

Globalizations



ISSN: 1474-7731 (Print) 1474-774X (Online) Journal homepage: https://www.tandfonline.com/loi/rglo20

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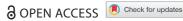
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To cite this article: Ulrich Brand, Christoph Görg & Markus Wissen (2020) Overcoming neoliberal globalization: social-ecological transformation from a Polanyian perspective and beyond, Globalizations, 17:1, 161-176, DOI: 10.1080/14747731.2019.1644708

To link to this article: https://doi.org/10.1080/14747731.2019.1644708

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Overcoming neoliberal globalization: social-ecological transformation from a Polanyian perspective and beyond

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The ecological crisis has intensified in many respects. Prominent proposals to deal with the crisis are discussed under the header 'sustainability transformations' or even 'Great Transformation'. We argue that most contributions suffer from a narrow analytical approach to transformation ignoring the largely unsustainable dynamics of global capitalism and the power relations involved in it. Thus, a 'new critical orthodoxy' of knowledge about transformation is emerging which runs the danger to contribute to a spatially and socially highly uneven green capitalism. This article claims that the current debate on social-ecological transformation can be enriched by a Polanyian understanding but also based on regulation theory. We distinguish between three types of transformation: incremental adaptation of the current institutional systems, institutional change in favour of a new 'green' phase of capitalism, and a post-capitalist great transformation that implies a profound structural change of the mode of production and living.

KEYWORDS

Ecological crisis; nature as fictitious commodity; imperial mode of living; social-ecological transformation; Karl Polanyi; regulation theory

1. Introduction

Acknowledging the failures of incremental policies related to sustainable development and ecological modernization, the terms 'transformation', 'social-ecological transformation' or 'great transformation' have gained importance over the last few years. However, even if there are sometimes references to Karl Polanyi, there is little engagement with his work and more recent contributions that follow him.

It seems that discussions about transformation have a similar function as those around sustainable development had in the 1990s, putting the ecological crisis into a larger context, uniting different fields of thinking and action against business-as-usual strategies and providing a positive but benign message. However, the context has changed dramatically from the beginning of the era of sustainability concerns. The deepening of the ecological crisis during the last 25 years, the complexity and far-reaching consequences of the resulting problems, as well as the urgent need to act, are now broadly acknowledged in the transformation debate (Haberl, Fischer-Kowalski, Krausmann, Martinez-Alier, & Winiwarter, 2011; Intergovernmental Panel on Climate Change, 2018; Leach et al., 2012; Rockström et al., 2009; Steffen, Broadgate, Deutsch, Gaffney, & Ludwig, 2015).

In this paper, we aim to address and assess the scholarly and political-strategic debate on social-ecological transformation from a Polanyian perspective (Polanyi, 1922/2016, 1944/2001, 1947). We argue that Polanyi's understanding of the historical great transformation towards a 'market society' (i.e. liberal capitalism) in the nineteenth century, which at the same time causes the comprehensive collapse of civilization in the 1930s, highlights the complex and highly problematic structural dynamics often ignored in most publications on social-ecological transformation. These include the ongoing expansion of the unsustainable production and consumption of commodities and the accelerated use of resources at a global scale, a focus on economic growth at almost any cost and fierce world market competition, the development model of resource extractivism in Latin America and elsewhere and 'brown' industrialization in China, as well as rather weak sustainability politics and tendencies towards authoritarian regimes in Europe and elsewhere.

We proceed as follows: We outline a few crucial aspects of key contributions on social-ecological transformation, starting with some statements from the official political domain. We do not claim, however, to provide a comprehensive review of the transformation debate within social sciences.² Instead, we argue that a 'new critical orthodoxy' has emerged that trusts in existing institutions and dominates the debate, while radical approaches are sidelined that critically question these institutions as well as the underlying relations of social forces and that consider the structural root causes of the problems. Looking through such a 'radical lens', we first intend to scrutinize the main challenges of the concept 'social-ecological transformation' as an analytical tool as well as a strategic guiding principle for political action (Section 2). Secondly, we intend to enrich and sharpen the concept of social-ecological transformation at the theoretical level with Polanyi's understanding of a great transformation and his insistence that capitalism treats nature as a commodity, thereby threatening to undermine its own reproduction. Against the background of regulation theory - that will be introduced below - we distinguish three types of transformation (Section 3).³ In a third step, these theoretical reflections will be utilized for a better understanding of the current ecological crisis as a crucial element of the more comprehensive crisis dynamics of capitalism (Section 4) and prospects of post-capitalist socialecological transformations and respective societal nature relations (Section 5). We conclude with a short discussion of the limits of a Polanyian approach to social-ecological transformation (Section 6).

2. Social-ecological transformation: a new critical orthodoxy and its shortcomings

In recent years, a series of political reports as well as academic and strategy papers have addressed the multiple and aggravating crises of capitalist societies: climate change, loss of biodiversity, the economic crisis, rising inequality within many societies, the crisis of democracy, the tensions in international policy-making (EU, 2011; UNEP, 2011; Wissenschaftlicher Beirat der Bundesregierung Globale Umweltveränderungen [WBGU], 2011; see the review articles cited in footnote 3). Most of these publications agree that the socio-environmental unsustainability of current societies is key to understanding many crisis phenomena and stress the urgent need for (social-ecological) transformation. As a consent among the publications on social-ecological transformation we can detect 'a questioning of the assumptions, beliefs, values, commitments, loyalties and interests that have created structures, systems and behaviours that contribute to anthropogenic climate change, social vulnerability and other environmental problems in the first place' (O'Brien, 2012, p. 668). And despite all differences, contributions to social-ecological transformation go beyond business-as-usual strategies to stabilize 'brown' capitalism (Brand & Wissen, 2018; Scoones, Newell, & Leach, 2015).⁴

However, within this field, epistemic and political power relations exist by excluding or ignoring more radical approaches that question dominant institutions (such as the market and the state) and

logics (such as capitalist growth). The danger posed by over-accumulated capital looking for profitable investment, for example, is hardly addressed. The same applies to the threat presented by the further commodification of nature to which we will come back below.

A prominent case in point is the report World in Transition, published by the German Advisory Council on Global Change, which uses the term 'great transformation' in the title of the original German version with explicit reference to Polanyi but without referring to his approach and conceptual tools in the report itself (WBGU, 2011). Furthermore, social-ecological transformation is referred to in flagship reports by international institutions and think tanks (New Economics Foundation, 2010; United Nations Department of Economic and Social Affairs, 2011; World Business Council on Sustainable Development, 2010). More recently, the Wuppertal Institute on Environment, Climate and Energy published a study that prominently places the term transformation in its title (Schneidewind, 2018). Not least, the political importance of the term was also emphasized in September 2015 when the governments in the United Nations agreed on the Sustainable Development Goals (SDGs) and published their ambitious aims under the header 'Transforming our World' (United Nations, 2015).

Most of these contributions reflect a kind of discomfort with the functioning of established institutions like the Framework Convention on Climate Change (FCCC), but also with the underlying economic conditions. For instance, in 2011 the United Nations Environment Programme (UNEP) issued a comprehensive report in which it identified a 'widespread disillusionment with our prevailing economic paradigm, a sense of fatigue emanating from the many concurrent crises and market failures experienced during the very first decade of the new millennium, including especially the financial and economic crisis of 2008. But at the same time, we have seen increasing evidence of a way forward, a new economic paradigm - one in which material wealth is not delivered perforce at the expense of growing environmental risks, ecological scarcities and social disparities' (UNEP, 2011, p. 1). However, the discomfort usually does not result in a more radical analysis and critique of existing power relations and their institutional manifestations.

This applies also to influential parts of the academic debate, a prominent example of which is the concept of transition research and management (Geels & Schot, 2007; Kemp, Loorbach, & Rotmans, 2007; Markard, Raven, & Truffer, 2012). Here, social-ecological transformation, or, in the concept's own terminology, sustainability transitions, are conceptualized as driven by the interplay of changes on various societal levels, namely innovative niches, institutional configurations ('regimes'), and the overall social, political, economic, and cultural setting ('landscapes'). Without doubt this approach has deepened our understanding of transformations in sectors like energy and agriculture; it has highlighted the complexity of transformations that balks at state-centred top-down strategies and instead requires more inclusive governance approaches; and more recently it has also addressed issues of power for whose neglect it had been criticized in the past (see Köhler et al., 2019 for an overview). However, a systematic problem continues: Institutions, governance processes and drivers of change have hardly been analysed from the perspective of a critical theory of the state and of the capitalist society. Consequently, the crucial question of how to deal with the structural selectivities of institutions in capitalist societies that prevent more radical interests and concepts from being heard in transition processes at all, and how to foster concrete alternatives to the logics of competition and growth, still remains open (see also Brand & Wissen, 2017).

The academic and political-strategic approaches to social-ecological transformation sketched so far and the lines of thought there are based on can be called a 'new critical orthodoxy' (Brand, 2016b) – orthós being Greek for 'correct', and dóxa meaning 'opinion' or 'belief' – because its rationale consists of admitting the urgency of far-reaching problems and a deep ecological crisis and at the same time building on the existing institutions and dominant capitalist dynamics as a means and framework for solving the problems and overcoming the crisis phenomena. Four core features of the 'new critical orthodoxy' can be discerned: First, the common denominator of most papers and articles is that economic growth is either hardly problematized or considered desirable, necessary and able to be reconciled with the environment. Particularly studies from international organizations show a widely shared belief is that comprehensive win-win situations can be created (European Commission, 2010; OECD, 2011; UNEP, 2011; but also WBGU, 2011). While at an abstract level, social-ecological transformation is often understood as 'fundamental shift' (see above), when it comes to a more concrete and politically prescriptive level, such a transformation is considered possible without fundamentally changing the mechanisms according to which capitalist societies function, in particular economic competition and growth. Instead, these mechanisms are viewed as potential drivers of change, if only the political framework conditions were shaped in favour of green capital factions and green consumers.

Secondly, there seems to be a firm trust in the existing political and economic institutions and elites, which are believed to be both able and willing to steer the process of transformation. For instance, many contributions assume that the state and its policymakers must be interested in handling collective problems, and hence in creating general welfare. A typical example is the above cited WBGU report (2011), which, although questioning the neoliberal belief in 'the market', argues that a 'formative state' ('gestaltender Staat') should deal with the problems. There is hardly any reference to the social form of the state as an institutionalization of power relations that does not only limit its ability of coping with socially and environmentally destructive dynamics but also brings it to play a constitutive role in sustaining them.⁵

Thirdly, most analyses of and strategies for social-ecological transformation hardly question the fact that neoliberal open-market policies and fierce competition have led to a further commodification of nature around the world (Castree, 2010). China's economic 'miracle' is based on the commodification of labour power, land and nature, and in most Latin American and African countries the new/old strategy of resource extractivism prevails (Huan, 2008; Lang & Mokrani, 2013; Svampa, 2015, 2019; Tilzey, 2019). This seems to be the only viable development strategy capable of alleviating poverty. And it is the flip side of social-ecological transformation in some parts of the world, since the latter requires scarce resources like rare-earth metals for green high-tech products – which mostly come from the countries of the global South.

Fourthly, the analyses and strategies of critically-orthodox versions of social-ecological transformation do not raise the problem of the Western model of production becoming universal through neoliberal globalization. We have analysed this model, showing that it implies an 'imperial mode of living' (Brand & Wissen, 2018; see Section 6 of this article). The logic of globalized liberal markets is deeply inscribed into everyday practices in which access to cheap and often unsustainably produced commodities and labour power are normalized. Currently, this logic is becoming universal among the upper and middle classes of economically fast growing semi-peripheral countries. The social relations underlying the imperial mode of living, and possible ways for overcoming them, have been insufficiently reflected in the reports cited above.

To sum up, the insights into the profound nature of the crises do not lead to radical solutions, i.e. proposals to deal with the causes as they are rooted in capitalist forms of societalization. Instead, the tension between radical diagnosis and rather incremental political strategies is related to an obvious assumption - implicit or even explicit - that transformation processes can be better initiated and amplified with and within the current systems of political, economic and cultural institutions, dominant actors and related rationales. The 'paradoxical relationship between environmental apocalyptic thought on the one hand, and institutional status quo on the other' that Lövbrand et al. (2015, p. 214) see in the discourse on the 'Anthropocene' is thus also a crucial feature of many publications on social-ecological transformation.

3. Understanding social-ecological transformations with Polanyi and regulation theory

We argue that a Polanyian approach to capitalist dynamics and societal nature relations helps us to sharpen our analytical understanding of the ecological crisis and the strategic challenges of a socialecological transformations (see footnote 2 why we use the term in plural). Our aim is to show that a Polanyian approach goes far beyond the semantic reference to the *Great Transformation* of some contributions to the 'new critical orthodoxy' of social-ecological transformation.

Furthermore, we suggest to amend Polanyi's concept of a Great Transformation by other approaches, particularly by regulation theory which seems to be particularly useful in this respect (Aglietta, 1979; Atzmüller et al., 2013; Jessop & Sum, 2006; Lipietz, 1988). On the one hand, the regulation approach (implicitly) draws on a fundamental insight by Polanyi, namely that the capital relation is constitutively incomplete, it cannot 'achieve self-closure, i.e. [...] reproduce itself wholly through the value form' (Jessop, 2000, p. 235) and thus needs extra-economic institutions to contain its self-destructive tendencies. On the other hand, regulation theory goes beyond Polanyi, insofar as it does not mainly focus the commodification of what Polanyi call fictitious commodities,⁶ processes of dis-embedding and struggles over certain forms of re-embedding that are directed against the 'Utopian experiment of a selfregulating market' (Polanyi, 1944/2001, p. 258). Instead, it addresses the complex and temporary institutional stabilization of inherently contradictory social relations. Moreover, regulation theory distinguishes different modes of capitalist development in space and time, a conceptual innovation important for an adequate understanding of different forms of transformation that might emerge from a crisis of a mode of development.

When Polanyi wrote the *Great Transformation*, he was convinced that the civilizational crisis of capitalism, particularly fascism, is not likely to be solved within liberal capitalism (Brie & Thomasberger, 2018; Dale, 2016; Polanyi, 1944/2001, pp. 245, 267). Unlike regulation theory, he could not analyse ex post how this crisis was processed after World War II with the emergence of Fordism, decolonization and some remarkable advances within societies of the global South as well as a relatively stable international order of 'embedded liberalism' (Ruggie, 1982) under the leadership of the United States, the rule of the Soviet Union in its sphere and some independent countries, such as China or India.

In line with regulation theory, we suggest to distinguish three types of transformation. First, incremental transformations in and after 'minor crises' that accommodate society and economy. Capitalist societies transform themselves constantly and from time to time through crises. Permanent transformation is the very mode of reproduction of capitalism. It is its business-as-usual mode that distinguishes it from its predecessors. As Marx and Engels put it famously in the Communist Manifesto: 'The bourgeoisie cannot exist without constantly revolutionizing the instruments of production, and thereby the relations of production, and with them the whole relations of society'. (Marx & Engels, 1998, p. 243) Or in regulationist terms: crises take place under conditions of an existing 'mode of development'. This may mean that some economic branches shrink or even disappear while others emerge and develop more or less rapidly. But the overall institutional and discursive logics as well as power relations remain in place.

In contrast to a minor crisis and the resulting incremental transformation, a 'great crisis' (Aglietta, 1979; Boyer, 1990) leads to a more profound restructuring of the capitalist mode of production, the modes of living, technologies, forms of the state, dominant understandings of a good - or at least functioning – society, etc. This is the *second* type of transformation to be considered here, leading to a *new* phase of capitalism or mode of development. Nowadays, it can be argued that strategies of the new critical orthodoxy of social-ecological transformation might lead to a 'green capitalism'. Fierce struggles over hegemony take place in the course of such a crisis, and anti- and post-capitalist proposals and forces might even gain relevance. They are however contained or transformed into moments of modernization so that the basic structures of capitalism, although under new institutional conditions and based on a transformed regime of accumulation, remain intact. Antonio Gramsci has called this a 'passive revolution' (1971, pp. 104-106), i.e. a restructuring of the power bloc and a transformation from above. Not necessarily but often this goes hand in hand with what Gramsci has called 'trasformismo', a co-optation and integration of oppositional forces under the hegemony of the dominant capital fractions (cf. Morton, 2018; Newell, 2019; on the relationship between Polanyi's transformation and Gramsci's trasformismo). Dale (2016, p. 97) argues that Polanyi was aware that counter-movements often may lead to an amelioration of capitalism through certain forms of regulation.

A famous example of this kind of transformation occurred when the liberal capitalism of the 19th and early twentieth century - brilliantly described by Polanyi - in Western industrialized countries gave way to a new mode of development called Fordism in the 1930s - a process that was driven by social struggles (such as the ones that resulted in the 'New Deal' in the United States) as well as by the two world wars (Aglietta, 1979; Lipietz, 1987). Some decades later, the crisis of the 1970s led to a 'post-Fordist' restructuring of capitalism: in many countries and at the international level more or less successful neoliberal strategies led to a restructuring of the international division of labour, enabled new technologies and transformed the welfare state into a workfare state. This went hand in hand with changing power relations, i.e. the weakening of workers' power and the strengthening of capital, particularly of financial capital.

One could read most contributions to social-ecological transformation as a strategic claim to overcome fossil fuel-based capitalism (i.e. to de-carbonize the economy), in order to cope with the social-ecological contradictions as they have been intensified by neoliberalism. This does not question the capitalist mode of production and living and the growth and accumulation imperative that structures societal relations: class, gender, race, subjectivities, the state, the international division of labour and particularly the dominant commodified societal nature relations. It could, however, work as a countermovement to the self-destructive tendencies of neoliberal capitalism and industrial capitalism in general, temporarily containing the ecological crisis. However, under the dominant capitalist mode of production this would occur in a spatially and socially selective manner and create new forms of ecological contradictions, e.g. regarding the extraction and possible scarcity of the metals needed to sustain the growth of a 'green' economy. And it will raise the question whether a de-carbonized, biomass-based economy is possible in face of the limits of biomass production (on the bioenergy potential see e.g. Erb, Haberl, & Plutzar, 2012; Haberl et al., 2013).

As we shall see below, even this moderate attempt at stabilizing capitalism is strongly contested and far from being unanimously supported by states and relevant economic actors. Instead, it competes with an authoritarian mode of neoliberalism, which denies rather than addresses the ecological crisis and tries to exclusively protect a socially and ecologically destructive mode of production and living from the effects of the crisis. It intends to achieve this by sealing off national territories from refugee movements and securing access to increasingly scarce resources via political pressure or even military violence.

The third type of transformation aims at a great transformation beyond the capitalist mode of production. Polanyi's important point was that liberal capitalism of the nineteenth century led to a crisis or even collapse of civilization in the 1930s. We see historical parallels in the fact that capitalist globalization since the 1970s has dramatically escalated tendencies that may lead again to such a collapse, particularly in ecological, but also in cultural and political, terms (cf. Welzer, 2011). If these tendencies are contained, and integrated into a project of green-capitalist modernization (second type of transformation), or if they challenge the very capitalist social formations, in which they originate, and pave the way into a post-capitalist society (third type of transformation), is a question of social struggles (Bailey, 2019 speaks here of 'extra-capitalist impulses'). It depends, and this also points to the strategic implication of a radical understanding of social-ecological transformations, on social practices and forces that strive for modes of production and living beyond an authoritarian 'brown' or a more or less regulated 'green' capitalism. We elaborate on that point below.

It is important to note that regulation theory's typology of crises and transformations is not completely in line with Polanyi's approach. On the one hand, Polanyi's *Great Transformation* aligns with the institutional, technological and economic restructuring that resulted from a great crisis of capitalism, i.e. the second type of transformation in regulation theory terms. Thus, both Polanyi and regulation theory would agree in their assessment of the capitalist crisis culminating in 1929 and the years that follow. They would however differ regarding the crisis of Fordism in the 1970s. For regulation theory, the latter is another great crisis of capitalism that, like the one in the 1930s. It gave way to major changes in the industrial paradigm, the regime of accumulation and the institutional forms through which social contradictions are processed. From a Polanyian perspective, however, the differences between the two crises would be stressed. The crisis of the 1930s was driven by counter-movements that politicized the socially destructive tendencies of the preceding wave of marketization (either progressively, as did the labour movement in the U.S., or in a reactionary way, as did the Nazis in Germany). This resulted in a stronger regulation of market forces, particularly with regard to the wage relation. By contrast, the crisis of the 1970s was driven by the movement of neoliberal forces that increasingly gained influence in academia, the media and state apparatuses, such as central banks, and managed to politicize the contradictions of an embedded capitalism. It resulted in a strengthening of market forces and a new wave of commodification on a global scale since the second half of the 1970s (Harvey, 2006; Hirsch, 1997).¹⁰

For Polanyi, a great transformation may therefore indeed emerge out of a great crisis in the sense of regulation theory. For him, the crisis of liberal capitalism follows from the contradictions that have been intensified by a preceding wave of marketization. Furthermore, a great transformation in the understanding of Polanyi may either take the form of a major restructuring of the mode of regulation and the regime of accumulation, i.e. a transformation of capitalism (type 2 of regulation theory) or mark the beginning of a process that ends in completely different forms of societalization, i.e. a transformation beyond capitalism (type 3 of regulation theory). It is here where we see the use value of combining both approaches: Regulation theory offers the categories that help us to define the character of a crisis according to the scope of transformations that result from it. It is not so much concerned with the exhaustion of social and natural resources whose politicization by countermovements may cause the crisis and the resulting processes of transformation. The latter is what Polanyi turns our attention to: That the potential of a transformation beyond capitalism is eventually actualized and not, as in the second type of crisis, contained, depends on the resistance against the commodification of nature and labour power by countermovements in which a wave of marketization may finally result.

4. The ecological crisis as a part of a great crisis of capitalism

Our considerations in the preceding section lead us to a further theoretical insight of Polanyi that is largely neglected in most contributions to social-ecological transformation is his very understanding of modern societies and the limits of liberal ideologies, particularly that 'the concept of a self-regulating market was Utopian' (Castree, 2010, p. 1739; Polanyi, 1944/2001, pp. 148, 157). For Polanyi, the utopian liberal ideologies led to severe crises and the emergence of the social forces of the 'protective countermovement' that struggled for certain forms of re-embedding by restricting the overuse of fictitious commodities (Polanyi 1944/2001: introduction of the GT and particularly chapters 11, 12). Polanyi's understanding of the dynamic development of a 'market society' in the nineteenth century was intrinsically linked to the question of land. Today, we should consider land to include a more comprehensive understanding of nature, soil and ecosystems (cf. Adaman, Devine, & Ozkaynak, 2003; Castree, 2010, p. 1738; Prudham, 2013, p. 1578). Concerning the bio-physical foundations of social life and the tendency to commodify them, Polanyi stated: 'What we call land is an element of nature inextricably interwoven with man's institutions. To isolate it and form a market for it was perhaps the weirdest of all the undertakings of our ancestors' (Polanyi, 1944/2001, p. 187). For Polanyi, land is, in addition to labour and money, one of the fictitious commodities - fictitious in the sense that it is not produced for sale and cannot be reproduced by capital: biological evolution is an enormously complex and contingent process and bio-physical processes work on their own (Polanyi 1944/2001, pp. 45-69), or, as O'Connor (1998, p. 147) has put it, 'there is no law of value at work making land, soil, water, and other natural elements available to capital in the requisite quantities and qualities and at the right place and time'. In this sense, nature is not a commodity. However, in societies with a dominant capitalist mode of production, nature is treated as a commodity with an exchange value dominating its appropriation whose realization on the market contributes to an unlimited capital accumulation and does not respected any reproductive limits.

Referring to the example of England, Polanyi distinguishes three 'stages in the subjection of the surface of the planet to the needs of an industrial society' (Polanyi, 1944/2001, p. 188). First, land was isolated from its communal or feudal usage - as the direct producers were liberated from personal dependency but also from their direct means of (re-)production and became wage labourers. Private property of land and the right to exchange it became a crucial element of individual freedom. Secondly, the basic provision of most people's means of living became market-dependent. Until the second half of the eighteenth century, the means of reproduction were largely produced for one's own use or for exchange on local markets. Later, they were increasingly transported and sold over ever longer distances for the growing population in industrial cities who had nothing to sell but its labour power. This dynamic was, thirdly, repeated at a global scale. Particularly through free trade, 'the industrial-agricultural division of labour was applied to the planet' (Polanyi, 1944/ 2001, p. 190). The industrial centres imported mineral and metal resources as well as agrarian products for individual and 'productive' (i.e. industrial) consumption.

This commodification of land – or rather: of nature – is one of the core drivers of capitalist globalization as well as of the ever more severe ecological crisis (see for the commodification of genetic resources and related conflicts: Brand & Görg, 2008; Brand, Görg, Hirsch, & Wissen, 2008). The central contradiction of this commodification lies in the fact that nature is seen as an unlimited resource for societies and, precisely for that reason, endangered or even destroyed. To treat nature as a commodity implies getting maximum economic revenue from it. The materiality of nature – its 'un-produced' character (McCarthy & Prudham, 2004, p. 281) in the sense of 'its own autonomous "laws" and developmental principles' (O'Connor, 1998, p. 147) - is subordinated to this aim with the result of eroding soil, destroying small-scale farming or fishing, fomenting climate change etc. That process can progress to the point that the reproduction of nature or certain elements of it is threatened. This is a basic dynamic of what Polanyi has called 'market society', i.e. liberal capitalism. In neoliberalism it has even captured the strategies to cope with the environmental crisis:

a broad front encompassing, variously, REDD (reducing emissions from deforestation and degradation); entrepreneurial conservation; payments for ecosystem services schemes; ecotourism projects; privatization of common and public resources from genes to water to fisheries; and of course the uneven development of carbon markets signifies how deeply capitalism has been ostensibly greened, but also how environmental policy increasingly embraces rather than resists enclosure and commodification. (Prudham, 2013, p. 1570; see also Wanner, 2015)

This has to be considered in order to understand the causes of the current ecological crisis, which is about to threaten the reproduction not only of nature but also of civilization.

5. Strategies of a great transformation: post-capitalist societal nature relations

In the last chapter of The Great Transformation, Polanyi states that '[a]fter a century of blind "improvement" man is restoring his "habitation". If industrialism is not to extinguish the race, it must be subordinated to the requirements of man's nature' (Polanyi, 1944/2001, p. 257). Polanyi argued for 'the shifting of industrial civilization onto a new nonmarketing basis' (Polanyi, 1944/ 2001, p. 258), which can be read as overcoming the imperatives of the capitalist mode of production, i.e. the third type of transformation we introduced above. At the same time, Polanyi was aware that dealing with the crisis of civilization is a highly contested process. The transformation process 'may happen in a great variety of ways, democratic and aristocratic, constitutionalist and authoritarian' (Polanyi, 1944/2001, p. 259).

More specifically, for perspectives of a social-ecological transformation this means that in addition to authoritarian tendencies and the prevailing predominance of 'brown industries', there is another danger: that the corridor of both top-down and bottom-up alternatives tends to be systematically narrowed to a form of capitalist modernization and incremental change (type 1 transformation). But even those approaches or strategies that opt for a greening of the economy (i.e. radical decarbonisation of the economy and a bio-economy beyond fossil fuels), if capable of ushering in a new accumulation dynamic, remain within a green-capitalist framework (i.e. type 2 transformation) and thus do not question the very dynamics of the commodification of nature.

Polanyi believed that social and ecological problems of his time could not be solved in a 'market society'. In this sense, he was not just a theorist of the 'double movement' and a social reformer but a socialist who experienced the Red Vienna of the 1920s and socialist experiments in Eastern Europe at that time (Bockman, 2018; Brie & Thomasberger, 2018, pp. 13-14).

Moreover, for Polanyi, a socialist society would abolish the private ownership of the means of production and the state (Polanyi, 1922/2016, p. 406). He suggested a complete reorganization of the economy: decentralized and with forms of direct participation of workers, citizens and consumers securing and enhancing freedom. 'Therefore, in Polanyi's vision it is the task of socialists to defend freedom and human solidarity by subordinating the economy to a democratic society of plural forces' (Brie & Thomasberger, 2018, p. 12; Dale, 2016).

Polanyi suggested two things in particular to counter the dynamics of the commodification of nature mentioned above: decommodification of nature and - in our words - democratization of societal nature relations.

In his Great Transformation, Polanyi does not use the term 'decommodification' explicitly. However, he clearly argues that the commodification of land (in addition to labour power and money) is the key driver of the crisis of civilization (Polanyi, 1944/2001, chapter 6, also pp. 137, 167). This suggests that from a Polanyian perspective on social-ecological transformation, probably the most important issue is the decommodification of nature. This does not merly mean the protection or conservation of nature - as many environmental discourses suggest - but very different forms of the societal appropriation of nature to fulfil human and societal needs, i.e. different forms of organizing alimentation and clothing, housing and infrastructure, mobility and communication etc.

Such a transformation requires rules and norms to not overuse nature and to block its commodification (Ostrom, 1990). These rules and norms need to be achieved through social struggles (see also Halperin's, 2018 critique of Polanyi). And indeed, throughout history, the commodification of nature, and particularly its negative consequences, have led to countermovements. Polanyi saw that these movements were often politically reactionary, for instance, when the large-scale land owners resisted the 'mobilization of the land' (Polanyi, 1944/2001, p. 192) and fought for protectionism in the agrarian sector of a country. On the other hand, progressive countermovements struggled for land reforms in order to withdraw land from the liberal market logic as well as from the reactionary rule of large-scale land owners. They claimed the democratic control of infrastructure, such as systems for providing water and energy, which often have been subject to privatization and commodification. These experiences of communing (Bollier & Helfrich, 2019), or public control, contribute to the de-commodification of nature and, therefore, anticipate environmentally sustainable social and economic forms beyond capitalism (on Polanyi and commoning cf. Mendell, 2018; on the international dimension of alternatives within a Polanyian framework, cf. Patomäki, 2014).

Polanyi saw the need for economic planning and coordination. But he also saw the tendencies of bureaucratization. Therefore, an important principle is that planning does not take place at the expense of freedom and that the corresponding institutions are subject to democratic control.

This brings us to the second dimension of a radical social-ecological transformation. In line with Polanyi we can also argue that the question of a democratic shaping of society and of societal nature relations is crucial. Of particular importance is the securing of individual freedom, which is linked to questions of democracy. For instance, Polanyi argues that 'the problem of industry would resolve itself through the planned intervention of the producers and consumers themselves. Such conscious and responsible action is, indeed, one of the embodiments of freedom in a complex society' (Polanyi, 1947, p. 117). Today, a democratization of societal nature relations would require to address many inequalities and injustices involved in global climate, biodiversity and resource policy and the power relations underlying them - and thus such a democratization of societal nature relations is challenging. Moreover, as mentioned by the fictitious character of land and nature, it must respect the reproductive logic of ecosystems and other parts of nature not fully under control neither by the logic of the market nor by scientific rationality - and thus exceed the idea of a mastery of nature, the basic ideology of Western tradition since centuries (Görg, 2011; Horkheimer & Adorno, 1947/2002).

The claims for a decommodification of nature and a democratization of societal nature relations emerge out of crises and contradictions and the inability of existing institutions to deal with them (Pichler, Brand, & Görg, 2018). The specific politicization of crises and contradictions requires social actors that claim and propose alternatives to further commodification as well as the emergence of everyday practices that contribute to such a decommodification and democratization.

6. Outlook: further developing a Polanyian understanding of social-ecological transformation

To apply and further develop Polanyian thinking on the ecological crisis, societal nature relations and a radical social-ecological transformation, we propose certain aspects that ought to be considered in more detail.

First, in line with Polanyi, the commodification of nature and the conversion of many elements of nature into (fictitious) commodities are major drivers of the dynamics of capitalism that result in ecological and social-economic crises. However, the causes of the ecological crisis are much broader than the capital-driven commodification of nature. They also encompass the very perception of nature and the discourses about it, the subjectivities and the everyday practices of people. We therefore propose to understand the social-ecological crisis against the background of an 'imperial mode of living' which actually is an 'imperial mode of production and living' and also implies labour relations (Brand & Wissen, 2018). This concept helps us to better understand both the persistence and spread of unsustainable patterns of production and consumption that deepen the crisis and the increasingly contradictory character of these patterns that results from their very deepening and spread. These patterns are based on an – in principle – unlimited appropriation of the resources and labour power of both the global North and the global South, and of a disproportionate claim to global sinks (such as forests and oceans, in the case of CO₂). A core mechanism of the functioning of the imperial mode of living is that worldwide relationships of domination, power and exploitation remain intact and at the same time invisible, i.e. that they are in a way normalized within Northern societies.

Secondly: Despite many tangible successes of environmental policies, the state at all spatial scales largely secures dominant and destructive forms of the appropriation of nature. Therefore, the role of the state needs to be reflected more carefully in Polanyian approaches (Brand & Görg, 2001). The state is not just an institution or social actor that delivers the rules of the game but it is a social relation that in its very structure is linked to the capitalist economy, to the respective power relations and to the everyday life of people (Poulantzas, 1978).

Finally, many current conflicts about existing societal nature relations and entry points for socialecological transformations take place in very specific forms and often at local levels (for a typology see Dietz & Engels, 2018; for the case of food regimes, see Tilzey, 2018). Therefore, we see a certain restriction to the metaphor of the 'double movement' in the sense that in such 'big concepts' the specific conflicts tend to be subsumed under an overarching logic. However, these conflicts are diverse, contradictory and contingent, and need to be carefully analysed and considered in political struggles. As Burawoy (2013, p. 38) puts it, one has to go beyond 'Polanyi's homogenizing history of capitalism as a singular wave of marketization giving way to a singular countermovement'.

In this sense, Polanyi offers us many elements for understanding the deep ecological crisis as a crisis of capitalist societal nature relations (and not one of an abstract 'humankind') and for seeing certain limits to many approaches to social-ecological transformation - particularly the blindness regarding commodification dynamics. However, we should also think beyond Polanyi to fully grasp the crisis dynamics and existing, as well as potential, alternatives.

Notes

- 1. We use the term 'social-ecological transformation' in singular when referring to the scholarly debate and an intended project of societal change whereas the use of the concept in plural indicates historical or ongoing societal processes.
- 2. See the reviews of O'Brien (2012), Brie (2014), Nalau and Handmer (2015), Scoones et al. (2015), Stirling (2015), Brand (2016a), Brand and Wissen (2017), Görg et al. (2017), Blythe et al. (2018), and Blühdorn, Butzlaff, Deflorian, and Hausknost (2018). In the debate around the term social-ecological transformation it is difficult to make a clear-cut distinction between policy papers and more scientific and analyti-
- 3. One reviewer suggested to compare Polanyian and Marxist approaches to transformation. While this is a necessary and highly fruitful endeavour, it goes beyond the scope of this article that focuses more on social-ecological transformation than on a comparison of theories.



- 4. An ongoing challenge is that the contributions around social-ecological transformation have always analytical content (in order to understand the current situation) as well as political-strategic ones, i.e. how to change this situation. Often, there is a 'strategic-political bias' in the sense that the obstacles to transformation seem to be a bit downplayed in order to present the own solutions in a more feasible tone (cf. Brand, 2016a, 2016b).
- 5. The role of the state in the emission scandal of the German automotive industry is an outstanding example for this. The German government mostly protects the unsustainable and profit-driven interests of the German automotive industry or merely aims at an ecological transformation of the latter in the direction of electro-automobility. Due to the crucial role of the automotive industry for the German export model, the interests of car producers and the metal workers' trade union are institutionalized in a way that a state-led transformation strategy is still hard to imagine (Krull, 2018; Wissen, in press).
- 6. I.e. objects which are treated as commodities even if they have not been produced as such and their very nature contradicts their treatment as commodities (see below).
- 7. See Altvater (1993, chapter 1) for a similar typology.
- 8. We would not argue, however, that a green capitalism would resolve the crises in the societal relations with nature (see for a critique e.g. Brand & Wissen, 2018; Wallis, 2010). We assume that a green capitalism also includes an externalization of risks and environmental degradations in space and time. However, similar to post-war Fordism it may lead to a more stable societal phase for some parts of the world but at the expense of others and of future generations.
- 9. Adam Morton refers to Neo-Gramscian International Political Economy which has many parallels to regulation theory; see also Tilzey (2018).
- 10. It was also driven by social movements that criticized an authoritarian welfare state, a confining educational system, patriarchal gender relations and destructive societal nature relations. However, as Boltanski and Chiapello (1999/2005) have shown, the neoliberal critique managed to absorb central notions of the critique artiste by social movements and to partially redirect these into a new wave of marketization.

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Disclosure statement

No potential conflict of interest was reported by the authors.

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