and particularly also network research (cf. section 4.2). This requires social innovations, understood as an independent innovation type, which in its subjective and objective, chronological and spatial relationalities is distinguishable from technological innovations (cf. Adolf 2012:28), with its own subject area, area of influence, and area of applicability.

However, it is not possible to define social innovations – as Rammert (2010) proposes – solely by their relationship to a social reference system. Rather, what is at issue is the substantive core of the innovation object. With social innovations, the new does not manifest itself in the medium of technological artefacts, but at the level of social practices. If it is accepted that the invention and diffusion of the steam engine, the computer or the smartphone should be regarded differently from the invention and social spread of a national system of healthcare provision, the concept of corporate social responsibility (CSR) or a system of microlending, then it stands to reason that there is an intrinsic difference between technological and social innovations. While it is true that all innovations, regardless of their object, can be viewed as a social phenomenon, at the same time this is a sociological platitude which does not obviate the need to empirically research the commonalities and differences between these two types of innovation. Even if, in reality, both types closely connect with each other in socio-technological systems, the need for an analytical distinction does not disappear. This is all the more urgent given that existing sociological innovation research, which has emanated mainly from the sociology of technology, centres on the investigation of technological innovations: "If one asks what are the relevant innovations of the last 100 years or if one reads lists of the most important innovations, the answer usually is a series of technological inventions" (Rammert 2010:25).[6]

While the adoption of technological innovations always requires and/or entails social innovations, social innovations can be generated, implemented and analysed without reference to technology. Only by taking into account the inherent laws and specific characteristics of social innovations does it become possible to explain social and technological innovation processes in their systematic context and in their mutual dependency.

2.3   The context-dependency of the discussion of social change

Scientific interest in social change, and the importance of technical and social innovations, are dependent to a high degree on the respective socio-economic context.

> "In situations where the social is more clearly articulated and formulated, i.e. in political struggles and with the emergence of social

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6   For many years, this one-sided technology orientation has found expression in an innovation policy that concentrates on supporting leading-edge technologies. The many reasons for this trend are founded for example in the various models of economic growth theory (cf. Hirsch-Kreinsen 2010).

movements, interpretations of social change which emphasise the strategic pliability and social movability of existing social orders may gain currency" (Evers/Nowotny 1987:316).

While the post-war years in the Western world were characterised by economic growth and an almost unwavering belief in scientific and technological progress (cf. Lutz 1989), in the 1960s the first cracks appeared in the supposedly permanent social sustainability of this growth model. With the outbreak of social conflicts, the inadequacies of a technology-centred understanding of social change become increasingly clear.

Against such a background, in the 1970s an interdisciplinary research group connected to the Fritz Thyssen Foundation turned against the one-sided technological thinking of innovation research, and focused in a number of studies on non-technological ideas and problems, and their impacts on social change in the 19th century (cf. Neuloh 1977a). Social innovations are understood here "as the introduction of new social and social-policy ideas and institutions" (Neuloh 1977b:8), which can be both the outcome and cause of social conflicts, and can also be significant for their resolution and institutionalisation (cf. Neuloh 1977c:9).[7] They become the cause of social conflicts particularly when "they need to be implemented under difficulties in the wake of or in competition with technological innovations" (ibid. 17). As the editor points out, compared to established innovation research this is a "fundamentally different field of action, for the analysis of which, however, the preceding conceptual and theoretical clarifications [...] serve as a basis" (Neuloh 1977b:8). To guide the analysis, system-oriented, behaviour-oriented, personality-oriented and communication-oriented terms and concepts of social innovation are brought in:

• The system-orientated perspective focuses on social innovations as "challenges to the basic rules of a system" (Etzioni 1969:159). If values, norms, or patterns of behaviour are called into question, changed or eliminated by social innovations, then this means a challenge inasmuch as it is linked to social conflicts.
• The behaviour-oriented perspective focuses on individual, collective or marginal behaviour which deviates from traditions, values or norms, and the social processes triggered as a result in the direction of an "irreversible, structural change in social interactions" (Fürstenberg 1972:17).

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[7] In addition to his own definitions, in this connection the "large number of definitions and attempts to define the term social innovation" (Scheweling 1977:169) which existed even at that time are referred to.

- The personality-oriented perspective transfers Schumpeter's figure of the outstanding innovator (entrepreneurial personality) to the social and social-policy field, and refers to the ideas and initiatives of 'great' social policy-makers and reformers.

- The communication-oriented perspective relates both to the level of the persons involved in the innovation itself, and – primarily – to the level of diffusion. This is fundamentally different in the case of social innovations as compared to technological innovations, inasmuch as the process of communicative diffusion of ideas precedes that of the innovation, and is therefore "society-dependent" and to some extent a "maturation process" (Neuloh 1977c:22 f.), in which the original idea is not only imitated during its implementation but also modified, expanded and made more concrete. In contrast, the diffusion of new technologies and products does not begin until they appear on and are distributed via the market. Only as a result of this do they become an innovation. All innovations are "forced to prove their relevance" (ibid. 25). In the case of social innovations, unlike technological innovations, this consists in their "historical relevance", i.e. in their "significance for the creation of institutions and the resolution of social conflicts" (ibid.) and with regard to "structural changes within the social and economic order" (ibid.) Beyond their "social-structural relevance" (ibid. 26), social innovations are also characterised by their "socio-cultural relevance" in the sense of a "reshaping of cultural sub-systems, such as the education system" (ibid.)

In this debate, interest focused on the relationship between social innovations, social conflict and social change. It was conceived of as a circular relationship, which can start either with social innovation or with social conflict, and in both cases leads to social change. From the researchers' point of view, in this light it was clear that theories of social change are centrally important to a theoretical grounding of social innovation (cf. ibid. 28 f.) 'Successful' here, they realised, was not the same as 'socially desirable' or 'good'. Just like social conflict, social innovations too are always at the same time functional and dysfunctional. For even or particularly if social innovations address social conflicts, problems or issues 'positively', in the sense of benefiting system stability, that is, responding to social damage with repair work,[8] then on the other hand – at least from a conflict-theory perspective – this is always accompanied by encroachments on interests and by processes of 'disorganisation' and 'dislocation', as well as the mobilisation of resistance against the change, against interference with habitual ways of life, traditions and rights (cf. Eisenstadt 1966:20 and

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[8] And "modern society urgently requires a number of repairs. Repair, however, is a fairly complicated matter" (Sennett 2012:267 f.) On Sennett's concept of "repair", see also section 3.5.

Volkmann 1977:43 and 65). Seen this way, social innovations can also be described as "ambivalent processes of social change" (Paech 2005), in which "the deciding factor is not so much the new idea as the conflict of interests among the persons involved" (Mensch/Schroeder-Hohenwarth 1977:129).

Even Tarde, under the concept of conflict, pointed out that a social invention, like a decision, is always just one of thousands of possible responses to a question, from which new questions and new answers arise in turn, and therefore is also always confronted with "struggles, great or small, between the advocates of various solutions" (Tarde 1899:196) or with a turbulent cloud of interests and a correspondingly manifested micro-politics as an integral part of the diffusion process. The conflict – understood as the inescapable opposition between opinions and strivings, the ever-present tension between the for and the against in respect of an idea and a desire (cf. Tarde 2009a:48) – and the resulting inner (individual) and social struggles, have here in the true sense of the word a mediating function between the imitation and the invention. The only benefit of this conflict "consists in its generating a tension of opposing forces which is apt to bring inventions into being" (ibid. 69).

Back in 1977, Mensch and Schroeder-Hohenwarth made a rudimentary proposal for a theoretically grounded study of social innovations "which drive social change" (Mensch/Schroeder-Hohenwarth 1977:128). They suggest that the study should proceed both from a structuralist perspective on the initiators of social change and their intentions, and from a functionalist perspective on the sequences of actions, and at the same time connect together an evolution-theory approach geared to the adoption dynamics and development of an innovation, with a diffusion-theory socio-psychological approach geared to the innovation capacity and willingness to adapt. According to this basic concept, social change is based on striving for a balance that can never be attained. The greater the imbalance, i.e. dissonance and conflict, the greater is "the pressure seeking equilibrium, whose force produces social innovations" (ibid. 132).

The occurrence and spread of social innovations are explained based on a process model of social change. Accordingly, social innovations, even if with certain limitations, can in the first instance be traced back to the respective material basis of social life, determined by the economic-technological dynamics. "Very particular types of social innovations" (ibid. 133) form with the respective phases of long-term development: in the recovery phase, social innovations to deal with the new socio-economic conditions become necessary and possible. In the prosperity phase, social innovations pushing in from the margins are blocked. In the affluent society, there is a focus on structure-preserving, compensatory social innovations. And as negative consequences are perceived, the "structural willingness for sharply deviant innovations" (ibid.) increases. In addition to these exogenous components, at the same time endogenous socio-psychological components such as perception, expectation, creativity and

relationships also come into effect. The meshing together of these active components then determines the dynamics of social innovation and its significance in the process of social change. Even if this bias towards individual and social psychology in combination with a structural-functional bias hints at and proclaims more than it provides a sociological foundation for, the authors have here presented a proposal for a heuristic method of analysing the development process of social innovations, whose further differentiation and foundation – astonishingly – never happened.[9]

So it was that the concept of social innovation was not taken up again in the German-speaking world until 1989, by Wolfgang Zapf. In the context of his modernisation theory approach, Zapf explicitly makes the connection between social change and processes of imitation. He believes that social innovations are "new ways of achieving goals, especially new forms of organisation, new regulations, new lifestyles, which change the direction of social transformation, solve problems better than earlier practices, and which are therefore worth imitating and institutionalising" (Zapf 1989:177). At the same time, the term's normative orientation, which we have criticised elsewhere, stems from his modernisation theory perspective (cf. Howaldt/Schwarz 2010:62). In her conceptual hierarchy of 'innovation – reform – social change / modernisation of society', Gillwald (2000:6), following Zapf, describes (political) reforms as a subset of social innovations and these, in turn, as a subset of processes of social change or of the modernisation of society, and therefore "as a suitable means [...] of meeting social challenges, namely through material, time-based and social sharing of (social) problems so that they lose their overwhelming dimension (Zapf 1997:39)" (ibid. 8).

Thus, for Zapf and Gillwald too, social innovations are not identical with social change. Yet the relationship between the two phenomena is only insufficiently explained. The essential difference emphasised in other concepts of social innovation is that unlike in the case of social change, understood as the "processual change in the social structure of a society in its constitutive institutions, cultural patterns, associated social actions and contents of consciousness" (Zapf 2003:427) or as the totality of a society's change processes (Schäfers 1990), social innovations are the result of intentional and targeted action to establish new social practices (Howaldt/Schwarz 2010:64). However, the systematic relationship between social change and social innovations still requires clarification – especially from the perspective of a definition of social innovation that is grounded in social theory on the one hand, and the ability to shape change on the other.

There still remains a large theoretical gap in the explanation of social change through relational structures at the micro level, through relationships between people (cf. Meulemann 2013:427 and 286), and

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9   For Gerhard Mensch, in the context of his innovation research, this was probably more of an off-the-cuff thematic excursion.

through the change dynamics of parts, or in other words through changing social practices, "which are microcosms of social change" (Osrecki, 2011:189). This is about the "Practical Arts" (Pankoke/Quenzel 2006) of translating cultural meaning into social form, of shaping private and public life (ibid. 81), and about critically questioning long-established social design, innovatively moulding it and setting it in motion over and over again (ibid. 82). It is "about the improved capacity to act – to participate in social practices which enable a richer and more fulfilled human life" (Rorty 2008:191) as well as becoming aware and making use of new design opportunities so as to initiate 'bottom-up' social innovation processes (Adolf 2012:39 f.) This creates new configurations of the link between capital and labour, public and private welfare, theory and practice, work and life, culture and business, along with new practices and strategies of management and self-management, networks and social learning processes, which are a promising initial step towards the construction, communication and transformation of social ideas into new social practices.

Looked at this way, the increased interest in social innovation as a mechanism of change residing at the micro and meso level becomes more significant (cf. e.g. Howaldt/Schwarz 2010; Howaldt/Jacobsen 2010; Rammert 2010; Beck/Kropp 2012, Parpan-Blaser 2011; Franz/Hochgerner/Howaldt 2012; Osburg/Schmidpeter 2013; Rückert-John 2013a; Cajaiba-Santana 2013). The reasons for this are obvious. Firstly, the shortcomings of older models of social change and of an economically and technologically focused innovation model become increasingly apparent when dealing with the key social challenges. Secondly, new forms of social self-management (Pankoke/Nokielski/Beine 1975), of the "criticism that actually takes place in society" (Vobruba 2013:160), of protest movements that aim to shape society (Marg et al. 2013) and new social practices in social life and related governance – understood as necessary social innovations (cf. Heidenreich 1997) – are evidently becoming increasingly established.

Particularly in the context of the broad debate in society concerning sustainable development and necessary social transformation processes (cf. WBGU 2011), the question of the relationship between social innovations and social change arises again (cf. Rückert-John 2013a; Schwarz/Birke/Beerheide 2010; Schwarz/Howaldt 2013): How can processes of social change be initiated which go beyond the illusion of centralist management concepts to link social innovations from the mainstream of society with the great social transformation processes? We go into this in greater detail in chapter 4.

2.4   Perspectives of a theoretical foundation

Thus it remains the case that what exactly is meant by the idea of social innovations as an "emerging concept" (Rüede/Lurtz 2012) or as an "emerging paradigm" (cf. Osburg/Schmidpeter 2013), how they should be categorised conceptually, theoretically and practically, and above all, whether their scientific study is analytically productive in terms of an independent innovation type that can be clearly distinguished from technological and other innovations particularly with regard to transformative social change, are still largely unanswered and at the same controversial questions (cf. also Wehling 2013 and Rückert-John 2013a).

Arguments here range, on the one hand, from a sociological totalisation and at the same time levelling of the attribute 'social', because (it is claimed) innovation is generally a social phenomenon and expression and element of social change (Braun-Thürmann/John 2010:68), to an explication of the specific features of social and other innovations by society via their respectively different references in terms of social sub-systems such as the economy, politics, art etc. (Rammert 2010), to the outlines of an integrative theory of social innovation, which by considering the inherent laws and specific characteristics of social innovations as social practices opens up the possibility of explaining social and technological innovation processes in their systematic context and in their mutual dependency (Howaldt/Schwarz 2010:115; Meulemann 2013:412 ff.; on this point see also section 2.2).

Developing a theoretically grounded concept of social innovation as a specific mechanism of change is an essential condition for overcoming previous and existing limitations and one-sided focusings oriented towards technological innovations, and moving a step closer to meeting the requirements of an integrative theory of social-technological innovation. In this understanding, social innovation is more than just a precondition for, concomitant phenomenon with, and consequence of technological innovations. We regard such a broadening of perspective as being a precondition for leading the topic of innovation out of its past and current marginal position as the object of a specific sub-discipline, to the centre of sociological research and theory work (cf. Rammert 2010).

Since Schumpeter, innovation has essentially been reserved for economic and technological development, while sociology has mainly been interested in the associated social processes and social consequences. This might explain why it is that although sociology deals extensively with social innovations, it usually does so without naming them as such, and with few exceptions does without a sociological concept of social innovations, preferring other concepts instead. This is remarkable insofar as Schumpeter's theory of economic development is heavily inspired by Gabriel Tarde's micro-sociological social theory, which for its part, despite a current astonishingly wide rediscovery, has so far not been intellectually

absorbed from the point of view of the constitutive importance – for Schumpeter's theory – of social innovations.

Aside from the importance that the term "social innovation" is currently gaining as a model for a new (innovation) policy, its analytical and diagnostic potential to explain social change in terms of a microfoundation of the social realm has been largely underestimated until now. In a "world of complex human practices", even "the smallest and apparently most insignificant interventions lead to far-reaching changes in our behaviour" (Probst 2013:55). If society holds together because and as long as "social events follow from social events" (Baecker 2007:149), then recourse to the only belatedly rediscovered event-oriented social theory of Gabriel Tarde suggests itself[10], which to a certain extent is an inventive sociology of the becoming of diversity and cohesion, and an analytical programme which, with regard to social phenomena, facts and conditions, social order, structures and social change, makes social innovations its starting point as well as the theoretical and empirical focus of a "truly experimental science" (Tarde 1899:198). "Socially, everything is either invention or imitation" (Tarde 1903:3). Following on from Tarde and the sociological practice theories, in the microfounded concept of social innovation, according to which social change emanates from initially usually marginal ideas[11], initiatives or inventions, which gradually concretise and communalise until the establishment and institutionalisation of new social practices, we see a sociology-inspired trail which we wish to pick up and pursue further with regard to analysing the relationship between social innovations and transformative social change.

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[10] Partly as an attempt to answer the question "What holds society together?" (Baecker 2008:147 ff.), Baecker refers to Tarde and hence rather implicitly illustrates his importance for a social theory which is concerned with "identifying and describing the intrinsic values or to be precise the intrinsic dynamics of the recursively reproducing society" (ibid. 151). In analogy with Tarde's approach, he answers the above question like this: The "form of recursiveness [...] holds society together because everything which happens in society can, after all, be made the starting point of further social events" (ibid. 148 f.) Hence social cohesion is not understood normatively, but rather via "social and material meaning" which can be identified in a "follow-on event", "which takes society a step forwards beyond the moment" (ibid. 149).

[11] Developments of this kind are often initiated by social movements. Thus Haunss/Ullrich (2013) have asserted that social change cannot be understood without an analysis of social movements. "They are central actors who destabilise the existing order and drive and accelerate transformation processes, or who try to oppose them. This applies to macro-processes of social change, but also to many social conflict constellations made up of small parts, in which the outcome is not social transformation but rather a change in policy, norm, or attitude" (Haunss/Ullrich 2013:295).

Chapter 3
From Schumpeter's economic innovation theory to Tarde's sociological grounding of innovation research

The starting point for innovation research, and its centre of reference which is valid to this day, is the "theory of economic development" (Schumpeter 1964) which Schumpeter presented in 1912, and the definition of innovation which it introduces. According to this theory, economic development takes place as a permanent process of creative destruction. The driving forces of this dynamism, the reason and cause for fluctuations in economic activity, are innovations in the sense of the gaining of acceptance "of new combinations of means of production" (ibid. 100). Inventions become innovations if they become successfully established in the market (diffusion). The true function of enterprise is to introduce and implement innovations. Schumpeter does not focus only on technical innovations. He also distinguishes product and process innovations, as well as organizational innovations, the use of new resources and the opening up of new markets. Above all he thematises the process of innovation. He also underlines the need for accompanying social innovations in the field of business and also culture, politics and social life, to guarantee the economic effectiveness of technological innovations (cf. Moulaert et al. 2005).

As a rule, it is overlooked in innovation theory following on from Schumpeter that he was strongly influenced by Tarde's social theory. "The idea of dynamic development, so fully expressed by Bergson, the philosopher[12], and by Schumpeter, the economist, had first been crystallized by Gabriel Tarde, the French sociologist" (Taymans 1950:611; cf. also Michaelides/Theologou 2010). Seen this way, innovation research goes back to Tarde's social theory, which develops imitation and invention as key sociological concepts. Accordingly, Taymans in his work demonstrates continuous conceptual parallels between Tarde and Schumpeter. Taken as a whole, Schumpeter's theory of economic development and the key role played in it by innovation and the innovator

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[12] Bergson in his work "Die schöpferische Entwicklung" (Bergson 1907) expounds the idea of the "élan vital" – cf. also the idea of "vita activa" in Hannah Arendt (1967/2013) – and sees consciousness as the fundamental motive for development and as a synonym for invention and freedom.

can largely be described as an application that is specific to economics of Tarde's sociological approach.[13] Hence some of the insights ascribed to Schumpeter seem less than original (cf. Michaelides/Theologou 2009).

3.1 Gabriel Tarde – the overlooked classic exponent of a sociology of innovation

Tarde is one of the long-forgotten classic exponents and founding fathers of sociology, whose works have received little attention. A rediscovery of this approach has been in evidence for some time, which according to Katz (2006) – entirely in keeping with the context-dependency of analytical concepts of social change, as outlined in section 2.3 – is down to the fact that precisely those reasons which for a long time were decisive in his being ignored, appear today in an entirely different light, and in the context of the 'practice turn' in the international field of social theories (cf. Schatzki et al. 2001) militate in favour of an in-depth study of his social theory. As Welz (2012) recently argued with regard to sociology's changeable treatment of its classic authors, they should be read as pioneers of current perspectives, so as to emphasise the "powers of cognition" instead of the "collecting memory" (ibid. 171). Standard-bearers and forerunners thus become "pioneers of holistic perspectives", of "ways of thinking" (ibid. 174), which can teach "intellectual arrangements of the elements of the social realm" (ibid. 172), "provided their embeddedness in the historical context is not forgotten, but rather always considered anew, and their contribution to theory always historically re-contextualised" (ibid.) Then forgotten classic authors can have something like a "Rip Van Winkle" function.[14] Thus they make it possible to ask what we know different or better today (cf. Katz 2006:8). Viewed in this light, classic texts are not only relevant if and insofar as they generate consensus, but rather because and if it is worth examining them with regard to current developments. Specifically the rediscovery of Tarde, Katz believes, can underpin contemporary research on political communication, the diffusion of innovations, social networks, public opinion, collective behaviour and domination-free discourse.

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[13] Traces left by Tarde in innovation research can be found not only in Schumpeter. Rogers also cites Tarde in the development of the theory of diffusion, and Latour almost euphorically describes the significance of Tarde as a "forefather" of "actor-network theory" (cf. Latour 2009:39).

[14] In the short story by Washington Irving, published in 1819, a villager named Rip Van Winkle drinks a magic potion that sends him into a deep sleep for twenty years. He awakes with his old views in a completely changed world, without any awareness of the changes that have occurred in the intervening period.

Arno Bammé (2009) confirms, in his research into the reasons for the "sudden topicality of a hundred-year-old theory", not only that Tarde should be counted among the long-forgotten founding fathers of sociology, and that he developed the "essential features of another sociology", but also that high-profile attention for example from Deleuze, Sloterdijk and the biologist Dawkins, and above all from Latour in his reassembling the social, has a "considerable part in the international rediscovery" of his work (ibid. 113). Bammé takes and illustrates the position that the sudden topicality of and in some cases euphoric enthusiasm about Tarde is essentially because of certain affinities with the post-modern and post-traditionalist zeitgeist of current sociology and the principle of self-replication in biology and brain research, and he criticises the lack of discussion so far regarding the content of the approach (cf. ibid. 145 f.) This affinity, he believes, in view of the phenomenon of social pluralisation and differentiation and the corresponding concept of the "individualised society", has to do with the resulting substitution of one socialisation mode by another, "'post-traditional' mode of socialisation", in which "now the individual" is considered to be the "critical motor of the socialisation process" (ibid. 123). Interest therefore focuses not only on "the individual's greater scope of possibilities and his opportunities to influence and help shape socialisation processes" (Junge 2002:38 f.; quoted from Bammé 2009:124), but also on a paradigm shift in the discussion of social practice and "modes of knowledge production" (ibid. 125). Given the "shift from formal to informal structures", new "forms of 'sub-politics' as Beck puts it, or 'life politics' in the words of Giddens", and the appearance of new actors above and below the level of state policy (cf. ibid. 147 f.), Tarde's removal of any kind of dualisms and his imitation concept "suddenly" gain "attention and significance" as a 'post-modern' contribution to the understanding of the associated "'New Obscurity' (Habermas 1985)" (ibid. 147) with "more explanatory power" (ibid. 146).

Borch and Stäheli (2009b), with regard to Tarde's "amazing renaissance", equally notice not only his rediscovery "as a forgotten classic" but also his function "as a catalyst for new sociological thought", "that breaks radically with classic concepts of the social" (ibid. 7). By focusing in particular on the aspects of his social theory which can directly link in with contemporary discussion, they emphasise his pioneering role "as forerunner of a new, for a long time only minority-interest sociology, which is also important for our understanding of contemporary societies" (ibid.) Unlike Bammé, they see the current rediscovery correspondingly as owing less to the zeitgeist and more to the long-overlooked "theoretical innovation" (ibid. 10) of his sociological programme, in the sense of a fundamental alternative to both structural theory and action theory; alternative inasmuch as it assumes that the eventfulness and contingency of the social realm – and not the macro structures or constructs – are the decisive factors in the constitution of society, which are kept in motion by innovation (cf. Keller 2009:233). Thus Tarde's line of thought stands in

confrontation with those who uphold the idea of linear development and the supposed applicability of laws of development, or rather with the "imperialism of the social object" just as much as with "the imperialism of the subject" (Giddens 1995:52). Instead, here the whole is explained by the individual, although it should be taken into account that the "entities with which Tarde deals [...]" are "not people but innovations, quanta of change with a life of their own" (Latour 2010:35), social works and inventions which attempt to spread everywhere where there are people. With Tarde, society should not be understood in terms of mutual benefit, nor in terms of legal, structural conditions, but rather in terms of imitations which spread. Society is imitation, sociality is imitation activity. His general question is not, what are the social realities, the great social phenomena (cf. Tarde 1899:183) and social conditions (cf. Tarde 1899:199) but rather: how did they arise and how do they arise, what is the "law of their formation" (ibid.)? Thus this approach focuses on precisely that which the great strategies of the traditionalists and modernisers with their fixation on the great stories of technological progress or cultural hierarchies completely miss (cf. Krause/Rölli 2010:142), and makes an important contribution to the debate between micro and macro level in modern sociology.

So far, however, current studies of Tarde's work give priority to the attempt to reconstruct Tarde as a forerunner or intellectual contemporary (see above) with regard to other current themes he can be linked to. Such current themes he can be linked to (cf. also Katz 2006) are seen and highlighted for example in the field of post-structuralism, network theory and aesthetics, communication and opinion research, and particularly with regard to research into digital interactivity, the phenomenon of the mass and the public, diffusion research, urban sociology and linguistics (cf. Borch/Stäheli 2009b). By contrast, Tarde's social theory, which at core is a sociology of innovation, wherein precisely its real pioneering achievement consists, has not been systematically explored until now with regard to its implications and potentials for the analysis of innovation.

To the extent that the concept of innovation is opening up towards society, and the diversity of innovations in society (cf. Rammert 2010) is coming to light, with regard to the theoretical foundation and differentiation of social innovations, recourse to Tarde's theory of social development rather suggests itself. Recourse to Tarde allows the perspective which was narrowed by Schumpeter – and following him by the technology of sociology – to economically relevant technological innovations, to be widened to include the diversity of social innovations. At the same time, this reveals the blind spots of an economically narrow view. Because Tarde places the practices of imitation – and its laws – at the centre of his theory of social development, the associated microfoundation of social phenomena provides vital input into an integrative theory of innovation. It enables us to discover how social phenomena, conditions and constructs come into being

and transform. The key to this is to meticulously trace social inventions and innovations as well as the associated social practices of their imitation.

This character of Tarde's social theory, referring strongly to the social prerequisites for invention and imitation, is also underlined by the fact that unlike Schumpeter, for whom the innovator in the social figure of the entrepreneur is the focus of interest, for Tarde – as later also for Ogburn – it is inventions which are understood to be the central 'motor' of social development. For Tarde, these are the many small inventions and ideas "which were difficult or easy to arrive at and mostly went unnoticed at the time of their arising, which therefore are usually almost exclusively inglorious and nameless" (Tarde 2009b, 26).[15]

These countless and nameless inventions and discoveries change society and its practices through equally countless acts of imitation, and only as a result do they become a true social phenomenon. "Socially, everything is either invention or imitation. And invention bears the same relation to imitation as a mountain to a river." (ibid. 3). For Tarde, imitation is the central mechanism of social reproduction *and* of social change.

> "All resemblances of social origin in society are the direct or indirect fruit of the various forms of imitation, custom-imitation or fashion-imitation, sympathy-imitation or obedience-imitation, precept-imitation or education-imitation; naïve imitation, deliberate imitation, etc." (Tarde 1903:14).[16]

Since imitation always also involves variation, imitations simultaneously bring innovations into social structures and practices.[17] Added to this are

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[15] Thus Tarde explicitly turns against the enlightenment illusion of free will (cf. Tarde 1903:246) and emphasises every invention's social embeddedness in a dense network of innovation streams. "In acting according to these last-named motives, the modern man flatters himself that he is making a free choice of the propositions that are made to him, whereas, in reality, the one that he welcomes and follows is the one that meets his pre-existent wants and desires, wants and desires which are the outcome of his habits and customs, of his whole past of obedience" (ibid.) Elsewhere he states: So "[l]et us ward off this vague idealism. Let us likewise ward off the vapid individualism which consists in explaining social changes as the caprices of certain great men" (Tarde 1903:2).

[16] In a similar way, Tomasello sees in "innovation and imitation (possibly supplemented by tuition), which over time must become entwined into a dialectic process", the bases of the cumulative cultural evolution which characterises human development (Tomasello 2002:51 f.)

[17] Analogously to this, Eugen Ruge (2013) in his new novel "Cabo da Gata" refers to the inescapable tension between invention and remembering. The memory

individual initiatives and rebellions against prevailing morals, customs, rules, interruptions or crossings of imitation streams, which are transferred and imitated from person to person, leading to social innovations. While action refers back to existing structures, at the same time it needs to fill, add to, circumvent, avoid, modify or indeed replace them (cf. Ortmann 1997:27), that is, to constantly innovate. Tarde proceeds systematically "from the question of the production of the new", from the "infinitesimal dynamics", "on which basis *social inventions* [our emphasis] come about and which ultimately are the condition for them to become reality" (Alliez 2009:126 f.) "It is this pausing, this momentary break, which interrupts automatic imitation processes and in this way makes them disturbable" (Stäheli 2009:414). "Researching the 'many small inventions', according to Tarde, is a matter for a sociology which 'has become a truly experimental science'" (Balke 2009:151). "With the invention, something new is offered for imitation" (Antoine 2009:167). The invention, through imitation, becomes an innovation with the "consistency of a social fact" (ibid.)

Tarde's concept of imitation has received some strong criticism. Tönnies criticised the lack "of a more precise analysis of the concept of imitation, and of a strict definition of its content" (Tönnies 1929:188). Tarde is said to generalise the concept of imitation so much that it loses a certain amount of meaning, while his argumentation is circular (cf. Bammé 2009:136). Furthermore, it is said that he cannot consistently carry out his intention to portray imitation as the sole principle of society, but rather needs to add to it the opposite idea of invention, and hence talk of two "capital forces" (ibid. 135), where the former, an uninterruptedly effective force, is prominent, and the latter only applies intermittently and eruptively, which cannot be reconciled with the current age of mass and many revolutionary inventions on all fronts.

This argument, however, does not withstand a closer examination of the statements concerning the 'Social Laws', in which Tarde describes the 'inner connection' between his three main general sociological works. Here the systematic linking in terms of scientific theory of imitation, opposition and (always inventive) adaptation as the "three different keys which science employs to open up the arcana of the universe" (Tarde 1899:7) is expounded from precisely the angle "to show what sociology must be, if it is to deserve the name of science, and along what paths sociologists must guide its course, if they wish to see it assume, unchallenged, its proper rank" (ibid. 8). Accordingly, the relationship of the three keys to the social realm is ordered in such a way that "imitative repetition" (ibid. 61) is the great pass-key. Adaptation is a key of finer construction and "gives access to treasures deeply hidden and most precious" (ibid. 8). And opposition is an intermediary of lesser importance between the two, which "reveals

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does not simply remember something in the sense of identically stored and always replicatable reality, but rather always reinvents all recalling.

certain strifes and collisions of temporary utility" (ibid.) In always repeating the same thing, society would ossify. But, firstly, every imitation is at the same time also a modification or reconfiguration. Secondly, it is the moments of awakening, the mostly small ideas and combinations of antecedent ideas, which cause change. They are imitated, or not, and lead to new inventions, or not. They stand in opposition to constant repetitions, and, as a result, drive social development forwards. For Tarde, inventive adaptation and the interruption of imitation streams is by no means an only rare and eruptive phenomenon, but rather a steady flow of "petty, individual revolts against the accepted ethics, or [...] petty, individual additions to its precepts", "minute accretions of [...] expressions", of "personal initiative, imitated by first one and then another" (ibid. 196 f.), "a seeming nothingness, whence all reality emerges in an inexhaustible stream" (ibid. 205). "Imitation, which socializes the individual, also perpetuates good ideas from every source, and in the process of perpetuating them brings them together and makes them fertile" (ibid. 189).

Tönnies' assessment is based on a misinterpretation of the concept of invention (and adaptation) with Tarde. Tarde simply does *not* reduce invention to the invented object (product, process, technology, machine, social or material construct), nor to the exceptional phenomenon of the genius. He "does not write heroic tales about inventors" (Borch/Stäheli 2009b:18), but rather links the term in a dynamic perspective to the individual as the constantly changing, contingent starting point[18] for the social realm and "a social innovation" (Tarde 1899:64). So, for Tarde, the concepts of imitation and invention do not, as Tönnies claims, form a kind of crumbling auxiliary construction based on a mutually irreconcilable and empirically obsolete oppositeness, but instead are the systematically interlinked keys to explaining (the possibility of) social changes. "Thus imitation and invention cannot be separated from each other" (Borch/Stäheli 2009b:18). Imitation means not only that ideas are imitated, but also that ideas always link onto ideas that already existed. New ideas, discoveries, inventions are "composed of elements of prior imitations; [...] and since these composites are themselves imitated and are destined to become, in turn, elements of still more complex combinations, it follows that there is a genealogical tree of such successful initiatives" (Tarde 1903:45). For Tarde, imitation does not mean the simple adoption of a behavioural disposition, but rather, in addition, the choice of an open-ended question and the opportunity for situation optimisation.

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[18] "Invention is a question followed by an answer. But for each question set a thousand answers are possible, of all possible degrees of completeness and exactness" (Tarde 1899:195). "The process of change is itself undergoing a change" (ibid. 209).

Tarde describes invention as a centre from which imitation begins. Only through imitative spread do new social facts and realities emerge.

3.2   Tarde's microfoundation of social change

If change, in a practice-theory perspective, should be viewed as a contingent phenomenon, which opposes any general (macro-)theory, because in every reproducing action and in the dependence in principle of social structures on negotiation (cf. Joas 1992:60), there is at the same time the possibility of change and hence a gigantic field of possible transformations, then the benefit of a microfoundation of the social realm consists precisely in decrypting the phenomena which shed light on the diverse processes of order and change in the social world, namely the many small social inventions, ideas, initiatives and innovations via which social change and the tension between diversity and cohesion are recursively constituted.

For Tarde, it is a question of explaining social macro-phenomena, which are easy to describe, via the more complex micro-phenomena (cf. Gilgenmann 2010:2). If social micro units are accorded constitutive importance for the dynamics of society (cf. ibid. 5), it becomes possible to describe social change not simply as trends in the sense of a transition from one state at time t to another at time t^1, but to see it as an independent non-deterministic reality. In this way, social innovation can be understood as a "starting point for creating social dynamics behind technological innovations" (Geels 2006:6), as change that arises as a result of constant changes by inventive and imitative actors (cf. Tarde 2009c:67). For Tarde, social change can be traced back to the effects of small and micro units, and hence be explained as change 'from the bottom up' – in current discourse on social transformation processes this is the fundamental prerequisite for "substantial change" (Paech 2012), in the sense of a comprehensive cultural turnaround in such a way that "alternative values and lifestyles [...] to a significant degree have spread from the bottom up" (Schneidewind 2013:139). Its emergence from unintended and intentional deviations from the ideal of imitation provides the possibility of linking micro and macro perspectives (cf. Gilgenmann 2010:7), i.e. linking a view of individuals in their society with a view of the society (cf. Abels 2009). While the macro-perspective looks at how social facts and constructs impact on social life, that is, it refers to the power of structures, institutions etc. to shape actions (cf. e.g. Hasse/Krücken 2005:17), the microfoundation of the social realm focuses on the "law of their formation" (Tarde 1899:199) and discovers how they emerge and transform. The key to this is social innovations, which spread through society as a result of imitation practices and bring about social change, i.e. a "processual change in the social structure of a society in its constitutive

institutions, cultural patterns, associated social actions and conscious awareness" (Zapf 2003:427). Even if Tarde's reading of this development is accompanied by a problematic optimism in and automatism of progress, these are non-teleological, highly contingent processes.

In this light, it also becomes clear that social innovations, both in the concrete form in which they appear and in their process of creation, cannot be intended in the proper sense, "for only that which can be anticipated as something that is already definite can be intended" (Waldenfels 1991:97). Nevertheless, and despite their mostly accidental and unremarkable emergence, they are still the result of intentional and targeted action. As an idea, new and different thought, invention or initiative, triggered by the "feeling of a connection", the "hint of something hidden" (Polany 1985:28 f.), the "flash of reflection" (Ortmann 2011:55) or a "supra-social awakening" (Moebius 2009:260), or through "intentional conditions" (cf. Searle 2011) such as intentions, beliefs, wishes, desires, interests and motives, they intentionally set out to "iteratively run through recursive loops from the known to the unknown and back again into the world", of "problem definition and problem-solving" (Ortmann 1999:250 f.) And in this way they are offered for imitation – and hence for social evaluation, selection and institutionalisation. "If the spark jumps or the opportunity is favourable, it goes like the wind" (Waldenfels 2013:45). The process of imitation and its embedded attributions performed by the actors involved make for "the erratic moment of the actually new" (Adolf 2012:28 f.) What is considered to be innovative, and what is imitated in which way in social practice, ultimately depends on the attributions performed by the actors (cf. ibid. 29) and the resulting "struggles, great or small, between the advocates of various solutions" (Tarde 1899:196).

The "object of imitation is therefore always a desire or a conviction" (Schmid 2009:300) or in other words the intentionality of individual actors, who in the form of a noticeable or also unnoticeable decision "make an active choice between ways and means of behaving [with regard to achieving a goal], including the choice of that towards which they will direct their attention while pursuing the goal" (Tomasello 2006:68) or towards which they will not. Seen from the perspective of Tarde's inventive "sociology of imitation and desire" (Borch/Stäheli 2009a), it is not a matter of whether these intentional conditions "achieve their conditions for fulfilment", but rather of the "relationship between various intentional subjects" and the "question of whether and how these attitudes [...] spread" (Schmid 2009:303).This points to the "idea of repetition" (Ortmann 1999:250), which according to Tarde as a social law is attributable to "suggestion-imitation, which, starting from a first creator of an idea or act, has passed on its example from person to person" (Tarde 1899:38 f.) Invention is nothing other than the special meeting of different imitations. Invention is an integral part of any repetition, for there is "no repetition without a tiny amount of change" (Borch/Stäheli 2009a:16). Therefore invention and the imitation of the intentionality behind it are the

inseparably interwoven drivers of change, or to be precise of the "iterative dynamisation of social structures" (Moebius 2009:257) by social innovations. "Innovations are therefore always a case for reflective and strategic action, with which rules and path developments are broken to create something new and get it accepted using power and networks" (Rammert 2010:39). "Innovation means [...] something different than action. Thus innovation is in principle embedded in the everyday stream of intentional action by competent, social actors" (Vordank 2005:41). Invention and imitation are interwoven elementary social actions which follow needs and generate new needs (cf. Stegmaier 2008:395).

Tarde devises and pursues an analytical agenda that makes social innovations the starting point for understanding social conditions and how they change. Only by analysing the many small social innovations and their underlying initiatives, ideas and inventions does the law of the formation and of change in social conditions become visible. "Tradition, habitualness, convention, once touched by the flash of reflection, disintegrates" (Ortmann 2011:55). Accordingly, there is no

> "real and fundamental continuity in historic metamorphoses. The true causes can be reduced to a chain of ideas which are, to be sure, very numerous, but which are distinct and discontinuous, although they are connected together by the much more numerous acts of imitation which are modelled upon them" (Tarde 1903:2).

Social imitation is therefore kept in motion by innovation (Keller 2009:233). Development and change are enabled by invention, by successful initiatives that are imitated and hence become (social) innovations. "Social transformations are explained by the individual initiatives which are imitated" (Tarde 1902:1 – quoted from Michaelides/Theologou 2010:363), they are the directing, determining and explanatory force (cf. ibid. 363), the "key drivers of social transformation processes" (Moebius 2009:269).

3.3. Social innovation as new social practice

Thus, according to Tarde, the key drivers of social development are the wide variety of inventions and discoveries. But what is the object of these discoveries and inventions? Whereas for Schumpeter, in his economic innovation theory, it is about the recombination of production functions, Tarde remains unspecific here and cites material artefacts but also cultural practices, ideas and feelings, which he calls inventions or discoveries. "By these two terms I mean any kind of an innovation or improvement, however slight, which is made in any previous innovation throughout the range of social phenomena language, religion, politics, law, industry, or art" (Tarde

1903:2). For Tarde's concept too, it is the case, as Rammert correctly and critically points out, that in the few approaches which grant social innovations a central status in the context of the discussion of social change, the conceptual clarity leaves very much to be desired.

> "What in Ogburn's list of social inventions still seems to be in a complete muddle – sometimes a law is named ('minimum wage', 'patent'), sometimes an institution ('basketball', 'juvenile court'), sometimes an organisation ('Ku Klux Klan', 'GmbH', 'Rotary Club') and sometimes a practice, principle or scheme ('product recall', 'quota', 'boycott') – this is systematically ordered by Wolfgang Zapf (1989) and later by Gillwald (2000)" (Rammert 2010:27).

These systematisation attempts relate to the assignment of examples of social innovation to particular areas of society and the associated goals and benefit dimensions (cf. Gillwald 2000:3, Rammert 2010:40 ff.), to their use in particular research contexts (cf. Moulaert et al. 2005), to particular patterns of order (cf. Gillwald 2000:6) and their relationship to technological innovations (cf. Brooks 1982). However, this does nothing to change the conceptual diversity and lack of clarity that are entwined around the concept of social innovation. Thus Kretschmer (cf. 2011:45 ff.) in his survey of ideas that moved the world, lists fifty-five social innovations which impressively illustrate this diffuseness. His examples range from the alphabet to the joint-stock company, the kindergarten, mail order selling, and crowdsourcing etc. They simply comprise everything that has "changed human coexistence" (ibid. 45).

Nor does a glance at the international academic debate, which in light of increasing political interest in the concept of social innovations has seen a significant upswing in recent years (cf. Howaldt/Schwarz 2010; Franz/Hochgerner/Howaldt 2012), result in any clarity. Thus, to cite one example, the Open Book of Social Innovation (Murray/Caulier-Grice/Mulgan 2010), which is influential in the European debate, provides a great abundance of examples, methods and concepts of social innovations. Here the diversity of phenomena which hide behind the concept of social innovation are not the actual problem. What is problematic, particularly for scientific discourse, is that the term itself remains unclear.[19] "The term 'social innovation' has entered the discourse of social scientists with particular speed, but there is no consensus regarding the relevance or

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[19] Social innovations are defined normatively "as new ideas (products, services and models) that simultaneously meet social needs and create new social relationships or collaborations. In other words, they are innovations that are both good for society and enhance society's capacity to act" (Murray/Caulier-Grice/Mulgan 2010:3, cf. also BEPA 2010).

specific meaning in the social sciences and humanities" (Pol/Ville 2009:878).

Here the attempt at systematisation made in the literature survey by Rüede and Lurtz (2012) seems helpful. They systematically organise the definitions of social innovation which can be found in the international debate, and distinguish seven basic definitions based on the underlying problem.

While three of the definitions they cite can each be described as a specific research field (regional development, management innovation / workplace innovation, social work) and two further definitions deal with the connection between technological and social innovations and are predominantly used in the literature relating to innovation, two fundamental concepts[20] of social innovation are recognisable at the general theoretical level (cf. ibid. 23). "Finally [...] we suggest reaching agreement on two different conceptualizations of social innovation, which are distinct from each other and carry the potential to be used for further scientific inquiries [...] namely a normative and sociological conceptualization" (ibid. 30).

Each of these two definitions centres on a different conceptualisation of the term 'social'. Whereas the first case involves a normative concept, the second definition is based on a sociological concept. Elsewhere, we made a critical study of the normative concept and suggested focusing attention on the idea of "social practices" and defining social innovation as a "targeted new combination or new configuration of social practices" (cf. Howaldt/Schwarz 2010:54). For Reckwitz, these can be defined as a "typified, routinised and socially 'understandable' bundle of activities" (Reckwitz 2003:289), which is held together by an implicit, methodical and interpretative knowledge. "Here the social should not be sought in 'intersubjectivity', nor in 'action based on norms', nor yet in 'communication', but rather in the collectivity of behaviour patterns which are held together by a specific 'practical ability'" (ibid.)

If we follow this suggestion, then the diffuseness of the concept, which Rammert criticised, can be dealt with insofar as law, institution, organisation, practice, principle and scheme each represent specific forms of such a new practice on their long journey from the invention via spread and establishment until, finally, institutionalisation. The breadth of the concept of social innovation then corresponds with the breadth of the

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[20] Following Hirsch and Levin, here the authors speak of an 'umbrella construct', defined as a "broad concept or idea used to encompass and account for a set of diverse phenomena [...]. A challenge to the umbrella construct is that consensus is hardly achieved on how to operationalize the concept, while simultaneously entailing the risk that the umbrella constructs include too many elements and mean 'all things to all people'" (Hirsch and Levin, 1999:210 quoted from Rüede/Lurtz 2010:25).

concept of the institution as a "form of stable, permanent patterns of human relationships, which were consciously designed or emerged unplanned, which are enforced in a society or supported by the notion of order which is generally regarded as being legitimate, and actually lived" (Hillmann 2007:381).[21] Here the concept of social innovation places the focus on the emergence and the process of development of such institutions and shifts the focus from the power of existing institutions to shape actions (cf. Hasse/Krücken 2005:16) to contingency and variance of social practices.

3.4   On the materiality of social practices

Reckwitz (2003) highlights the materiality of the social realm as being one of the most important basic positions of theories of social practice. Materiality means, in part, the physicality of practices, but also – and this is especially important in connection with innovation theory – the materiality of things.

> "If a practice represents a nexus of knowledge-dependent behavioural routines, then these require not only, as 'carriers', corresponding 'human' actors with specific practical knowledge that can be mobilised in their bodies, but usually also very particular artefacts, which need to be present so that a practice could emerge and therefore be carried out and reproduced" (ibid. 291).

In this sense, artefacts therefore appear as

> "objects whose appropriate use, whose practical application constitutes part of a social practice, or the social practice itself. As part of this appropriate use, the actors treat the objects with a corresponding understanding and know-how which is not itself determined by the artefacts. On the other hand, the facticity of an artefact does not allow arbitrary use and arbitrary understanding" (ibid.)

Thus Schatzki states:

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[21] "In current usage, institutions are understood as extensive patterns or systems of rules in which actors, organisations and nation states are embedded. Consequently, institutionalistic approaches concentrate on the factors that generate these patterns and/or on the consequences that these patterns have for actors" (Meyer 2005:8). At the same time, Meyer points to the diversity of forms, which can be differentiated e.g. with regard to their level of influence.

"Social orders [...] are arrangements of people and of the artefacts, organisms, and things through which they coexist, in which these entities relate and possess identity and meaning. To say that orders are established within practises is to say that arrangements – their relations, identities, and meanings – are determined there" (Schatzki 2001:53).

At the same time, it is perfectly possible to describe social practices which are not characterised by a handling of artefacts, but which relate directly to other persons or to one's own self. The social aspect of a practice, as Reckwitz expressly points out, does not consist in its needing to possess an interactive structure, but instead "in the repetitivity – enabled by collectively incorporated practical knowledge – of the same kind of activities across chronological and spatial boundaries, which is enabled by practical knowledge" (Reckwitz 2003:292), which can potentially be understood by other actors and is identifiable as a particular practice.

In this sense, artefacts would be understood as one element of a comprehensive innovation of social practices. Firstly, they are themselves the result of social practices which aim to produce artefacts (the invention and manufacture of tools, works of art, etc.) Secondly, at the same time, they form the basis and provide impetus for the further development of existing and the production of new practices. Technological innovations or the advent of new artefacts represent a special form of the appearance of a new context (cf. ibid. 295), to which no well-established practice yet corresponds, and which can therefore lead to the modification of existing or the development of new practices.[22]

Against the one-sidedness of current innovation research and innovation policy in favour of technological innovations, in light of these considerations it should be stressed that the wealth (and the particular nature) of modern societies cannot be described *solely* by the existence of the greatest possible diversity of artefacts and technologies which the people have produced. According to Tarde, technological innovations can be described as one aspect of innovations in society, which because of the prevailing imitation and invention streams have temporarily become the centre of attention. These are a specific form of inventions/discoveries which take the shape of artefacts (machines, computers, cars, etc.)[23]

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[22] "The contextuality, the situativity of the performance of practices [...] can under other circumstances however also be confronted with events, persons, actions, objects and self-reactions which routinised patterns of understanding [...] do not provide any clear tools for dealing with" (Reckwitz 2003:294). In this respect, all these changed circumstances can both require and enable new practices.

[23] Thus the objects that Neil MacGregor describes in his book "A History of The World in 100 Objects" (MacGregor 2011) are at the same time gathered as evidence of the diversity of human practices and their development, which – in

This wealth without doubt includes such practices as are aimed at producing and dealing with things, or in the sense of a wide definition of technology, which refer back to the "whole ensemble of organisational and process technology [...] but also of techniques of action and techniques of signs" (Rammert 2008:6; cf. also Grunwald 2008:42), and likewise practices with which we shape our social relationships and develop ourselves (cf. e.g. Sennett 2012).

> "The arts and the sciences grew over the course of millennia because our particularly inventive ancestors knew not only how to make new things with seeds, clay and ore, but also with sounds and signs [...]. According to the pragmatic view which I hold here, one should not understand that which we call 'growth of knowledge' as improved access to the real, but rather as an improved capacity to act – to participate in social practices which enable a richer and more fulfilled human life" (Rorty 2008:191).

It is precisely in the diversity of social practices[24] which humanity has produced during its development that Jared Diamond sees the potential value of studying traditional societies (cf. Diamond 2012:20). "Traditional societies actually represent thousands of natural experiments to build a society. They have found thousands of solutions to people's problems" (ibid. 20; the above quotations from Diamond have been translated back from German into English – authors' note).[25] Here Diamond points to the opportunity of learning from traditional societies and integrating certain aspects of their way of life and social practices into modern life (cf. Diamond 2013:44). It is these social practices and artefacts, "which in every period" make up "the entire collective knowledge of the whole social group throughout cultural history" (Tomasello 2002:17) and hence constitute the basis for the cumulative cultural evolution which is specific to humans, which explain "many of the impressive cognitive achievements of humans" (ibid.)[26]

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a similar way to the ethnographic investigations by Jared Diamond (2012) – provide information about the ways of working and ways of life of early societies.

[24] A particular form of practices aims to exploit the natural wealth by applying 'natural laws', for example the production of things, the use of fire or cultivation of cereals, and the domestication of wild animals. These are clearly social innovations which only partially find their expression in material artefacts.

[25] Cf. also Burns/Dietz (1995), who see social practices as a prerequisite for rule variability.

[26] Peter Sloterdijk in his anthropo-technology directs his attention to the social practice of practising. "According to ways of life that have existed for hundreds of years, it is clear that people, no matter what ethnic, economic and political conditions they live under, exist not only in 'material circumstances' but rather

If Latour in the actor-network theory (ANT) adds the dimension of objects to the social dimension, and therefore, as he puts it, expands "the spectrum of actors" (Latour 2010:111), that is, ascribes also to objects or artefacts or non-human beings ("such as microbes, shells, rocks and ships" (ibid. 25)) an actor function in the actor network, or makes "objects participants in the action" (ibid. 121), then this does nothing, however, to change the fact that the new association and re-assembly of elements, such as the new use of established technologies, are ultimately social innovations, which includes re-association involving objects. "Objects are everywhere, yet nowhere are they talked about" (ibid. 127).[27] Yet "these devices" are "participants in the sequence of actions, which are waiting to be given a social figuration. Of course this does not mean that these participants 'determine' the action", and nor "that objects do something 'instead of' the human actors" (ibid. 123 f.), that is, that they are subjects of social practices. Material objects can at most "empower, enable, offer, encourage, suggest, influence, prevent, authorise, exclude and so forth" (ibid. 124) – i.e. open up or restrict scope for action. "Human existence is conditioned existence, it would be impossible without things" (Arendt 1958:11). But "the conditions of human existence [...] never condition us absolutely" (ibid.). This refers e.g. to the "variety of modes of action when one deals with technology – hard and soft" (Latour 2010:124 footnote 16). From this point of view, the internet (for example) is not ascribed any particular characteristics, but rather, according to Morov, is "not more – but also not less – than a bundle of highly different practices, whose difficult genesis we should trace back, whose scale should be soberly assessed, and whose application we should weigh up and shape from case to case" (quoted from Probst 2013:55). For Latour, the term "social" denotes a "connection principle" (Latour 2010:31) which cannot be limited to the social world, the "association between entities" (cf. ibid. 112) which are only identifiable as social when they are newly grouped together, when new combinations are explored and other paths are taken.

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also cloaked in ritual" (Sloterdijk 2012:13). "It is time that man was revealed as the living being that is created through repetition" (ibid. 14).

[27] Which at least with regard to the canon of subjects in the distinct sociological sub-disciplines, e.g. particularly in the case of rural and agricultural sociology, media and communication sociology, sociology of the body and of sport, environmental sociology, urban and regional sociology, and the sociology of science and technology, one can quite reasonably dispute. Latour would probably argue here that although non-human beings are granted a role, it is only as carriers of symbolic projections (cf. Latour 2010:25). Thus, for example, he would say that the established sociology of technology explains technological change with reference to a social realm which remains constantly stable (but in contrast cf. e.g. Dolata 2011).

Interesting in this connection is Latour's reference to the etymology of the word 'thing': it originally meant a particular type of assembly, namely the sort of meeting held at a neutral, isolated place to arrive at "some kind of improvised (non-)agreement" over "disputes" (Latour 2005:29 ff.) 'Thing' here means at the same time those who assemble, and also the causes of their concerns and differences (cf. ibid. 32). It therefore involves assemblies to talk about things, and hence places and processes which gather together humans and non-human entities, such as science and technology, supermarkets, financial institutions, medical institutions, computer networks, fashion shows, pop culture (cf. ibid. 33); it is about the bringing together of the highly complex technology of an exploded space shuttle with the NASA bureaucracy (cf. ibid. 35), without which it cannot be understood that the presentation of this 'thing' in its autonomous, objective form and function is nothing but a big lie.

Seen in this way (!), this argument, which asks "which are the new institutions, processes and concepts for assembling and recombining the social realm" (Latour 2010:26 f.) is less a radicalisation of the socio-technological approach (cf. Degelsegger/Kesselring 2012), but rather is compatible with the concept of social practices that we use. Here too, human actors and non-human things/objects always 'assemble' to form new associations with each other and re-assemble the elements, that is, to generate social innovations to include an – intentionally – different way of dealing with the things and the actors. Unlike in ANT, therefore, in our opinion, there is no need for a conceptual expansion of the social world to other types of actors than social ones, for it is after all not the things themselves which as social actors decide on their practical meaning in the social world, but rather the social practices of their production and use in the sense of the – imitating or inventively (re-)adapted – way of dealing with "cultural assets and cultural techniques" and accordingly always also the way of dealing with objects, things and technological artefacts. Organic farming, urban gardening, animal welfare, round table discussions, social networks, carsharing, Trees for Climate Justice, climate change adaptation strategies, outpatient care, meals on wheels, slow/fast food, new forms of living, of working, of land use, of physical and regional planning, utility supplies and waste management, new practices of social control, etc. are social innovations insofar as and precisely because they – in the terminology of Latour – mould a new "*well-formed* [emphasis in original] assemblage" (Latour 2010:21) among human actors and things, and re-assemble heterogeneous elements. The same applies, for example, to new, adapted applications and purposes for established technologies. Technological innovations such as the wind turbine, solar cell, or electric car are successfully established when they become embedded in social

innovations such as changed consumption and use concepts[28], lifestyles, consumption patterns, practices. That is, in a movement "to sketch out a new connection [= invention – authors' note]" (ibid.), which, however, may also fail (= imitation and "contre-imitation"). As for Tarde, so too for Latour the general question is not, what are the great social phenomena (cf. Tarde 1899:183) and social conditions (cf. Tarde 1899:199) but rather: how did they arise and how do they arise, what is the "law of their formation" (ibid.)? If, with Latour, things "do not do something instead of human actors" (Latour 2010:124), but at most enable or restrict a wide variety of options for action (degrees of freedom), then for the social world as for social change, nothing but social practices – also on the level of using objects – are decisive. Only humans can "take initiative, become beginners and set something new in motion." "Taking action and starting something new [is] the same thing" (Arendt (1967) 2013:215), because and insofar as – entirely in Tarde's sense – it "interrupts" previously shaped "process flows" with a "new start" (ibid. 216 f.; the above quotations from Arendt have been translated back from German into English – authors' note).

3.5 Expansion of the scope for human action and loosening of social structures

With Luhmann, we find that social complexity, whose increase throughout the course of history has resulted in an expansion of the scope for human action, already forms an important reference point for the development of his theory. For Ogburn, the accumulation of learned behaviour patterns is a central element of his theory of social development (cf. Ogburn 1969:58 f.) "It can be assumed that inventions accumulate for the same reason that they are made: they are useful" (ibid.) Since every invention is a combination of existing elements and these elements likewise accumulate, Ogburn believes there will inevitably be a constant acceleration of the development process (cf. ibid.; the above quotations from Ogburn have been translated back from German into English – authors' note). Giddens thinks that modern societies are characterised by "a kind of historical awareness that is actively out to break up and transform social institutions" (Giddens 1995:179). Even highly bureaucratic forms of organisation are constantly innovatively active.

> "If we reserve 'organisation' for a specific technical usage, then the term can be used to designate collectivities which either emerged as a

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[28] For example, the intentional redevelopment of brownfield sites and the conversion of empty industrial buildings into modern urban living space that is adapted to new lifestyles is without doubt a social innovation, even though, on the surface, this is a technical transformation of material things.

result of deliberate social innovation, or whose form has been influenced to a large extent by such efforts" (ibid.)

This development leads not only – in view of the disappearance of certainties of expectations founded in tradition and convention – to increased requirements for behaviour coordination (cf. Hasse/Krücken 2005:95) but at the same time also to an increase in the speed of transformation (cf. Giddens 1995:178). This acceleration of social change[29] has now reached such a pace that Rosa believes it calls key basic assumptions of the Enlightenment into question. Rosa defines acceleration of social change as the "increase in the rates of decay of action-oriented experiences and expectations, and the shortening of the periods of time designated as the present for the respective social spheres" (Rosa 2005:462 f.) This leads to a growing pressure to adapt and an increased awareness of contingency.

> "The consequence of the feeling, triggered by the acceleration of social life, of standing as it were in all areas of life on slippery slopes is clear: [...] Actors feel under stress and pressure of time to keep pace with changes and not lose options for action or get left behind as a result of their knowledge and skills becoming obsolete" (ibid. 192).

Or, as Peter Conrad writes, who is quoted later in Rosa's arguments: "We run as fast as we can in order to stay in the same place" (Conrad, quoted from Rosa 2005:193). This acceleration of social change impacts not only on actors' feelings but also and above all on the political project of the modern age:

> "Whereas *history* [our emphasis] in classical modernity assumed the character of a directed movement which should be shaped politically, in the late modern period a perception of directionless historical change, which can no longer be politically managed or controlled, is increasingly gaining ground: politics is losing its compass" (ibid. 477).

Thus it cannot continue to maintain the claim that it shapes history and society.

> "The perception of an *end of history* [our emphasis] here reflects the sense of transition from a life based on a stable identity and the

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[29] Tomasello points out that precisely the form of cultural cumulative evolution allows an enormous acceleration of evolution processes compared to biological evolution. "This biological mechanism consists in social or cultural transmission, which operates on a time-scale that is many orders of magnitude faster than the processes of organic evolution" (Tomasello 2002:13).

institutional certainties of the life-course regime and shaped according to a 'life plan', to a playfully open, unpredictable life [...]" (ibid. 478).

Rosa emphasises a systemic change, which emanates from the philosophically reflectively supported change from the "post-humanist" question, focusing on technological progress and corresponding conditioning, of 'How fast can we become?', to the question focusing on social innovations of 'What is good for us?' In this connection, "resonant experiences" based on "becoming open to something" play a (diffusion-)relevant role (Rosa 2012:56 ff.)

At the same time there is an increasing loosening of social structures and practices (cf. Bauman 2003), and an increasing awareness of their contingency and shapeability. "The growing knowledgeability of and availability of knowledge to actors in modern societies" and the possibility "of effectively communicating their wish to be heard" form "the basis for self-organisation" and for resulting social innovations (Adolf 2012:39 ff.) If the situation is unstable, people are forced to constantly reshape their social practices, examine the situation very carefully, consciously reflect on, question and change habits, take breaks (cf. Sennett 2012:274), i.e. – in Tarde's words – intentionally disrupt imitation streams and carry out "social repairs" (ibid. 285).[30] For Sennett, transformation or modification, next to restoration and redevelopment, is the most radical form of social repair, with the farthest-reaching consequences, which modern society urgently needs (cf. ibid. 267 f.) These forms of social repair can also be read as types of social innovation from the point of view of their importance for social change:

• In the restoration of a ritual or of an interrupted imitation stream, "the authentic state is restored – the damage caused by wear or history is undone" (ibid. 295).
• Redevelopment is more strongly oriented to the present and has more of a strategic orientation. The condition is improved by replacing old parts with new ones; old goals are pursued with new projects and a new policy (cf. ibid.) This requires inventiveness; one needs to know what alternatives are worth considering and how they can be integrated (cf. ibid. 287).
• Modification consists of "small, surprising changes, from which it is subsequently seen that they in fact have considerable consequences"

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30 All these forms of social repair or innovation take place in and by the medium of cooperation, which "attempts to bring people together who are pursuing different or conflicting interests, who do not have a good impression of each other, who are different or simply do not understand each other" (Sennett 2012:18), that is, they produce cohesion under conditions of diversity and therefore "go deeper than the existing social order provides for" (ibid. 374).

(ibid. 288); it allows new forms of cooperation in small things and radical experiments to emerge, and can lead to unforeseen results.

This is also about questioning established habits and establishing new improved habits (cf. ibid. 269), though renewal through simplification is also important (cf. ibid. 271) and there is no "one best way" (cf. ibid. 270). It is important here to be able to fall back on a wide variety of skills and tested practices. "Only with a full quiver of technologies is it possible to master complex problems. There is rarely only one single right way that would suit all purposes" (ibid.)

It is precisely here that the 'benefit' of an innovation policy that focuses on the potential of social practices could lie. However, in this context, from the sociological perspective, scepticism is called for with regard to the position that is occasionally expressed, that this would enable innovations to be introduced into society more simply, faster and with lower financial expenditures (cf. Schneidewind 2012). Changing social practices is generally a drawn-out, contingent and self-managing process which, as Tarde points out, is subject to its own "laws" – the laws of imitation. Previous attempts to 'manage' such processes through policy have generally proven to be extremely difficult. Rogers, in his studies on the diffusion of innovations, pointed out how many preconditions are involved in intentionally changing social systems in the context of innovation processes, and how complex the problem situations are that arise when it comes to changing human behaviour. A comprehensive innovation policy, which in addition to supporting new technologies also focuses on social innovations and enabling actors "to suspend established routines and patterns, as only then can new ideas and behaviours thrive" (Adolf 2012:40), on the necessary "freedom" to do this and the opportunities "to share objectified and personal (implicit) knowledge" (ibid. 41), is only in its infancy and requires above all a deeper understanding of the workings and modes of action of social innovations. This is particularly a question of the diffusion of social innovations and the relationship between social innovations and social transformation. We will discuss this in the following chapters.

Chapter 4
Social innovation and transformative social change

As described in chapter 3 above, the discussion of the relationship between social innovations and social change is to a large extent context-dependent. In situations characterised by the emergence of new uncertainties or challenges and the questioning of existing certainties, the perspective of social-science analysis shifts from the question of the determining influence of social structures to the "possibility of social change" (Evers/Nowotny 1987:303) beyond a predetermined direction of social progress and a corresponding change in "social practices" (ibid. 304) – and so therefore to the core of the social-theory approach already developed by Tarde. An interest in society as an "expression of changing orders" is accompanied by "attention to newly invented forms of individually and collectively tested security", to a society "which began long ago to regulate itself as a whole" (ibid. 318), and in which a behaviour is increasingly in demand which "is able innovatively and by itself to develop new, adapted solutions" (ibid. 323). This is accompanied by the development of "innovative forms of organisation and cooperation that comprise a greater degree of social integration" (ibid. 322), as well as the initiation of "social experiments, especially at local level", of "new trials from the bottom up" (ibid. 326). Seen from this perspective, the "history of social progress of recent decades" turns out to be "one that was written from the bottom up", "as a counter-story to the status quo" (Welzer 2013:253). "In fact that only happens practically, never appellatively", through "laboratories of another practice" (ibid. 286 f.)

   Approaches which deal with the question of the transformation possibilities in society, that is, the ability to shape social change, and explicitly refer to Tarde, include, for example, French post-structuralism, the micropolitical approach, actor-network theory (ANT) and the philosophy of orientation.

4.1   Studies of the ability to shape society with reference to Gabriel Tarde's analytical agenda

In close connection with Tarde's microfounded social theory, French post-structuralist theory engages in detail with the intentional changeability of

the social realm. Gilles Deleuze, who together with Felix Guattari has made the most important contribution to Tarde's rediscovery (cf. Borch/Stäheli 2009b:30 ff.), addresses the "transformation possibilities and creative potentials" (Antoniolo 2010:13) in society and "searches for the conditions of the genesis and production of the new in all areas of life" (ibid. 14), for "possibilities of collective innovation through transversal transitions between the individual and the collective" (ibid.) They highlight that the "social field [...]" is "incessantly crossed by divergent and heterogeneous currents, like a meta-stable system whose creative potentials generate unforeseeable transformations" (ibid.)

The concept of micropolitics which builds on this is also heavily inspired by Tarde, in which from imitation processes, from self-changing repetitions, "through the creative dynamics at microscopic level, new behaviour patterns arise" (ibid. 15, footnote 7). Micropolitics has an active reshaping impact on macropolitical formations, socio-economic processes and institutionalised forms of power (cf. ibid. 25), and rejects "the primacy of institutionalised politics" (Krause/Rölli 2010:140). "Whenever conflicting trends call practised behaviours into question, this produces, for Tarde, the impulse for innovation" (ibid. 130), for a new action structure. To adapt their dogmas, regulations, customs, laws and morals to their knowledge and needs, individuals permanently make efforts which become many small inventions. The concept of micropolitics takes this up and focuses on the continuous "differentiations of social practices", on "the large number of differentially determined, interacting currents which run through the individual and society as a whole" (ibid. 131) and which are able "to produce new affects and associations which imply something more than the existing social conditions" (ibid. 132). Thus micropolitics generates new action structures which can overturn "the historico-social reference and representation systems" (ibid. 138). Hence "the micropolitical project" corresponds to "the updating of an always already implicit surplus of possibilities for action and expression" (ibid.), via which "new collective scope for action can be opened up" (ibid. 139). The capacity to act "grows from structures whose connections are produced by actors of all different kinds" (ibid.) Micropolitical analysis focuses on these structures and the property of being entangled in structures, or in other words on the relational structures at the micro level (see above), which the great strategies of the traditionalists and modernisers with their fixation on the great stories of technological progress or cultural hierarchies completely miss (cf. ibid. 142).

If one wants to change society because it is "full of hardships and impositions" (Latour 2010:2), then according to Latour[31] one should first

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[31] In section 3.4 above, we critically examined a number of aspects of Latour's approach which are relevant in connection with the materiality of social

try to change the concept of "society". In this point of view, he not only refers repeatedly to Tarde, but even explicitly declares him to be, although only subsequently recognised as such, a "forerunner of an alternative social theory" (Latour 2010:32), an early ancestor of ANT (cf. ibid. 34), insofar as for him too, the smallest unit supports the large one and not the other way round, because his approach, his direction of thought stands in stark contrast, not to say in "radical opposition" (ibid. 32), to the established mainstream sociology of the social realm. The actors are much more differentiated than the macro-structures, the small one is always the more complex one, structure is the simplified, routinised, repetitive element (Latour 2009:48). Out of a chaos of disharmonious heterogeneities, in the long run – through imitation – form general habits of language which can be formulated in grammatical laws. If one wants to understand a network, one should look around for the actors, and if one wants to understand an actor, one should look at the network that he has created for himself (ibid. 55).

Like Tarde, Latour's line of thinking is also in confrontation with those who believe in linear development and the supposed applicability of laws of development (cf. section 2.1). Here – without saying as such – social innovations play the decisive role.[32] For from the perspective of "reassembling the social" (Latour 2010:22), it is centrally a matter of "pursuing new associations and recording their structures, their assemblages" (ibid. 19). The social realm is defined as "a very peculiar movement of re-assembly and new association" (ibid.) of heterogeneous elements. The central question here is which are the new institutions, processes and concepts that are suitable for this (cf. ibid. 26 f.) Thus if here it is not a matter of explaining the social realm via the social realm and an absolute frame of reference, but rather of following the actors, then at the same time this requires "following behind their sometimes wild innovations" (ibid. 28). For this, the term "sociology of innovation" (ibid. 24) would be entirely appropriate.[33] As for Tarde, for Latour also the general question is not, what are the social realities, the great social phenomena (cf. Tarde 1899:183) and social conditions (cf. Tarde 1899:199) but rather:

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practices. This involves the question of classification and references with regard to scientific theory.

[32] No doubt Latour would not accept the term, given his "re-definition" of the social realm. For he is primarily concerned with the inclusion of things, of technology and other "non-human entities" as (network-)actors. For him, the connections between human and non-human entities are what make up the social realm. The social realm is not a special area of reality, but rather a "connection principle" (Latour 2010:31) that cannot be limited to the "social world".

[33] From 1982 to 2006, Latour was professor at the Center for the Sociology of Innovation (CSI) at the École Nationale Supérieure des Mines (MINES ParisTech) in Paris.

how did they arise and how do they arise, what is the "law of their formation" (ibid.)?

Stegmaier, in his "philosophy of orientation", when considering the "adoption of other orientations" through imitation and inventive adaptation, explicitly draws on Tarde's concept of society, according to which sociality is "imitation activity", i.e. society is imitation (Stegmaier 2008:393 ff.) The phenomenon of orientation is here introduced as a largely overlooked fundamental concept of social life. For orientation precedes all comprehension. It is the beginning of all decisions in life, as also in science. Orientation "is the most everyday thing that we come into contact with, the first thing from which everything emanates, and the last thing to which we return" – as it says in the publisher's announcement of the book. With all action, one must already be orientated, even if one adopts orientation from others. This is the specific capacity to always find one's way again in ever new situations, in order to identify promising scope for action. It always changes by itself when the situation changes and is therefore the critical precondition for being able to intentionally reconfigure social practices. Every orientation is always followed by a new orientation or reorientation. Common to all orientations is that one is dealing with scopes in which alternatives occur which need to be decided on in uncertainty. Orientation is always a matter of the individual orientation of individual people in individual situations. At the same time, other orientations, that is, the orientations of other people, are the most important reference point and basis for one's own orientation.

Thus Tarde's social laws of imitation, invention and adaptation come into play as essential elements in connection with the question of the orientation of action: orientation to other people's orientation and especially its adoption means imitation, understood as "the attempt at repetition of other people's seemingly successful behaviour under one's own conditions" (Stegmaier 2008:393). In analogy with Tarde, Stegmaier sees imitation as being inseparably linked with invention and adaptation: accordingly, inventions interrupt imitations and can lead to new or changed imitation processes. Every imitation is at the same time an adaptation to other situations. Therefore adaptations are always inventive, no imitation is the same as another.[34]

Likewise with explicit reference to Tarde, Rogers (2003) describes the diffusion of innovations as a specific form of social change, understood as changes in the structure and function of a social system. As we attempt to show in chapter 5 concerning the relationship between diffusion and social

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[34] In this context, Stegmaier (2008:396, footnote 81) refers to Ortmann's line of argument, which is relevant here, in "Regel und Ausnahme" (Ortmann 2003), according to which, applications of rules or rather imitation in the following of rules always at the same time also means adaptation of rules, and deviations provide room for innovative behaviour.

practices of imitation, however, this is associated with a narrowing of Tarde's perspective, or rather a serious change in perspective.

4.2 The role of social innovations in social transformation processes

As described above, social innovations are a central motor and element of social change (cf. also Cajaiba-Santana 2013). Hence it is not surprising that they occupy a key position in the debate surrounding sustainable development and necessary social transformation (cf. e.g. Rückert-John 2013c:290). "Here social innovations are placed in opposition to technological innovations and focus primarily on non-material innovations" "as pacesetters for the realisation of sustainable development" (Rückert-John 2013b:13). In this view, what matters is not so much social innovations in the sense of adaptation innovations, but rather "dynamisation innovations" (Rückert-John 2013c:292), which actively release new values and practices aimed at a kind of regime change (cf. ibid. 296). Not adaptation to or accompaniment of technological innovations, but the simultaneous consideration of the respective specific potentials and problems of technological, institutional and social innovations in the sense of system innovations (cf. Schneidewind/Scheck 2013) are what guarantee a sustainable transformation of society.

4.2.1 Social innovation and sustainable development

With regard to the need for a comprehensive transformation of the Western economic and growth model, Meadows, Meadows and Zahn (1972:173) pointed out that "social innovation can no longer lag behind technological innovation". And Agenda 21, which with the concept of sustainable development calls for directed, rapid and far-reaching changes in "the consumption patterns of industries, Governments, households and individuals" (UN 1992: section 4.16, cf. also BMU 1992: section 4.16), explicitly addresses radical changes at the level of political governance and social practices that go far beyond (necessary) technological innovations.

This assessment has now become widely established, particularly within sustainability research, which can be interpreted as a further inter- and transdisciplinary development of political-science and historical transformation research, and which, in examining options for sustainably shaping contemporary society, focuses on the areas of lifestyle in general and economic activity in particular. Social innovation is here regarded as being an independent innovation type, alongside or rather in combination

with technological and other innovations, which is constitutive for social transformation processes. This transformation can only succeed as the result of comprehensive changes in behaviour at and in every conceivable level and area of action and with the aid of new problem-solving strategies (cf. Brand 1997:27). Thus

> "sustainable development, as a development concept pertaining not only to environmental policy but also to social policy, also [opens] our eyes to non-technological, social innovations and structural changes" (Wehling 1997:38 f.) "Sustainable development is not achievable without social innovations" (Ornetzeder/Buchegger 1998:31).

The "Social-Ecological Research" funding priority of the German Federal Ministry of Education and Research (BMBF) drew attention at an early stage to the connection between sustainable development and social innovations, both as an independent theme and subject area (e.g. carsharing, mobility consulting) and to the interactions, linkages and connections with technological innovations ("system innovations"). The focus here is on the aspect of targeted, intended change towards sustainability in the sense of "path-changing" (Nill et al. 2002) and hence on a management perspective. The topic, research and action area "social-ecological transformations and social innovations" (Becker/Jahn/Schramm 1999:27 ff.) was outlined back in 1999 in the framework concept for the new funding priority. Here the focus is on "social and institutional innovations for social search, learning and decision-making processes" (ibid. 32), namely e.g. civil society self-organisation, network-building, process management, participation processes, but also new cultural practices in diverse, particularly ecologically relevant areas of need such as food, mobility, housing etc. Social-ecological research assumes that technological-economical potentials (e.g. in the area of energy usage) can only be exploited in a sustainable way if social practices also change accordingly. In this regard, the respective institutional, habitual etc. obstacles should be identified, and to remove the obstacles, suitable innovations that have a corresponding guidance effect on the social practices should be initiated. Accordingly, it is centrally a question of "the targeted changing and shaping of social rule systems as a condition for sustainable problem solutions" (Voß/Barth/Ebinger 2002:82).

From a social-theory perspective, Schneidewind, Müller and Hübscher

> "assume that the search for social-ecological development paths needs to start with the institutional structure of modern democratic constitutional industrialised societies, if it wants to more than merely fight the symptoms" (Schneidewind/Müller/Hübscher 2002:243).

This approach results in four "basic strategies for a policy of sustainability" (Minsch et al. 1998:121): self-organisation/participation, the ability to

reflect (*Reflexivität*), balance of power / conflict settlement, and innovation. Here innovation comprises technological-economic options as well as "practicable alternative social options".

> "Institutional reforms of a policy of sustainability are in themselves an extensive innovation project. In addition to technological-economic investments, a sustainable society is particularly dependent on social and institutional innovations which safeguard its capacity for development towards sustainability" (Schneidewind/Müller/Hübscher 2002:248).

Even though this gives expression to an extended and complex understanding of innovation that is not focused solely on technology, which "in terms of precision [goes] significantly [further than] earlier insights that beyond technological product and process innovations there is however also somehow organisational or social innovation" (Pfriem 2006:14), in this context so far there is still a lack of a developed, robust, theoretically grounded and practicable concept of social innovation. Alongside and in combination with technological, organisational, usage-system-related and institutional innovations, social innovations – mostly not defined in greater detail, at most illustrated – are, in current publications also, an important element of sustainability innovations, yet one which is scarcely specified in more detail (cf. Fichter/Clausen 2013).[35] Nevertheless, with increasing acceptance of the need for sustainability, the overlap between the topics of social innovation and sustainability has increased, and gained social-policy relevance (cf. Schwarz/Birke/Beerheide 2010). It is no longer just models and visions that are discussed. Rather the political, institutional and social preconditions and innovations that are necessary for their realisation are also addressed (cf. Linne/Schwarz 2003; Lucas/Schneidewind 2011).

Global challenges such as climate change and dealing with the associated consequences have "arisen through the unconsidered use of technology, which is why many attempts to remedy them with 'better' technology are part of the problem, not the solution" (Welzer 2008). Accordingly, many problems in connection with sustainability cannot, or can only inadequately, be solved by new technologies. Rather, what is central to the solution of existing problems is firstly the ability of societies to think

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[35] As the examples of "green innovation" which were picked to illustrate the point show, the concept of sustainability innovation is primarily oriented towards technological innovations (cf. Fichter/Clausen 2013:250). Although social innovation is introduced into the conceptual framework, in its purpose it remains reduced to the observation that environmentally sound technologies and products frequently only become effective in close association with changed behaviour patterns and forms of organisation as part of new consumption and use patterns (cf. ibid. 327).

long-term, and secondly their willingness to scrutinise prevailing values and their own way of life (cf. Diamond 2008:646 ff.) In keeping with the idea that "the revolution takes place not when a society adopts new technologies, but when it adopts new forms of behaviour" (Clay Shirky, quoted from Kreye 2011), the realisation of sustainability in the sense of the radical change that this aims for (cf. Lange 2008) only has a chance "if in all areas of society established behaviour patterns are questioned and reshaped where necessary" (Ornetzeder/Buchegger 1998:31).

Accordingly, research promotion aimed at sustainability would also need, with a view to "a fundamental modification [...] of socio-economic foundations, to proceed from a concept of innovation that emphasises the priority of social innovations" (Döge 1998:63):

> "For a sustainable research and technology policy, the primacy of social innovations as a whole means giving up the technology-push concept in favour of a *needs and field-based orientation* of research and development promotion" (ibid. 63 f.; emphasis in original).

At least to some extent, this point of view was taken up and implemented in the BMBF funding priority "social-ecological research", which in contrast to and, as it were, as a complement to technologically orientated innovation research, focuses on "social action" (Wächter/Janowicz 2012:306). To this extent, this funding priority can itself be called a social innovation, "since through new forms of organisation it treads new paths to achieve goals" (ibid. 307). Specifically, this means "the creation of conditions for problem-oriented, inter- and transdisciplinary research" with a view to "a social transformation towards more sustainability" (ibid. 306). In this context, social innovations are to be understood as necessary "steps in the process of shaping social change" (ibid.) It falls within the original field of competence of the social sciences to contribute the orientation knowledge and action knowledge, that is, the transformative knowledge, which is necessary to "shape ambivalent processes of change" (Paech 2005a).

In its most recent report, the German Advisory Council on Global Change (*Wissenschaftlicher Beirat der Bundesregierung Globale Umweltveränderungen,* WBGU) also comes to the conclusion that "social transformation" towards sustainability is

> "a social search process that should be assisted by experts. Here the task for research, in cooperation with politics, business and society, is to highlight climate-friendly visions for society, describe different development paths, and develop sustainable technological and social innovations" (WBGU 2011:23). "Without social innovations, it will not be possible to bring climate change under control" (Schneidewind 2012a).

With explicit reference to this position set out by WBGU, the Study Commission on Growth, Prosperity and Quality of Life (Deutscher

Bundestag 2013) also proceeds from a wider understanding of innovation that not only sees "technological innovations in each case embedded in their social context", but also, going further than this, regards "social innovations as being an independent innovation form beyond technological changes".

> "In contrast to technological innovation, here the focus is not placed on technological progress, but rather new social practices are formed (cf. Howaldt/Schwarz 2010). Social innovations here include, for example, new consumption patterns, new patterns of labour and enterprise organisation, new product and service systems, or new forms of governance (cf. also Schneidewind/Scheck 2013). Therefore, to avoid undesired side-effects of (technological) developments, an understanding of the role of social innovations in the transformation process is necessary, which still needs to be sufficiently empirically grounded, and its interactions discussed (cf. Schwarz/Birke/Beerheide 2010)" (Deutscher Bundestag 2013:617).

Transformative social change here is no longer understood to be a largely uncontrolled outcome of gradual evolutionary developments (cf. Osterhammel 2011), but as something which can in principle be shaped by society, i.e. "by the actors and their innovations" (Schneidewind 2013:123). To rely on new and optimised techniques and technologies alone to achieve this is regarded as insufficient on account of the associated problem-shifting, secondary consequences and rebound effects (cf. ibid. 126). The necessary transformation – which is already emerging in many areas, yet at the same time is also comprehensively blocked – needs to be shaped by society and demands new concepts of welfare, diverse social innovations and an as yet unattained level of international cooperation (cf. WGBU 2011).

The concept of transformative social change aims to overcome a reservation of the term 'social change' for changes in society between two points in time without a general criterion (= trends), and furthermore to focus on the change in society and related social innovations in connection with its basic institutions, values and lifestyles. From the perspective of reflective modernisation, the coordinates of transformation, understood as the production of uncertain futures, have shifted in the sense that

> "the quality of the 'Futures of Modernity' consists in their (epochal?) new openness that is leading to an equally novel form of politicization of the future: The social imagination and production of our futures points to pluralist perspectives and interests and to highly diverse constellations of actors, to politics from above and from below. It is controversial, contradictory and ambivalent" (Heinlein et al. 2012:9).

This presents a challenge for social practices of the production of the future, and also particularly for the social sciences. Primarily, this is about "freeing the active shaping of transformation processes from the status of a 'dispute over dogma'" (Schneidewind 2013:139), in that this is about competing with a technological-economic, institutional and cultural transformation paradigm (cf. Paech 2012), and – as it were running across that – highlighting the independent significance of social innovations for substantial transformative social change.

4.2.2   On the ambivalence of social innovations

From this point of view, however, the ambivalence of social innovations is easily obscured. As convincingly demonstrated by international social science research in the field of technological innovations, the concept of innovation is not suited to distinguishing 'good' and 'evil' (cf. the articles in Fagerberg/Mowery/Nelson 2005). The decisive difference is new and old.

> "The normative linking of social innovations with socially highly esteemed values, which is often found, ignores the fact that in each case according to the differing perspectives concerned and prevailing rationality, different goals and interests certainly can be pursued with a social innovation, and that accordingly, depending on whose interests are involved and the social attribution, these in no way have to be considered 'good' per se in the sense of socially desirable in order to be called social innovation – 'there is no inherent goodness in social innovation' (Lindhult 2008:44). Their benefit and their effects, depending on the point of view, just as in the case of technological innovations, can indeed be ambivalent" (Howaldt/Schwarz 2010:61).

A change in the direction of social change which is aimed for in transformation research is one possible, but not exclusive, 'option' for social innovations. This would reduce them a priori, practically and analytically, to far too small a subset, of which too much is demanded. As we remarked above, following Rosa, it is precisely the acceleration of social change as a result of many small innovations that can lead to the

> "perception of a directionless movement, and hence a 'racing standstill', which in its dimensions of both rigidification and change frees itself of any intentional shaping" (Rosa 2005:479) – i.e. in a "state in which nothing stays as it is, although nothing important changes" (ibid.)

In light of this, Rosa traces out four alternative scenarios, which from a higher-level perspective can be interpreted as 'system alternatives', and

extend from the formation of a new equilibrium (1) to the abandonment of the project of the modern age (2) and coming to terms with the loss of autonomy and – in contrast to that – the acceptance that shaping should be carried out via a forced synchronisation (3), to the final catastrophe (4) (ibid. 486 ff.) In all four system constellations, new combinations of social practices can be called social innovations, which respond to social change, give impetus to it, accelerate or also brake it (cf. Kesselring/ Leitner 2008: 19).

In light of considerations thus far, it is possible to distinguish system-immanent forms of social (adaptation-)innovation, which continue the existing system and therefore have the effect of producing a racing standstill, from such social innovations as contain a transformative potential with regard to the transition to a sustainable society.

Here it is useful to cast a glance at the findings of technology genesis research. Of particular significance are approaches which deal with questions of transition management and socio-technical system change (cf. Geels/Schot 2007). Geels and Schot pursue a multi-level approach (MLP) by distinguishing three levels: 'niche innovations', the 'sociotechnical regime', and the 'sociotechnical landscape'. They understand "transitions as outcomes of alignment between developments at multiple levels" or "as changes from one sociotechnical regime to another" (ibid. 399). Starting from these basic assumptions, they develop a typology of transformation processes, which they differentiate on the y-axis according to the availability of resources (internal/external) and on the x-axis according to the degree of coordination. Whereas "endogenous renewal" (i.e. renewal internal to the system) is performed by actors within the existing regime in the form of consensus-oriented and planned efforts as a response to perceived pressure using resources internal to the regime, the "reorientation of trajectories" (i.e. the reshaping of the path) results from a shock. In contrast, an "emergent transformation" results from uncoordinated pressure from outside of the system boundaries, while "purposive transition" is initiated from outside the existing regime as an intended and coordinated transformation process (cf. ibid. 401).

Geels and Schot admit in their discussion, with criticism in respect of their proposed typology of transformation processes, that a more nuanced understanding of such transformation processes is necessary. To us, however, it seems important that these considerations allow a closer inspection of the relationship between social innovation and social change. Seen in light of Tarde's approach, new practices of social action would first be discovered and invented at the micro level, in social niches and (protected) action contexts, and from there be imitated and spread by particular actors or networks of actors,[36] in the process of which they also

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[36] "Niche innovations are carried and developed by small networks of dedicated actors, often outside the fringe actors" (Geels/Schot 2007:400).

change. Furthermore, new social practices can develop outside of the prevailing imitation streams. Together with changes in the socio-technical landscape which exert pressure on the predominant socio-technical system (e.g. through environmental changes such as climate change or systemic dysfunctionalities (financial crisis, unemployment, social inequality, etc.)), these developments can result in a destabilisation of the system from two sides and open up 'windows of opportunity' for niche innovations, which are then transformed context-dependently and ultimately institutionalised as new social practice in the sense of a social innovation. Conversely, this means that social innovations both have a system-stabilising effect, indeed as Rosa describes can even in the negative sense have system-immanent accelerating effects, and also can potentially be an element and basis of system change towards sustainable development, as a kind of transition management.

4.2.3 Consequences for innovation policy and the process of transformative change

The observations set out above make it clear that increased attention to social innovations is urgently needed to develop the potential for new social practices beyond the hitherto dominant growth ideology. Hence a new model for innovation policy is urgently required that directs its focus from technologies onto social innovations and systemic solutions, thus transforming innovation policy into an interdepartmental social policy. At the same time, however, these observations also draw attention to a differentiated view both in respect of the currently observable tendency in politics, especially at European level, to establish social innovation as a synonym for desirable social problem-solving aimed at the public good, and also in respect of the increasing importance which the concept is gaining in transformation research. The relatively young research and policy field of social innovation, with its distinct claim to fostering inclusion, should receive greater support, "also (but not exclusively) regarding the question of the role of the state in encouraging or initiating social innovations" (Deutscher Bundestag 2013:617). One of the key tasks in this regard is a necessary redefinition of the relationship between policy and the "new power of the citizenry" (Marg et al. 2013), civil society engagement, the many and diverse initiatives and movements "for the transformation of our type of industrial society" (Welzer 2013:187). "A central element here is to enable citizens [in the sense of empowerment – authors' note] to share in responsibility for the future, which should not be equated with personal responsibility in the neoliberal sense" (Rückert-John 2013c:291, cf. also section 3.5).

With regard to a differentiated description of the relationship between social innovations and transformative social change, three complementary approaches can be identified (cf. BEPA 2010:26 ff.):

- the perspective of the social need – here the focus is on solving social problems that cannot be or are not satisfactorily solved via traditional forms of provision via the market, the service sector, and state action;
- the wider perspective of the great social challenges such as climate change, demographic change, migration and the establishment of related new forms of cooperation between actors and sectors, as well as a redefinition of the relationship between social and economic value;
- the perspective of system change or transition towards sustainable development that goes beyond traditional linear models of technological innovation, and which has the goal of reshaping society with regard to participation, empowerment and learning in and of themselves.

Pursuit of these approaches makes it necessary to place the transformation of ideas and initiatives – also beyond technological changes – as an independent form of innovation at the centre of social self-management and organisation processes and real-life experiments embedded in them as well as imitation processes going beyond them, and, relating to this, at the centre of a "truly experimental science" (Tarde 1899:198). Extensive social modification and the necessary networked loci of experimentation point to transition and the role of social innovations in this connection. Here the debate about new models of prosperity which is critical of growth is an important reference point. "Tim Jackson's study *Prosperity without Growth* is rightly considered to be one of the particularly profound economic analyses in the current growth debate" (Schneidewind 2012a:9; emphasis in original). The core of his argument is the theory that – as analysed by Schumpeter – the attraction of the new and the compulsion to permanently innovate material artefacts in production and on the consumption side mutually reinforce each other to stabilise the system and hence form the foundation of economic and social development which is based on growth, but which "doesn't necessarily" or automatically "deliver genuine social progress" (Jackson 2009:101). Given this state of affairs, it is essential to develop an entirely different economic structure. Numerous seeds, or rather experiments, for this exist, e.g. social enterprises and community projects. Under the macro-economic fetish of labour productivity, however, this "Cinderella economy" (Jackson 2012: 131 f.) is derided as being worthless, and therefore leads only a niche existence. But changes in the economic structure and in economic science alone are not sufficient, owing to the growth-oriented and growth-based interaction between production and consumption (cf. ibid. 195).

"For more than two centuries, people's energy has been focused on the economy. There is much to suggest that the moment has perhaps

arrived for homo sapiens to re-organise human activities beyond this single dimension" (Giorgio Agamben 2013:44).

The question of where a necessary "change in society" might begin is answered accordingly by Jackson with reference to the value system, lifestyles and social structures. There is a need for laboratories of social change that generate and implement "social innovations" (!) for change (cf. Jackson 2012:152), that change the logic of consumerism (cf. ibid. 155), develop credible alternatives and stimulate consideration of common goods (cf. ibid. 185) – or in Tarde's words, disrupt imitation streams through social inventions. "Making these changes may well be the biggest challenge ever faced by human society" (Jackson 2009:158). "We need a change" in the economy and society that develops a new, ecologically aware macro-economy and equally changes "the social logic of consumerism" (cf. Jackson 2012:155). It is not enough only to make public services and infrastructure 'more sustainable'. Rather, people should have the opportunity to "participate fully in social life without simply amassing things and jockeying for a higher status" (ibid. 156; the above quotations from Jackson 2012 have been translated back from German into English – authors' note). Social innovations in this sense are the motor of a "transformative literacy", a "way to increase society's ability to reflect in observing and actively shaping transformation processes" (Schneidewind 2013:139).

Social innovations and their actors, who critically, exploratively and experimentally depart from the prevailing 'mental maps', the established rules, routines, pathways and models in politics, business and society – such as the economisation of all areas of life and an inevitable link between prosperity and growth (cf. Leggewie/Welzer 2009; Jackson 2012, WBGU 2011) – who call these into question and in a "competition of ideas"[37] lead the way to changed, alternative social practices and lifestyles, are the basis and relevant drivers of transformative social change (cf. e.g. Jonker 2012; Welzer 2013). The perspective of a conception of social innovation founded in social theory therefore focuses centrally on the interfaces between the self-referencing social sectors of government, business and civil society, which are distinct from and largely shielded from each other, on their respective rationales of action and regulatory mechanisms, and on the associated problems and increasingly limited problem-solving capacities. Regarding the governance question of how

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[37] How far the competition mechanism will extend in future is ultimately a question of the competition of ideas. Balancing the limit where market mechanisms are superior and where they tend to cause harm, just like the adoption of corresponding social innovations, is a task for society, a task for its responsible citizens, not for researchers. The latter could be important in helping to decide, however (cf. Pennekamp 2013).

these interfaces should be reconfigured, established patterns of control and coordination should be added to, expanded and remoulded via aspects such as self-organisation, intersectoral cooperation, networks and new forms of knowledge production. The associated processes of "cross-sector fertilization" (Phills/Deiglmeier/Miller 2008:40 ff.) and "convergence of sectors" (cf. Austin/Gutierrez/Ogliastri 2007) increasingly enable a kind of "blended value creation" (cf. Emerson 2003) while at the same time promoting a "moralisation of markets" (Stehr 2007). Such cross-fertilisation and convergence processes require and enable far-reaching social innovations, which set in motion and spur the necessary blending of boundaries (cf. Mutius 2011:78). In view of the complex interdependencies between the different social sectors, system levels and levels of action, social innovations are necessary separate from and in addition to technological and economic innovations "in order to reach systemic synergies, productivity growth, increasing returns and steadily growing incomes (Hämäläinen and Heiskala 2007)" (BEPA 2010:24).[38]

New social practices per se cannot "on their own be regarded as the answer to the problem of sustainable development" (Rückert-John 2013c:294). Consequently, also when evaluating social innovations, advanced standards (cf. also Stiess 2013) should be applied and a process of social discourse set in motion which allows an exchange of different perspectives and rationalities and considers socially relevant interactions, via which they are given "an orientation towards sustainability" (Rückert-John 2013c:294). Necessary here too, therefore, is an innovation impact assessment and the selection of those social innovations which increase the potential for a system change leading to a sustainable society. The broader questions, however, are how do social inventions or ideas become social innovations, how can ways and opportunities for their diffusion and the accompanying drawn-out, contingent and self-managing processes be analysed and shaped, if this is a phenomenon that is fundamentally distinguishable from technological innovations?[39]

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[38] Closely linked to aspects of the transformative handling of social differentiation processes is the question of how the mechanisms of change are inscribed in the subsystem-specific sections and reconciled with the orientations to media of success (money, power etc.)

[39] This also ties in with problems that formed the subject of a workshop held by the Max Planck Institute. With direct reference to Tarde, it focused on the questions of how phenomena of spread at the macro level can be better understood by reference to the micro level. The goal was to discuss the "microfoundation of diffusion processes" (Lutter 2012:31).

Chapter 5
From diffusion to the social practices of imitation

In diffusion research, which has been shaped by Rogers' works, innovation and diffusion appear as two phases of a process. Whereas Schumpeter concerns himself with the (economic) drivers of innovation processes, Rogers turns to the users or customers and investigates mechanisms and processes that lead to the acceptance or rejection of a new idea or invention. Rogers regards Tarde as a source of inspiration for his own ideas and believes him to have been far ahead of his time (cf. Rogers 2003:41). Rogers' approach to diffusion, which is still predominant in the business economics context, exhibits a series of links to Tarde which can assist in a sociological grounding of the description of mechanisms by which social innovations spread. As a first step, these will be outlined below. Secondly, we aim to show that Rogers' reinterpretation of Tarde contributes to a problematic orientation and narrowing of diffusion research. In the third step, we elucidate the analytical value of Tarde's perspective on imitation for a changed understanding of (social) innovation processes.

5.1   Rogers' turning towards the social process inherent in the spread of innovations

Rogers at first regards diffusion as a "fundamental explanation of human behavior change" (Rogers 2003:4). Like Tarde, Rogers initially develops a concept of the innovation spread process as being a hardly predictable process that is full of surprises and largely unplanned, unplannable and therefore fraught with risk. Accordingly, diffusion is

> "a process in which an innovation is communicated through certain channels over time among the members of a social system. [...] Diffusion is a special type of communication in which the messages are about the new idea. [...] The newness means that some degree of uncertainty is involved in diffusion. [...] Uncertainty implies a lack of predictability, of structure, of information. Information is a means of reducing uncertainty. [...] Diffusion is a kind of social change, defined as the process by which alteration occurs in the structure and function of a

social system. [...] We use the word 'diffusion'[40] to include both the planned and the spontaneous spread of new ideas" (ibid. 6).[41]

In a similar way to Tarde, Rogers claims that his model can describe the spread of technological and social innovations. In this universalist view, diffusion for Rogers appears as a communication process in a network-like system of social actors. As Rogers' many case examples illustrate, the acceptance of innovations does not always take place as the realisation of rational insight into their necessity, but rather is influenced by many and diverse irrational factors. As for Tarde, the spread of innovations is a process of change in established behaviour patterns and social structures, in which the original innovation is modified by the users. Similarly to Tarde's description of imitation as a process of innovative variation, Rogers too notes that "innovation is not invariant as it diffuses" (ibid. 180) and "innovation is not necessarily a fixed entity as it diffuses within a social system" (ibid. 181). Rogers calls this variation process, which he regards as normal and desirable, "re-invention", which in extreme cases can go so far that "the original innovation might even lose its identity" (ibid. 184). Hence Rogers is conceptually very close to Tarde, even if, for the latter, the extreme case is more likely to be the normal case. The process of re-invention brings the original addressees or users of the innovation into play as co-creative actors. Thus Rogers assigns Hippel's lead user approach to the field of future research needs and asks, "is the creation of innovations by end users [...] a general pattern" (ibid. 164)?

Developments of recent years have shown that the emergence of a new innovation paradigm is accompanied by a change in the character of diffusion processes, which with Rogers is considered at best on the margins. Alongside his re-invention idea, his thoughts on decentralised diffusion systems can be quoted here:

> "Instead of coming out of formal R&D systems, innovations often bubbled up from the operational level of a system, with the inventing done by certain lead users. The new ideas spread horizontally via peer networks, with a high degree of re-invention occurring as the innovations are modified by users to fit their particular conditions. Such decentralized diffusion systems are usually not managed by technical experts. Instead, decision making in the diffusion system is widely shared, with adopters making many decisions" (ibid. 395).

And furthermore:

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[40] Rogers therefore drops Tarde's very deliberately chosen concept of imitation and replaces it with diffusion.

[41] However, the definition contains inconsistencies, since diffusion is described as "a special type of communication", as "a kind of social change", and as "the spread of new ideas".

"A fundamental assumption of decentralized diffusion systems is that members of the user system have the ability to make sound decisions about how the diffusions process should be managed. [...] Compared to centralized systems, innovations diffused in decentralized systems are likely to fit more closely with users' needs and problems [...] The high degree of user control over these key decisions means that a decentralized diffusion system is geared closely to local needs. User self-reliance is encouraged in a decentralized system" (Rogers 2003:398).

Since a low technological level of the innovation is one of the conditions cited for decentralised diffusion (cf. ibid. 398), this could be made into an argument concerning the programmatic distinction between social and technological innovations and diffusion processes. Rogers does not go so far, however, but instead defines the framework of his points of reference to Tarde as follows:

"What Tarde called 'imitation' is today called the 'adoption' of an innovation. [...] Tarde identified the adoption or rejection of innovation as a crucial outcome variable in diffusion research. He observed that the rate of adoption of a new idea usually followed an S-shaped curve over time. Astutely, Tarde recognized that the takeoff in the S-shaped curve of adoption begins to occur when the opinion leaders in a system use a new idea. So diffusion network thinking was involved in Tarde's explanation of the S-curve, even though he did not use such present-day concepts as opinion leaders, networks, homophily, and heterophily. Tarde's keyword 'imitation', implies that an individual learns about an innovation by copying someone's else adoption of the innovation, implying that diffusion is a social process of interpersonal communication networks" (ibid. 41).

On this basis, Rogers developed the diffusion approach which classical diffusion research follows to this day. It focuses on 1) the speed at which innovations spread and 2) possibilities of influencing the speed of spread, and furthermore 3) the interdependency between innovation and diffusion (cf. Hall 2006/5:460; Friemel 2005). Rogers distinguishes basic patterns of diffusion at the micro level (of the single individual) and at the macro level (as social process). At micro level, the five-phase sequential innovation decision-making process (knowledge, persuasion, acceptance/rejection decision, implementation, confirmation) is the central focus. At macro level, interest focuses on the chronological course of the adoption rate (as a characteristic S-curve) and the point in time at which

critical mass[42] is achieved. The curve over time was divided into various adopter categories (innovators, early adopters, early majority, late majority, laggards) and their characteristics described in more detail.

Rice's survey of diffusion theory also refers back to Rogers to a very great extent. Rice distinguishes four elements which in his view are aimed at reducing uncertainty through information: 1) innovation (awareness of something new, technology cluster, re-invention); 2) communication channels (mass media, interpersonal, local/folk media, digital/online, social media, networks); 3) time (individual/organisational decision-making process, innovativeness / adopter categories, adaptation rate, diffusion curves) and 4) the social system (social/formal/informal structure, communication structure, influence of networks, norms, opinion leaders and change agents (cf. Rice 2009).

5.2   Rogers' narrowing of Tarde's perspective

Although the beginnings of Rogers' diffusion approach were considerably differentiated and its usefulness in research and in particular fields of application (e.g. in development aid, in marketing, in management) was proven, the lack of further development of the theoretical foundations of diffusion research seems lamentable on the whole. Thus Katz states: "There is an apparent paradox at work: the number of diffusion studies continues at a high rate while the growth of appropriate theory is at an apparent standstill" (Katz 1999:145). For Karnowski, von Pape and Wirth, it is in particular the phenomenon of re-invention which traditional innovation research has so far failed to get to grips with theoretically or methodically. They sum this up as "re-invention challenging diffusion of innovation theory" (Karnowski/von Pape/Wirth 2011:61). Although Rogers develops a concept of diffusion as a social process, he does not provide a consistent description or explanation that is adequate to the complexity of the spread of innovations under system conditions, which are characterised by a high degree of openness, recursiveness and self-organisation. Especially in light of new innovation concepts (open innovation) and communication capabilities (Web 2.0), which feature a high level of participation and inclusion of heterogeneous stakeholders and knowledge holders (and who are typical for the context of social innovations), a "lack of sociological, theory-led underpinning" becomes noticeable (Müller 2004:26).[43]

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42   Critical mass is defined as the time from which point onwards the innovation spreads by itself.

43   For many years, the sociology of technology has also rightly pointed out the narrow outlook of diffusion research, and defines innovation as "invention, testing and successful establishment of a new socio-technical system" (Weyer

In addition to the lack of any in-depth critical theoretical examination of the approach, the "methods of diffusion research, which have not changed in decades, are one of this theory's main points of criticism" (Karnowski 2011:54). Meyer sums up the main weaknesses in Rogers' approach as "(1) quantitative data, (2) concerning a single innovation, (3) collected from adopters, (4) at a single point in time, (5) after widespread diffusion had already taken place" (Meyer 2004:59). Whereas self-criticism of traditional diffusion research, under names such as 'pro-innovation bias', 'individual blame bias' or what is called the 'recall problem' tends to operate at the level of symptoms, the following objections touch on the basic assumptions and theoretical foundations of the approach which Rogers developed. These objections can be collected from various discursive contexts. For all the differences, they are united by a more complex understanding of the interaction processes, for which openness, heterogeneity, self-organisation and networks are central points of reference.

A key step in this direction is the introduction of a difference between the innovation/diffusion of social innovations and the innovation/diffusion of technological innovations. Accordingly, social innovations differ "from technical [innovations] mostly not only in the medium [...] in which they take place, but also in the way in which they come into being" (Wehling 2013:211) and spread. Rogers, in contrast, uses a concept of technology which does not systematically distinguish between technological and social innovations, and in this case adopts a lack of definition which was already present in Tarde. Rogers' concept of technology already explicitly includes social practices and cultural techniques, but without putting these themselves at the centre of his analysis of the diffusion process.

2008:55). This is because it is interested less in individual innovations, and more "in their embeddedness in performed actions" (ibid.) and in the development of socio-technical systems. In this widening of perspective, the technology of sociology has made an important contribution to the development of a sociological understanding of innovation. However, its theoretical conceptual weakness also becomes clear in that innovation appears exclusively as a process that is tied to and dependent on technology. "Therefore, for sociological innovation research, a radical innovation is the invention of a new technology which forms the basis for the emergence of a new socio-technical system[...]" (ibid. 56). An incremental innovation is then similarly understood as being the "further development of an established technology in the context of an existing socio-technical system" (ibid. 57 f.) This focusing is well justifiable as long as the sociology of technology focuses on its subject (i.e. technology). But as soon as it – as in the quotation above – redefines itself as sociological innovation research, this narrowing of perspective becomes a fundamental problem.

"A technology is a design for instrumental action that reduces the uncertainty in the cause-effect relationships involved in achieving a desired outcome. A technology usually has two components: (1) a hardware aspect, consisting of the tool that embodies the technology as a material or physical object, and (2) a software aspect, consisting of the information base for the tool" (Rogers 2003: 13).

But he also describes innovations which consist almost entirely of ideas. For this he also uses the term "idea-only innovations" (ibid.), citing as examples phenomena such as Marxism, religious ideas (Christianity), political regulations such as smoking bans, and news events. Many of the numerous case examples given by Rogers can be classified as changed consumption and use concepts, or new practices. In this connection, he occasionally mentions specific characteristics of such "idea-only innovations", but without providing any identifiable theoretical-conceptual basis. For example, he assumes that these types of innovation are more difficult to observe (lower degree of observability) and have a slower diffusion time (slower rate of adoption). He also reserves the phenomenon of decentralised diffusion for a type of innovation for which technology (in the sense of hardware) is of secondary importance. Theoretically, conceptually and methodically, however, the differentiation that appears is superficial and ultimately inconsequential. It also does not find its way into his discussion of the "attributes of innovation" (ibid. 219 f.) The lack of clarity continues in the definition of the content of technology clusters. According to Rogers, these are "one or more distinguishable elements of technology that are perceived as being closely interrelated" (ibid. 14). As an example, he describes the recycling behaviour of different households together with further "recycling ideas" as being part of a technology cluster. Another example is the grouping together of innovations in rice and wheat cultivation to form a technology cluster, which he says has led to a "green revolution" in the third world countries of Latin America, Africa and Asia (cf. ibid.) Instead of indiscriminately subsuming all innovations from the kindergarten to drinking water hygiene, agricultural reform, photovoltaics, the electric motor, new communication technologies, laptops, AIDS prevention and anti-drug campaigns under the term 'technology', the discernible differences between technological and social innovation should be brought together and the specific diffusion paths elucidated.

Rogers does not make a consistent distinction here when he uses the term 'diffusion' equally for the process of communicating a technological innovation and for the planned or spontaneous spread of new ideas. Yet with technological innovations, there is a spread of new artefacts and/or processes. By contrast, with social innovations, ideas spread via social initiatives, social movements (cf. Rothschuh 2013), social experiments, projects etc., that is, via a process of generative, communicative recording in changed social practices. Neuloh was early in pointing to this special feature of the diffusion of social innovations, and specified it as a society-

dependent maturation process, in which the original idea is not only imitated but also modified and its content matter is made more concrete and widened (cf. Neuloh 1977b:22 f.) In contrast, the diffusion of new technologies and products does not begin until they appear and are distributed on the market. Unlike with the diffusion of technological innovations, social innovations should be interpreted as a process in which invention and spread are closely linked via forms of social learning and imitation. At the same time, the diffusion channels for social innovations are more diverse and usually closely interlinked (cf. Howaldt/Schwarz 2010: 64 ff.) Social inventions can take shape and spread both via the market (e.g. as new services, business models, supply and use concepts) and via technological infrastructures (web-based social networking), via social networks, social movements, initiatives and the settlement of social conflicts, via state regulations and (project) support, via intermediary and self-organised institutions such as foundations, in inter- and intra-organisational processes, via the influence of charismatic personalities (cf. Mumford 2002), social entrepreneurs and "activists", via "living experiences", individually and collectively changed values, patterns of behaviour and consumption, social experiments, projects and learning processes, and via all kinds of different forms of communication, cooperation and "post-conventional participation" (cf. Marg et al. 2013). From history-of-ideas perspectives, social innovations arise through the transformation of ideologies, theories, semantics, social criticism, civil society models and concepts, and new social policy ideas into social practices, that is, through the translation of cultural meaning into social form and the development of "practical arts" (cf. Pankoke/Quenzel 2006) for shaping private and public life.[44]

In their analysis of the potential of social innovations to cope with fundamental challenges by 2030 in Germany, Müller et al. underline the importance and diversity of potential areas of intervention, and the diverse actors, who, with a wide variety of possibilities for diffusion, contribute their respective ideas. Those mentioned included state actors as well as

> "individuals, teams, groups, existing companies and start-ups, charities and local authorities [...]. To implement their ideas, they may start a movement, campaign for a law, form a cooperative or start a limited company" (Müller et al. 2013:4).

In the description of their urban development project, Butzin, Terstrieb and Welschoff also assume that "clear differences in the diffusion channels of social innovations" can be observed, and underline the special importance of local contexts, of the geographical fabric and the socio-cultural

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[44] For historical and systematic perspectives on the relationship between "social change and cultural innovation" cf. Drepper/Göbel/Nokielski (2005).

embedding. Diffusion in the sense of transferring an idea tested in one city to the different context of another city requires difficult contextualisations, de-contextualisations and re-contextualisations (cf. Butzin/Terstrieb/Welschoff 2013:8).

Rogers' model is only an imperfect tool for giving structure to or understanding such processes. Thus Butzin, Terstrieb and Welschoff also do not follow Rogers, but instead follow the model of "up-scaling", as described in the "Open Book of Social Innovation" by Murray, Caulier-Grice and Mulgan as a spiral-shaped process of social innovation (prompts, proposals, prototypes, sustaining, scaling, systemic change). Here too, the diverse types of diffusion of social innovations are noted:

> "There are many methods for growing social innovations – from organisational growth and franchising to collaboration and looser diffusion. Some of these involve scaling – a metaphor taken from manufacturing. Others are better understood as more organic – 'cut and graft', with ideas adapting as they spread, rather than growing in a single form. Indeed, most social ideas have spread not through the growth of an organisation but through emulation. The supply of ideas and demand for them tend to co-evolve: there are relatively few fields where there are straightforward solutions which can simply be spread" (Murray/Caulier-Grice/Mulgan 2010:82).

Tarde proceeds in a sociological perspective from the social practices of imitation and the resulting changes in social practices. Rogers, in contrast, focuses on the innovation that is fed into the diffusion process and which presents "potential users" with the decision to accept or reject the innovation.

> "Diffusion research has a pragmatic appeal in getting research results utilized. The diffusion approach promises a means to provide solutions (1) to individuals and/or organizations who have invested in research on some topic and seek to get the scientific findings utilized and/or (2) those who desire to use research results of others to solve a particular social problem or to fulfill a need. The diffusion approach helps to connect research-based innovations with the potential users of such innovations in a knowledge-utilization process" (Rogers 2003:105).

Whereas other research institutions and disciplines (e.g. network research, communication science, in some cases also business economics) have given more attention to models of open innovation, i.e. to approaches in which ultimately the role of the passive recipient of innovation dissolves and co-creative approaches gain importance, to date in traditional diffusion research there prevails "a linear understanding of the diffusion process from the inventor to the late adopter, which also contains a static concept

of innovation and a purely passive role of the adopter, who can choose only between acceptance and rejection" (Karnowski 2011:72).

Thus Rogers limits diffusion to the format of traditional transfer processes. Karnowski, von Pape and Wirth criticise this narrowing as being a step backwards from Tarde.

> "Tarde [...] had a much wider understanding of what constitutes an innovation and what users could do with an innovation. Thinking in terms of metaphors rather than hypotheses and operationalization, Tarde considers innovations as waves that spread among society. Using this metaphor, he expresses two advanced but long-forgotten ideas: Innovations may change in the course of diffusion. [...] The importance of adopters for the evolution of innovations is much greater than generally thought. In extreme cases, the inventor generates only a quasi-accidental impulse that develops its force in the course of spreading throughout society, just as a butterfly flapping its wings may lead to a landslide, in the words of Tarde (1902, p. 562)" (Karnowski / von Pape / Wirth 2011:58).

The dependency of the spread of social innovations on the participation and inclusion of heterogeneous actor groups is to a large degree characterised by intrinsic dynamics, by forms of situational, decentralised self-management and post-conventional participation (cf. Marg et al. 2013). The decentralised nature of these processes increasingly escapes the conventional principles of governance of political authorities (as well) and instead requires – as necessary social innovations (cf. Heidenreich 1997) – the development of new forms of governance that are tailored to this decentralised nature, or to be precise, the establishment of "laboratories for social change" (Jackson 2012:150). Wiesenthal points out that wherever "something like social self-management" in the sense of "corrective influence on social processes" takes place, this always rests on a very large number of conditions, is only effective to a limited extent, and is associated with "emergent outcomes" (Wiesenthal 2006:143). This is true, however, for all forms of "effect exerted on society by itself as intended", i.e. also and especially for state control. He regards the "defeatist theory of the futility of all relevant efforts" at social control and also social self-management as being refuted. Both are "possible in principle [...], but not always, not everywhere and certainly not for all conceivable or desirable goals" (ibid. 233).

5.3   Tarde and society's self-invention

Contrary to what Rogers claims, in his references to Tarde it is not a matter of minor differences between himself and Tarde, that is, of "slightly

different concepts" (Rogers 2003:41), but rather of a serious change in perspective. Whereas Tarde's sociology of imitation is interested in the genesis of the new as social practice, Rogers takes innovation (as generally rational problem-solving produced by science and technology) for granted and focuses on its "transfer" into different areas of application. Thus Rogers severs the direct connection between invention and imitation, through which an invention first becomes an innovation – and therefore a social fact – and reduces the creative process of imitation to its adaptive function. According to Rogers' definition, innovation precedes the diffusion process. Diffusion focuses on the related rejection and acceptance behaviour, i.e. the innovation gains acceptance instead of being produced.

The associated diffusion research asks, with regard to the intended target groups, how the innovation can be substantively modified and prepared for information and communication purposes so that the adaptation rate can be increased and/or accelerated. It attempts to develop push strategies aimed at speeding up the introduction of solutions into society (outside-in processes). Society itself as the original source of innovation and creativity is a blind spot in diffusion research. The pro-innovation bias is constitutive for diffusion research. In the context of traditional diffusion research, the examination of rejection behaviour compared to the favoured model does not represent a relativisation or overcoming of this bias, but rather an optimisation of it. Action is guided by strategies to convince and persuade to heighten the impact. Diffusion research therefore generates an asymmetrical communication relationship between developers and users of problem solutions / innovations.[45]

On the other hand, if one starts with Tarde's understanding of the relationship between invention and imitation, then that which Rogers defines as diffusion of an idea, technology etc. appears as a process which initiates new acts of imitation and triggers cultural learning processes while interrupting existing imitation streams and advancing social change. Inventions open up new opportunities, expose problems and shortcomings in established practices, initiate processes of learning and reflection, and ultimately enable new social practices. To this extent, with any invention, one should enquire about its potential to trigger such imitation and learning processes and hence generate new social practices. Only through the

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[45] An early example of this understanding of diffusion can be found e.g. in the innovation policy of the United States government, which has gained increasing acceptance since the end of the Second World War, as founded by Vannevar Bush in his report "The Endless Frontier" (1945) to President Roosevelt. In light of experiences of close cooperation between the state and military during World War II, the report calls for a continued active role for the state after the war. Scientific and technological progress is declared to be the key driving force of social welfare, and the need for active state support of science and research is derived, which explicitly should exclude the humanities and social sciences.

development of new or changes in existing practices do their effects unfurl, do inventions become innovations and hence social facts. The process of diffusion is therefore a process that sets social learning processes in motion, that is centred on changing patterns of behaviour triggered by new inventions.

The internal logic of these processes of imitation and social learning, which Tarde makes the focus of his attention by attempting to decode their laws, therefore determines the innovation process. The unpredictable dynamics of the self-organised interaction of heterogeneous actors dealing in various ways with innovations requires "more realistic assumptions about decision-making processes" (Schröder/Huck/Haan 2011:28) and an approach that ultimately inverts Rogers' perspective. Whereas traditional diffusion research offers ex-post explanations of how individual innovations have ended up in social practice, the goal here is to develop approaches to understanding the genesis of innovations from the broad range of social practice, and which to this extent are concerned not so much with the transfer and modification of isolated singular innovation offerings but rather with multiple innovation streams, fed by an evolutionary interplay of invention and imitation: the "circuit of acts that are interlaced and repeat themselves with variations" (Tarde 1899:146).

Moldaschl pointed out that Tarde does not take innovation as his starting point, but rather illuminates the two "neighbours" of this term. Thus Tarde distinguishes

> "*invention and imitation* [emphasis in original] and assigns central importance in socialisation to the latter. [...] Tarde's approach today could be a corrective with respect to the inordinate overestimation of innovation and the widespread disregard for imitation (analogous to the historiography of 'great men'). The evolutionary aspect of his perspective is also found here. Firstly, he emphasises the non-teleological character of change, which is what first gives imitation its social importance. Secondly, in the sense of the above chains of events [what is meant is that events are fed by acts of imitation, which for their part, in turn, go back to previous acts of imitation – authors' note], it is also again a source of variation, since no imitation represents a complete copy of the model. This can also be called *learning* [emphasis in original], and this also includes the non-cognitive dimensions. All cultural exchange took place in this way" (Moldaschl 2010:3 f.)

Tarde's model of imitation emphasises the cultural dimension of the spread of innovations[46] and therefore accentuates the continuity of the old in the

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46 In the research programme of the "Cultural Sources of Newness" department at the Berlin Social Science Center (Wissenschaftszentrum Berlin für Sozialforschung, WZB), innovation is analysed as a multiply determined cultural

new. Although Tarde too describes the process in which imitation streams cross and impetus is produced, resulting in changes of direction, this should not be equated with the idea of creative destruction, nor with the closely related overvaluation of radical, discontinuous innovations. Whereas the implications of a constant elimination of the existing (synonyms for destroy are for example scrap, demolish, break, smash, trash) in favour of new creations appear questionable not least from a sustainability point of view, Tarde takes the view that there is continuous change, which is a process emanating from what are initially usually marginal ideas, initiatives or inventions 'from the bottom up', which gradually concretise, change, adapt and communalise, and therefore are not marked by "discontinuity and suddenness of the creation of the new, which breaks with the old, but rather by the playful enjoyment of changing, varying, combining and transforming" (Han 2011:83).

With Tarde, therefore, another important shift in perspective can be carried out. Rather than constantly producing new individual inventions, it seems more meaningful to creatively reconfigure the potentials of existing inventions through social practice.

> "The qualities which make a man superior in any country and at any period are those which enable him to understand the group of discoveries and to make use of the group of inventions which have already appeared." (Tarde 1903:235). "We must see that social superiority always and everywhere consists of objective circumstances or of subjective traits which aid in the exploitation of existing discoveries and inventions." (ibid. 237).

In light of this, for Tarde a people's prosperity is based on its ability to "make use of contemporaneous knowledge" in a particular way (ibid. 238). Schröder, Huck and Haan (2011) also take the view that social innovations should be

> "understood as a cultural transmission process ('biased cultural transmission') that rests to a large degree on imitation. Existing social structures (such as status and hierarchies), psychological constitutions (such as taste preferences) and cultural patterns of interpretation act as a general framework for the spread of innovations as a cultural transmission process" (Schröder/Huck/Haan 2011:28).

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context. "Three processes are regarded as being decisive for the quality and connectivity of innovations: 1) constant variation of things culturally taken for granted, 2) processes of evaluation as something new, and 3) states of tension that exist in and between cultures" (Hutter et al. 2010:3).

If, like Tarde, one seeks to explain a situation from the imitation practices of people, the specific cultural frameworks need to be decoded. For: "people do not simply imitate random things from random people" (Henrich 2001:997; quoted from: Schröder/Huck/Haan:28).

At the same time, inventions can also be adopted from other cultural groups. Not only Tarde, but later Ogburn too emphasises:

> "But the inhabitants of a cultural group can also come into possession of inventions, without making inventions themselves, by importing them from other countries. In fact, most inventions found within a specific area are imported [...]" (Ogburn 1969:62).

And he continues: "Periods of particular creativity in a people can sometimes be traced back to the adoption of important inventions or a large number of inventions [...]" (ibid. 63; the above quotations from Ogburn have been translated back from German into English – authors' note). Here he points to the Renaissance in Italy, which owes its creativity to the influx of ideas from antiquity.

With the shift in perspective from inventions to social practices of imitation, the key question in the context of diffusion is how new social practices come into being from the imitation of social practices. Rogers' understanding of adaption ultimately remains trapped in a binary code, whereas Tarde "had a much wider understanding of what constitutes an innovation and what users could do with an innovation" (Karnowski/von Pape/Wirth 2011:58). The term 'imitation' is better suited to capturing the constitution conditions and spread mechanisms of social innovations in their diversity, and to describing the genesis of innovations from out of this diversity.[47] The concept of imitation underpins an understanding of innovation to which social practices are central, since only these can be imitated, but not artefacts. Practices of organisation, consumption, production and so forth, which include the manufacture and use of technological artefacts, become the central object of Tarde's conception of imitation. The imitative spread of social ideas or initiatives tends to combine with other inventions to form increasingly complex and more widely acting social innovations. Imitation always also involves variation, and to this extent imitations constantly bring innovations into social structures and constructs.

However, the (few) approaches so far which explicitly consider the diffusion of social innovation largely follow the premisses of traditional

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[47] Although Rogers uses re-invention to describe a context in which social actors modify the initial innovation, the crucial impetus comes from the scientific system: "Rogers considers that Re-Invention is more likely to occur late in the diffusion process, when members of the social system have become accustomed to the innovation" (Karnowski / von Pape / Wirth 2011:62).

diffusion research. For this reason, further considerations can be successful in isolation, but they fail to integrate to form a new perspective.[48]

- Bradach in his observations on the replication of social programs notes that "it is very difficult to pursue pure 'push' strategies" (Bradach 2003:24), but he focuses on franchise models. Scaling presupposes the possibility of analysing a functioning "operating model". The scaling potential then depends on the extent to which its core components and activities can be described and standardised.
- Dees et al, after several years of research on up-scaling in the social sector, come to the conclusion that it is necessary
"to step back and take a more strategic and systematic approach to the question of how to spread social innovations. Too often, they frame the problem in terms of either 'replication', the diffusion and adoption of model social programs, or, more recently 'scaling up' which commonly entails significant organizational growth and central coordination" (Dees et al. 2004:26).
Yet the authors are 'only' concerned with a gradual expansion of strategic options for entrepreneurs. It remains their goal to organise a "widespread and timely impact" (ibid.) for an existing innovation.
- An expert survey by Ashoka (cf. Höll/Oldenburg 2011) identifies ten key barriers to social innovations in Germany and presents six approaches for overcoming them. One of the proposals is to set up transfer agencies for social innovations in analogy with technology transfer centres. Even though the ideas are presented as open to development, and very much depends on the form that they take, at first they follow the pattern of conventional transfer logic.[49]
- In a current study by Bertelsmann Stiftung (2013) on the scaling of social impact, a viable model is again seen as being a fundamental requirement. Based on the characteristics of the model, the study elucidates four scaling strategies: capacity increase, strategic expansion, contractually based partnership, and knowledge diffusion.

A more advanced claim to developing a different understanding of diffusion is formulated by Vishwanath and Barnett, but without making the diffusion of social innovations the focus of consideration. Their edited volume aims

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[48] In light of the international debate on diffusion and scaling approaches, Davies/Simon (2013) also note their inadequacy in the context of social innovation (cf. Davies/Simon 2013).

[49] The expert survey was conducted in July and August 2011 by Ashoka Deutschland with a team of consultants from McKinsey & Company, based on forty interviews with experts representing foundations, charities, policy-makers, social investors, business and science.

to show "what is missing in diffusion research and open new theoretical and methodological frontiers for research in diffusion" (Vishwanath/Barnett 2011:6). In the introductory article, they point out that "diffusion scholarship continues to suffer from a pro-innovation bias" (ibid. 2). Furthermore, they believe that research is fixated on the diffusion of technologies and has ceased to concern itself with the spread of non-technological innovations:

> "Early research on the dissemination of news, ideas, information, culture, networks, and health behavior is no longer the focus of diffusion research. Rather, the current focus is generally limited to the diffusion of new technologies. [...] Diffusion scholarship continues to suffer from pro-innovation bias" (ibid. 1 f.)

Further points of criticism are

> "the extant use of linear models" (ibid. 3), a "binary perspective" (ibid.), "the need to take a user perspective [...] and study the interaction between the emergence of needs and the use of services along with the influence of time on this process" (ibid.), "oversimplification [...] of assumptions about the adopting population, the channels through which information is disseminated, and the characteristics of the innovation" (ibid. 4).

Vishwanath/Barnett attach great importance to the observation concerning re-invention that was put forward by Rice/Rogers back in 1980.

> "These changes and modifications take place because the meanings of innovations are negotiated by adoptors through their interactions with the interpersonal and mass-mediated messages about the innovation. These messages result in a collective frame that emerges and influences the subsequent adoptors of the innovation as well as their ultimate experience with the innovation" (ibid. 2).

These processes can no longer be represented within the framework of binary logic. Re-invention takes diffusion research to its limits. "Reinvention has always challenged this view, even more so today with increasing complexity of innovations" (ibid. 3). Insofar as re-invention is still discussed as the processing, negotiation and modification of an input, one is moving within traditional limitations, but insofar as the activity of producing the new out of social practice is made the focus (inside-out processes), one is moving within another paradigm.

The establishment and spread of social innovations from the interplay of imitation, opposition and adaptation is more difficult to penetrate analytically and directly intentionally control than would appear to be the case with the production and establishment of new technologies.

"Technological innovations are easier to grasp. It is easier to sum them up, to say concisely what is new about them, what the innovation is. And the cause-effect relationship is usually easier to understand. But more complex problems often require different approaches – changes in attitude for example, or a new way for actors and institutions to interact with each other" (Müller 2013:1 f.)

Attempts to intentionally control social innovations primarily rely on context management, and the possibilities for taking drastic measures remain limited. They relate to highly dynamic constellations of action, in which management can predominantly take place as an attempt, which is weak per se, to coordinate multiple intentionalities, and furthermore is hindered by a multitude of changing rationalities and irrationalities. Social innovations fundamentally require forms of management that can be characterised as governance. In a general sense, this involves "patterns of dealing with interdependencies between actors" (Schimank 2007:29). A narrow concept of governance concentrates on "those forms of management in which the central focus is not on hierarchical government decisions, but rather in which interaction between the public and private sectors is predominant" (Schuppert 2008:24). So this is about forms of non-hierarchical "management, characterised by the inclusion of non-governmental actors, beyond the classic repertoire of government and administration" (ibid.) In contrast, a broad concept of governance comprises "the entire spectrum of patterns of interaction and modes of collective action" including "institutionalised social self-regulation" (ibid.)

With regard to the diffusion of social innovations, interest centres on a reconfiguration of the interfaces between the sectors of government, business, science and civil society, which are distinct from and largely shielded from each other (cf. also section 4.2.3). After highlighting the differences between the diffusion of social and technological innovations, attention should be directed to the question of which "new insights into the specific dynamics and development of social innovation processes" (IAT project information 2013) can be gained, where "diffusion processes" should be understood "as a particular problem of social innovations" (Butzin/Terstrieb/Welschoff 2013:8). One of the key distinctive features is that imitation streams which are functioning and felt to be desirable, or rather the associated social practices and institutional settings, are "strongly bound into local contexts" (ibid.) and cannot simply be transferred from A to B. It is to be expected that attempts to direct the diffusion of social innovation, that is, of imitation behaviour, in keeping with the "principle of differentiated regulation" (Adolf 2012:42), will be reflected in the differentiation of governance models. This challenges the capability to develop performative strategies and to shape open multi-stakeholder dialogue, e.g. through forms of cooperative road-mapping (cf. Birke/Rauscher/Schwarz 2011; Birke/Hasse/Schwarz 2012).

Chapter 6
Conclusion and outlook

The starting point and reason for writing this paper is the realisation that a primarily practice- and policy-driven interest in social innovations on the part of science, which cannot be ignored and is increasingly widespread, is faced with a theoretical and analytical gap or grey area. For the most part, there has been no serious analysis of social changes from the point of view of social innovations. Instead, the social sciences' consideration of social innovations tends to revolve around the question of whether their scientific study is analytically productive and can be theoretically grounded in terms of an independent innovation type that can be clearly distinguished from technological and other innovations particularly with regard to transformative social change (cf. e.g. Wehling 2013 and Rückert-John 2013a). This is faced in practice with the view, which has now progressed as far as EU policy and research programmes, that the sustainability of society depends critically on whether and to what extent we succeed in developing, establishing and spreading social innovations, in order on this basis to set in motion transformation processes that are considered necessary.

Given the above, from a sociological point of view, the questions arise of how social innovation should be defined not only normatively but analytically, how (transformative) social change and social innovation conceptually relate to each other, what requirements result from this for an integrated theory of 'innovations in society' that is grounded in social theory, how these can be satisfied, and what challenges therefore result for sociological research itself and its role in social transformation and change processes.

If social innovations can be defined in a general sense as intentional reconfiguration of social practices in particular areas of action or social contexts, then they stand out as a social mechanism at the micro and meso level that is distinguishable from social macro phenomena, and in a practice-theory perspective they enable a microfoundation of social change. An important, long-overlooked reference in social theory for such a perspective is the event-oriented social theory of Gabriel Tarde, which to a certain extent consists of an analytical programme, which with regard to social phenomena, facts and conditions, social order, structures and social change, takes social innovations as its starting point and makes them the theoretical and empirical focus of a "truly experimental science" (Tarde 1899:198). Researching the many small inventions, ideas, initiatives, the

intentional attitudes behind them, whether and how they spread through imitation and in so doing change at the same time and in this way bring social innovations in to the world, which as part of an emergent process join together to form ever more complex constructs and therefore produce social development and transformative social change, or in other words, the dynamism based on which social innovations arise as a prerequisite and driver of social change – this is for Tarde the proper task of sociology. For: "Socially, everything is either invention or imitation" (Tarde 1903:3). Every invention and every discovery provide answers to a question or to a "social problem", interrupt the usual course of history, are "revolts against the accepted ethics" (Tarde 1899:187). "Whereas the normal is based on routines and unreflected repetitions, the new bursts forth from tedium, disruptions or problem-shifting" (Rammert 2010:33). What marks this new out as being new, how it comes into being, whether and how it spreads – this is ultimately a question of the attribution performed by the actors involved and therefore not of identifying it ex ante and ex definitionem, but rather of investigating it empirically as a constitutive element of social imitations and learning processes. "The difficulty here consists in the balancing act of preserving the non-controllable, intangible moment of innovation, but at the same time not ascribing it to chance" (Adolf 2012:28). With such an analytical programme, the role and function of sociological research itself also change, insofar as with its core competence it does not act as a controlling science, but instead actively takes part in and helps to shape highly intrinsically dynamic and self-organised social innovation processes, as well as becoming involved in ensuring that actors are suitably qualified "to initiate well-defined change processes" (Schneidewind 2010:123).[50] If the main object of enquiry for sociology is the social practices via which society constitutes, defines, stabilises and changes itself, then it is precisely the related analytical and design-relevant core competencies which are important for social innovations as the motor of transformative social change.

Tarde's social theory can be understood and developed further as a theory of the "innovations of society" (Rammert 2010), which is able to decode the relationship between social innovations and (transformative) social change, because as a forceful scientific conception of active social life (cf. Toews 2013:401) its concept of innovation is free of the intense focusing on the technological and economic reference context which has been dominant since Schumpeter, and instead concentrates on social practices. It is sufficiently abstract for an all-embracing concept of innovation as social phenomenon, and at the same time enables a specification in relation to different reference contexts, and at the same time an integrative examination of social and other innovations.

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[50] Schneidewind (2010:123) calls this "transformation knowledge" in addition to "system knowledge" and "target knowledge".

If the question of the relationship between social innovations and social change has become a core issue for scientific discussion and for the politically practical shaping of social innovations, then recourse to Tarde highlights their importance as a central element of a non-deterministic explanation of social change and a key element of social transformation processes. In this sense, social innovations are key 'triggers', drivers and elements of this transformation. At the same time, with Tarde the narrowness of the prevailing diffusion theory can be overcome, since he directs attention to the importance of acts of imitation as the central mechanism for the spread and institutionalisation of social innovations, in whose performance the possibility – and necessity – of re-invention is always present.

Because Tarde places the practices of imitation and its laws at the centre of his theory of social development, reference to the associated microfoundation of social phenomena provides vital input into an integrative theory of innovation. It enables us to discover how social phenomena, conditions and constructs come into being and transform. A sociological innovation theory must therefore examine the many and varied imitation streams, and decode their logics and laws. From this perspective, the focus is always on social practice, since it is only via social practice that the diverse inventions etc. make their way into society and thus become the object of acts of imitation. Social practice is a central component of a theory of transformative social change, in which the wide variety of everyday inventions constitute stimuli and incentives for reflecting on and possibly changing social practices. It is only when these stimuli are absorbed, thereby leading to changes in existing social practices which spread through society and construct social cohesion via acts of imitation, that they drive social transformation. Thus new perspectives open up on an understanding of innovation, which adequately capture the diversity of innovations in society.[51]

The great challenge for contemporary innovation policy lies in exploiting these potentials. Nearly seventy years ago, in his 1945 report to President Roosevelt, V. Bush directed the pioneering spirit towards exploring the

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[51] In the context of project "Social Innovation: Driving Force of Social Change (SI-Drive)" funded under the EU's Seventh Framework Programme for Research and Technological Development, from January 2014 an international consortium under the leadership of Sozialforschungsstelle Dortmund is conducting a global study on social innovations that aims to gain a better understanding of the specific qualities, interrelationships and success factors of social innovations in their respective cultural contexts and to carry out a theoretical and empirical underpinning of the associated new innovation paradigm. Associated with this is the further development of a sociological innovation theory as outlined in this paper with recourse to Tarde.

"endless frontiers" of natural science research, hoping that this would promote social welfare.[52]

> "It has been basic United States policy that Government should foster the opening of new frontiers. It opened the seas to clipper ships and furnished land for pioneers. Although these frontiers have more or less disappeared, the frontier of science remains. It is in keeping with the American tradition – one which has made the United States great – that new frontiers shall be made accessible for development by all American citizens" (Bush 1945: page number not specified).

Today we need a fundamental broadening of perspective. Firstly, challenges are presented on a global scale. Overcoming them requires a global perspective. Secondly, the major challenges are in the social sphere. Thus the Vienna Declaration states:

> "The most urgent and important innovations in the 21st century will take place in the social field. This opens up the necessity as well as possibilities for Social Sciences and Humanities to find new roles and relevance by generating knowledge applicable to new dynamics and structures of contemporary and future societies." (Hochgerner/Franz/Howaldt 2011).

As the conditions were created in the middle of the last century – based on a systematic innovation policy – to explore the potentials of the natural sciences and to make them usable for society, so at the beginning of the 21st century we need just as great a pioneering spirit in the search for new social practices that secure the future and allow people to live "a richer and more fulfilled human life" (Rorty 2008:191).

The observations set out above make it clear that increased attention to social innovations is necessary to develop the potential for new social practices beyond the hitherto dominant growth ideology. To this extent, a

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52 Thus Bush stated "without scientific progress no amount of achievement in other directions can insure our health, prosperity, and security as a nation in the modern world". And: "The Government should accept new responsibilities for promoting the flow of new scientific knowledge and the development of scientific talent in our youth. These responsibilities are the proper concern of the Government, for they vitally affect our health, our jobs, and our national security. It is in keeping also with basic United States policy that the Government should foster the opening of new frontiers and this is the modern way to do it. For many years the Government has wisely supported research in the agricultural colleges and the benefits have been great. The time has come when such support should be extended to other fields" (Bush 1945: page numbers not specified).

new model for innovation policy is required that directs its focus from technologies onto social innovations and systemic solutions and onto a corresponding empowerment of actors, thus transforming innovation policy into a comprehensive social policy.

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Appendix

Selected publications and lectures by the authors on the theme of social innovation

A Publications

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