

# **How to get out of the multiple crisis?**

## **Contours of a critical theory of social-ecological transformation**

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**Abstract:** The concept of transformation has become a buzzword within the last few years. This has to do, first, with the ever broader recognition of the profound character of the environmental crisis, secondly, with increasingly obvious limits to existing forms of (global) environmental governance, thirdly, with the emergence of other dimensions of the crisis since 2008 and, fourthly, with intensified debates about required profound social change, especially of societal nature relations. However, the term transformation itself is contested. It largely depends on theoretical assumptions as well as the plausibility and applicability of the arguments which are made. In this paper, a historical-materialist approach to social-ecological transformation is outlined by referring to a theoretically sophisticated understanding of “subject(s)” of transformation as well as the “object(s)” of what is to be transformed. Theoretical concepts like the capitalist mode of production, regulation and hegemony, a critical understanding of the state and governance as well as the term societal nature relations are key. Such a perspective contributes to a more sophisticated understanding of the obstacles and requirements of real-world transformation. Finally, the argument has implications for visions and strategies, i.e. an emancipatory and democratic shaping of social relations and societal nature relations.

### **1. Introduction**

A few years ago, the prominent Millennium Ecosystem Assessment gave an overview of the most pressing ecological problems. Then, the crucial concept for understanding global environmental change was that of direct and indirect *drivers*, i.e. “any natural or human-induced factor that directly or indirectly causes a change in an ecosystem” (MEA, 2005, see also GEO 4, 2007 or TEEB, 2008). Concepts like transformation were not at all used in the diagnosis but rather that of (global) environmental change (Adger/Brown, 2010).

A few years later the world changed drastically and, with it, this interpretation. The concept of transformation is the rising star in social ecological debates. Flagship reports of international institutions and think tanks refer to the concept (WBCSD, 2010, NEF, 2010, DESA, 2011, WBGU, 2011). Research programmes for social sciences are oriented under this header (JPI Climate, 2011, Hackmann and St. Clair, 2012, WSSR, 2013, Driessen et al., 2013).

The social scientific debate is vibrant (Raskin et al., 2010, NEF, 2010, Pelling, 2010, Haberl et al., 2011, Reißig, 2009, Westley et al., 2011, Gunderson/Folke, 2011, European Commission, 2011, O'Brien, 2012, Leach et al., 2012, Park et al., 2012, Brand, 2012, Muradian et al., 2012, Kates, 2012, Brand/Brunnengräber et al., 2013, Klein, 2013, Brie, 2014).<sup>1</sup>

I argue in this paper that the burgeoning use of the term “transformation” mainly relates to the increasing acknowledgement that the crisis has multiple characteristics, and there are limits to global environmental governance (Conca et al., 2008, Driessen et al., 2013, Newell, 2012, Brand/Wissen, 2013). There is then an increasing insight that to deal, at least with the ecological dimensions of the multiple crisis, requires profound changes (NEF, 2010, WSSR, 2013). The International Resource Panel of the UN Environmental Programme (UNEP) impressively describes the enormous growth in the use of the resources for construction materials, fossil fuels, biomass, and minerals during the 20<sup>th</sup> century (UNEP, 2011). Moreover, the interlinkages between climate change, biodiversity erosion, ocean acidification, changes in land use, and other ecological dimensions are emphasised (Rockström et al., 2009). This is accompanied with insights that a problem-specific dealing with the crisis—climate change or biodiversity erosion—is over simplified. Problemadequate political approaches need to consider complex articulations and the danger of offsetting negative consequences from one field to another (e.g. to produce crops for agrofuels by fostering industrialized agriculture and the eviction of peasants from their land).

O'Brien (2012: 668) argues for appropriate climate change and adaptation policies, which imply “a questioning of the assumptions, beliefs, values, commitments, loyalties and interests that have created structures, systems and behaviors that contribute to anthropogenic climate change, social vulnerability and other environmental problems in the first place”. As Driessen et al. (2013: 1) put it, the concept ‘societal transformation’ refers not least “to alterations of society’s systemic characteristics and encompassed social, cultural, technological, political, economic and legal change.”

The debate about transformation can also be read as an attempt to better understand the positive examples and possibilities as well as unintended results of processes that lead to a more sustainable world, as well as the problems and obstacles along this path. Analyses of current and future deeply rooted changes cannot be completely separated from visionary and strategic claims as to the direction in which the world should develop.<sup>2</sup> However, there is some confusion between the rather analytical and descriptive use of the concept, on the one hand, and the more visionary and strategic one, on the other. Apparently analytical clarity is often superseded by visionary and strategic orientations. Hence, visionary and strategic claims should not be avoided (cf. section 5) but they might run the danger of downplaying the deeply inscribed socio-economic, political, cultural, and subjective social relations as well as societal nature relations that need to be transformed.

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<sup>1</sup> The debate on economically sustainable degrowth also takes place under the header of transformation; cf. Martínez Alier et al. 2010, Latouche 2010, Kerschner 2010, Kallis 2011, Paech 2012, Petridis 2013, Muraca 2013.

<sup>2</sup> Clive Spash insisted rightly not to use the term “normative” since all kinds of thinking and practice have normative groundings and that there is an inseparability of fact and value (Spash, 2012: 44). Therefore, I use the adjectives “visionary” and “(political-)strategic”.

Therefore, the concept of transformation needs theoretical clarification. I argue that a historical-materialist foundation of the term transformation is the most plausible way to understand the main driving forces of the transformation of modern societies, their structural effects and spaces of action for agents, the ways environmental concerns and other problems are recognised and where lie the potentials and problems of visions and strategies towards more sustainable societies or the world society.

Why do I refer to historical materialism? Quite often, Marxism is held responsible for thinking, strategies and practices of actual societies claiming to be putting socialism into **practice**. They typically have focused on economic productivism and a sometimes brutal development of the productive forces, on nature domination and destruction which was in many cases even worse than the appropriation of nature in the capitalist centres (Bahro, 1977, Havemann, 1980, Altvater, 1993).<sup>3</sup> However, the undogmatic form of Marxism, that is employed in this article has something else to offer. Here I am referring to Marx's theory of the capitalist mode of production, to regulation and Gramscian hegemony theory, and I combine them with critical state and governance theory and with insights from political ecology. This helps us to better understand opportunities and problems of intended or stated transformative change.

A final introductory remark: There is not one true or right definition of transformation. Concepts, especially when they become important, are more or less broad containers or epistemic terrains where different understandings come in and where a common core understanding might emerge (cf. on the concept of sustainable development, Brand, 2010). Not least, this depends on implicit or even explicit theoretical assumptions but also on cognitive interests. The validity of a concept depends on its plausibility and its applicability to make social and social ecological phenomena and problems better understood.

The paper is structured as follows: I argue that a comprehensive concept of social ecological transformation should be conceptualized more systematically the “subjects” and “objects” of transformation (section 2). This is undertaken by referring to the mentioned theoretical concepts and approaches (sections 3 and 4) and followed by a conclusion and an outlook (sections 5). I focus on these theoretical considerations and do not test the argument against recent developments, which would deal with the debates around “green growth”, “green economy”, “climate capitalism” and “green capitalism” (some brief remarks and references follow in section 5).

## **2. Prerequisites for a comprehensive concept of transformation**

The initial hypothesis of this paper claims that a historical-materialist perspective on transformation can contribute to the debate in a twofold sense. First, by conceptualising a central “subject” of the steering process, i.e., the state or governance structures and processes. Within the broader debate a common assumption is that the policymakers – and

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<sup>3</sup> Those centres developed more or less effective means to externalise some of the negative environmental consequences in space and time; an aluminium factory in the Brazil Amazon or the life of hundreds of millions of people in slums with their informalised or even slave work force are also part of capitalism

behind them governments or states - are primarily responsible for initiating and promoting processes of transformation. Here, the state and governance are considered to have an interest in handling collective problems, and hence in creating general welfare (e.g. WBGU, 2011).

I am aware that the transformation (and transition) literature has a much broader understanding of subjects of change: change agents and pioneers, for instance. The multi-level perspective focuses on niches (Geels, 2010); the transition management school looks for a “novel mode of governance for sustainable development” and respective alliances (Loorbach/Rotmans, 2010, Frantzeskaki et al., 2012, overview in Wesely et al., 2014).<sup>4</sup> Options and potentials are often seen in the drastic increase in efficiency and innovations such as technologies, production methods and the strengthening of circular flow economies, or in such societal developments as the transformation of values towards post-material value systems, or in signs of self-limitation (sufficiency).

Secondly, there exist varying determinations as to the characteristics of the societal content of the problems or crises to be addressed, i.e. the characteristics of the “object” of the transformation. At the descriptive level the global systems are overused reference objects, such as the land surface, or the deposits of natural elements, the atmosphere, or the oceans. Problems are assumed to be given and as problems of humankind; and they need to be solved by humankind. The dominant tone is a kind of naturalistic truth regime: the natural sciences are taken to be describing the character of the crisis to us (prominently, Rockström et al., 2009, UNEP, 2011, critique of “planetary boundaries” by Geden and Beck, 2014).

Another understanding of the “object” of transformation is the concept of “megatrends” such as demographic trends, the globalisation of production, trade and financial markets, resource intensive modes of production and living, urbanisation, industrialisation in countries of the Global South, increasing resource use and prices, technological progress and digitalisation (Enquete Commission, 2013: 368-377, WBGU, 2011). The assumption here is that those megatrends need to be shaped.

The multi-level perspective (Geels, 2010) focuses on stabilised lock-ins and path dependencies of existing socio-technological systems like energy, transport, housing or agro-food systems which are constituted by technologies, markets, policies, user practices and cultural meanings. This approach assumes that radical innovation emerges in niches and is pushed by dedicated actors. Innovation in niches might become relevant at the regime or even landscape level.

Against this background, a dual challenge for a critical analytical concept of transformation lies, first, in the conceptualisation of the “object of control”, i.e. of that which is to be changed in the process of social ecological transformation (the “object” is nothing tangible). Despite the prominent debate about the “Anthropocene” and the geological force of humanity (Crutzen and Stoermer, 2000, cf. Baskin, 2015), and long debates within political and social ecology, the predominant mode of thought still juxtaposes an endangered global natural system—described by science—with social systems that produce problems and

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<sup>4</sup> In this article I do not focus on the term “transition” (cf. Brand, 2012a) but at some stages of my argument I refer to relevant literature. Moreover, some studies use the term exchangeable (e.g. Raskin et al., 2010).

crises. However, society as such, its structures and driving forces, stabilising factors and crises, and its actors, with their conditions of existence and resources for action, or even constellations of actors or relations of forces, are given insufficient attention. Any sophisticated conception of society and societal nature relations is masked by such terms as “problems”, “megatrends”, or “humanity”.

The second key point lies in a theoretically informed understanding of political steering, i.e. of governance structures and processes. Critical research concerning the state and governance should be able to provide further insights here. This needs to be linked to dominant or even hegemonic social practices and rationalities, values, and discourses. Structures and processes of political steering or governance need to be understood as co-constitutive with societal processes and structures and even with society’s nature relations (e.g. Mitchell 2009 with his term “carbon democracy”). I argue that there are promising theoretical concepts that can be employed to grasp this co-constitutive character. This helps understanding of why politics remains structurally articulated with manifold and domination shaped social relations and societal nature relations and that the visionary and strategic perspective of a profound social ecological transformation needs to consider this.

A relational perspective is the *differentia specifica* for a critical analytic concept of transformation. It emphasises the power driven and domination shaped as well as hegemonic and crisis driven character of the social ecological and multiple crisis, which needs to be dealt with. For instance, also the market is considered as a historically specific social relation, i.e. as part of social relations of productions (and consumption and living) and of social power relations. Such a perspective is fruitful for not only the capitalist character of societal relations but also their patriarchal, imperial and neo-colonial ones.

### **3. Theorising social ecological transformation: theoretical concepts**

In this section I would like to introduce some theoretical categories which are key for a critical concept of transformation: modes of production, capitalist regulation, state and governance as well as hegemony. A theory that seeks to comprehend the societal and the social ecological dynamics of transformation should focus on the structured and structuring “whole” of manifold societal relations. It should be able to conceptualise their interconnections and contradictions as well as the mechanisms that create those interlinkages and society’s ability to deal with contradictions and might give such relations certain continuity over time, or fail to do so and thus generate crisis. A historical-materialist perspective has much to offer here.

Historical materialism assumes the existence of different modes of production which exist at the same time (e.g. the capitalist mode of production) and their spatial and temporal specifications (e.g. Fordism for the latter; on the concepts mode of development and mode of regulation, see below). Those modes of production—or, in a more comprehensive sense: modes of (re-)production and living—do not determine every aspect of social life and they remain contested. In his theory of modes of production, Marx pointed to the connection between the developing productive forces and the relations of production, and outlined a model of phases of historical development. According to Marx, modes of production

correspond to the “relations of production — relations which human beings enter into during the process of social life, in the creation of their social life” (Marx, 1998, ch. 51). The concept focuses on structures and processes by means of which society organises its material foundations (including its metabolism with nature), socioeconomically, politically, culturally, and subjectively. It identifies dominant societal structures and processes and their necessarily contradictory and crisis driven reproduction.

In societies under the dominance of the *capitalist* mode of production, a powerful “grammar” or logic of societal development consists of profit making, capital accumulation and the related social power of capital. Previously invested money capital needs to be increased by means of production processes which create surplus value, or by means of valorisation processes derived from the former. According to Marx, capitalism represents a social formation whose development is driven by the insatiable desire of capital to increase profits through more intensive or extensive strategies of investment. The accumulation imperative, therefore, has fundamental and far-reaching implications related to societal transformation: a first one is that “[t]he bourgeoisie cannot exist without constantly revolutionising the instruments of production, and thereby the relations of production, and with them the whole relations of society.” (Marx/Engels, 1998: 243) This goes hand in hand with capital’s tendency to turn social relations and nature into commodities and to gain dynamics through a permanent land-taking (Landnahme; Dörre et al., 2009, ch. 2 in reference to Rosa Luxemburg’s theory of capitalism, 1913/1951).

So the first point is the inherently revolutionary nature of societies dominated by the capitalist mode of production. A second consequence is the tendency of capital to create a world market (cf. Marx, 1973: 408). The extensive accumulation and the production of exchange value via commodities and competition represents the material background, against which the bourgeoisie cultivates a cosmopolitan orientation.

However, the abstract term “capitalist production” says little about the concrete and manifold societal relations, since these are historically variable and articulated with other non-capitalist modes of production such as, for instance, non-paid care work.<sup>5</sup> Capitalist development occurs unevenly, both in space and in time, and is inherently crisis prone, also in terms of its relationship to nature. It is based on a “shadow of externalization”. That is, capitalist dynamics and the process of capital valorisation and accumulation are based on aspects which are often denied or overlooked, especially non-paid labour and nature (Biesecker/Hofmeister, 2010; also Marx in his famous 24<sup>th</sup> chapter on the “so-called primitive accumulation” in *Capital*, vol. 1).

Moreover, different modes of production always co-exist and are mutually co-constitutive. René Zavaletta (2009) and Luis Tapia (2010) use the concept of *sociedad abigarrada* (“overlapping society”) in order to indicate that complex articulations of different modes of production do exist. Their point of reference is indigenous communities and subsistence economies which do not disappear but which are rather shaped with the introduction of the

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<sup>5</sup> Not all societal relations or problematic dynamics are covered by the concept of capitalism or by the capitalist mode of production. Theoretical concepts cannot reproduce the complexity of social reality. The concept of capitalism adopts a powerful grammar which structures and undermines societal relations, including, too, societal nature relations, which inevitably engenders to the crisis character of modern societies.

colonial and capitalist mode of production. On the other hand, the capitalist mode of production performs differently in varying historical contexts.

Those brief and abstract reflections bring us to a crucial dimension of any debate about (social ecological) transformation. From a historical-materialist perspective it is not the question whether societal transformation and societal nature relations transform but what dominant logic stands behind that transformation. This should be made explicit by different approaches dealing with transformation.

Moreover, for a critical concept of transformation, a temporal dimension needs to be added, i.e. a periodization of societal development in a comprehensive sense. Does transformation, as taking place or an intended project, occur within and under conditions of the capitalist mode of production or should and does transformation transcend capitalism? The latter refers to another mode of production, what Karl Polanyi (1944/2001) called the “Great Transformation” referred to the establishment of industrial capitalism; today the Great Transformation would mean moving away from such capitalism.

Since the 1980s, various approaches referring to Marx’s theory of the capitalist mode of production have developed proposals as to how continuity and discontinuity *within* capitalist dominated societal formations might be understood.<sup>6</sup> Regulation theory claims at the social-theoretical level the following: Historically, contradictory capitalist relations, including societal nature relations, have taken very different forms due to technological, socio-economic, cultural and political developments and the contingent results of social struggles.<sup>7</sup> The manifold relations can be temporarily stabilized, and will thus create the societal context for a relatively permanent process of capital accumulation. As we have often seen throughout history and as we currently experience, capital accumulation can also take place under unstable conditions and in periods of crisis. However, socio-economic structures and processes work better when certain regularities exist; concerning social structures like class or gender, compromises and consent can be better achieved under more or less stable conditions. The reproduction of society as a whole is continually manifested through the actions of individuals who pursue entirely different strategies and have very different allocative and authoritative resources available to them. For this reason, the reproduction of society remains a precarious process, although ability to plan and handle dynamics may develop through the temporarily firm establishment of social relations.<sup>8</sup>

At the abstract level, Marxist theory focuses on the capitalist mode of production, at the concrete level on social formations (i.e. usually national societies). The invention of regulation theory was to introduce a middle-range level of abstraction in order to identify

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<sup>6</sup> Most of the works on the periodization of capitalism – including the regulation theoretical version presented here – do not focus on social-ecological issues, either theoretically or in terms of time diagnosis. That may change, in view of the current dynamics of real history. On critical theories and their conceptualisation of continuity and discontinuity in general, cf. Albritton et al., 2001

<sup>7</sup> This is shown by the concept of regulation: “We call ‘regulation of a social relation’ the way in which this relation is reproduced despite and through its conflictual and contradictory character. Thus the notion of regulation can only be understood within a particular schema: relation-reproduction-contradiction-crisis” (Lipietz, 1988: 11).

<sup>8</sup> See Aglietta, 1979, Lipietz, 1988, Boyer, 1990, Becker, 2002, Hirsch, 1997, Jessop/Sum, 2006, Atzmüller et al., 2013. For contributions which intend to enhance regulation theory towards the environmental crisis as well as to Ecological Economics, cf. Zuindeau, 2007; Gendron 2014; Douai et al. 2012.

since the emergence of capitalism different, more or less stable phases across different formations: i.e. *modes of development* such as Fordism. The concept mode of development considers more and historically concrete elements such as mass production and mass consumption than the term more abstract mode of production.

Macro-economic coherence—a functioning “regime of accumulation”—is institutionally embedded through a “mode of regulation”. This encompasses “the totality of institutional forms, networks, and explicit or implicit norms assuring the compatibility of behaviors within the framework of a regime of accumulation in conformity with the state of social relations and hence with their conflictual character” (Lipietz, 1988: 24). This stabilisation occurs via broadly shared societal values and the temporary institutionalisation of societal relations in the form of modes of regulation. Boyer (1990: 42 et seq.) describes the characteristics of the mode of regulation: it secures the reproduction of fundamental societal relationships across all concrete manifestations of institutional forms; it “steers” the reproduction of the particular regime of accumulation; and finally, it guarantees the dynamic compatibility of a wide range of decentralised decision-making processes by individuals or institutions without having to take the logic of the entire system into account. The relative permanence of societal relations means not only the reinforcement of institutions but also the stabilisation of the expectations and life practices of individuals, as well as of collective actors, such as trade unions.

A more or less stable mode of development, that nonetheless involves minor crises and even massive protests but no fundamental change in the direction of societal development, constitutes a “mode of development” or in Gramscian terms a “historic block” (Antonio Gramsci, 1991 et seq.: 1045, 1688). An understanding of the current period is crucial for an assessment of strategies and proposals, as well as for the analysis of real-historical processes of transformation. For instance, any contribution to the debate about strategies and/or the possible emergence of a Green Economy or Green Capitalism would benefit from regulationist insights (Brand/Wissen, 2014, see section 5).

As we saw, a regulationist conceptualisation of societal steering is more comprehensive than a narrow understanding of the state which is supposed to “steer” society – as government/state or in the mode of governance.<sup>9</sup> In critical sustainability research, the problem of many governance perspectives is accurately defined: “Conventional approaches [to governance] may sustain a myth of a world manageable through neat state-civil society-international institutions and distinctions, through scientific expertise, and through uniform approaches to problem and risk assessment based on singular views of evidence. ... While these myths may expediently sustain a sense of order and control, at least in the short term and at least for some, this is often a fragile, problematic and ultimately illusory order” (Leach et al., 2007: 24).

In line with this, a historical-materialist state and governance theory offers useful analytical tools. Here, the state is not considered as a neutral entity but as a *social relation*. Therefore, the structures and actions of the state and modes of governance cannot be explained by

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<sup>9</sup> Especially with in French debate which was and is dominated by economists many contributions to regulation theory underestimate(d) the state and governance as a specific social relation. Usually, the state was and is treated as one institutional form beside others.



themselves but rather through the consideration of social practices and forces, the (changing) social context, the contested functions or tasks of the state in societal reproduction, other dimensions of the mode of regulation and the forms of social-economic reproduction, i.e. the historically concrete accumulation regime.<sup>10</sup>

State and governance are considered not to be a mere instrument of capital or dominant social forces. However, they need to be understood in relation to them. A historical-materialist perspective of state and governance as social relations aims at ascertaining the domination-shaped character of state policy and governance as a structural pattern of modern societies. Unsustainable structures and processes are deeply rooted in the state apparatus, its personnel and rules, their methods of functioning and their knowledge, and their modes and practice. This points at the co-constitutive character of society and state policy or governance, i.e. to a broadly understood cultural political economy (Brand, 2013).

Moreover, in order to understand existing societal constellations and dynamics an important realisation is that the state is crucial in giving interests and constellations of forces certain durability, in organising compromises and alliances and possible hegemony. The state also maps out the multiple terrains of struggle in the relations of production, through the education process, the assignments of the roles of individuals, etc. Therefore, the state is a central site or “strategic field” (Poulantzas, 2002: 168; translated from the German version) in which to deal with manifold conflicts and to facilitate the creation of consensus through stabilised and shifting relations of forces and compromises with its means of force, law and regulations, discourses and legitimacy, and material and immaterial resources.<sup>11</sup>

In that sense, the state-centric and voluntaristic claim in the WBGU report on transformation “It’s politics, stupid!” (WBGU, 2011: 200) can be put into a wider context: When the state is considered as part of society at different scales (world, national, local, and even translocal, cf. Demirović, 2011, Brand et al., 2011) with its social forces, power relations, discourses and cultural political economy, it can be understood as “a relationship of forces, or more precisely the material condensation of such a relationship among classes and class factions, such as this is expressed in the State in a necessarily specific form” (Poulantzas, 2002: 159). Such a theoretical perspective helps to sharpen the understanding of the state and governance, governmental action and public policies within the transformation debate. Specific historically concrete state forms privilege particular strategies, interests, alliances, forms of action, and discourses and articulate with certain modes of action and power in the different state apparatuses (Jessop, 2007). Moreover, in moments of crisis and decreasing hegemonic mechanisms, the state gains importance as a disciplinary power (Gramsci, 1991 et seq.: 1502, 1637).

I turn now to the concept of hegemony. The possibilities and obstacles of transformation need to be understood against the background of the more or less broadly accepted and daily lived character of societal relations. At this point, Gramsci’s concept is useful because it exactly aims to detect the universalized (not homogenized) socio-economic, political, and

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<sup>10</sup> Cf. Poulantzas, 1978, Jessop, 2007, Aronowitz/Bratsis 2006, Hirsch, 2005, Sauer, 2011, Wöhl/Sauer, 2011, Demirović, 2011, Bretthauer et al., 2011, Lessenich, 2011.

<sup>11</sup> Gramsci and Poulantzas focused on the class character of the state but their conceptualization can be enhanced to other relations like gender (Ludwig et al., 2009) and societal nature relations (Brand et al., 2008).

ideational patterns and mechanisms of domination. Gramsci intended to elucidate, in depth, the complex mechanisms of “the agreement of associated societal wills” (Gramsci et seq., 1991: 1536, Buckel/Fischer-Lescano, 2009). In contrast to the diagnosis of WBGU (2011: 67 et seq.) that we experience a worldwide transformation of values sensitive for ecological questions, a regulationist and Gramscian perspective points more at the socially and ecologically problematic but, at the same time, attractive industrialist-fossilist, i.e. imperial mode of production and living (Brand/Wissen, 2012, 2013). This mode of living is not only deepened but also spatially enhanced into the countries of the capitalist semi-periphery. Moreover, considering capitalist dynamics of accumulation and commodification we can better understand why environmental policies and politics tend to privilege “market mechanisms” to deal with environmental problems.

In this context, the Gramscian concept of “passive revolution” (Gramsci, 1991 et seq.: 966) underlines the fact that under conditions of the capitalist mode of production and respective power relations, a probable dealing with a crisis or dimensions of the multiple crisis stays in line with existing societal relations.

“The passive element is to integrate the interests of the subaltern segments while keeping them in a subaltern, powerless position, and to absorb their intellectuals and leaders into the power bloc, while depriving the subaltern of their leadership (*transformismo*). ... The decisive factor for the power bloc is not to eliminate or to solve contradictions, but to manage them so that they stay under control. Thus, such a concept of hegemony does not ask for the stability of a certain order, but rather for ways of dealing with the contradictions” (Candeias, 2011: 2-3).

This strategic and power dimension of a concept of transformation, or better said: of strong obstacles to it, is widely absent in the transformation debate.

#### **4. Political ecology and the regulation of societal nature relations**

Next I will argue that political ecology provides important insights in term of social ecological transformation, especially with its concept of “societal nature relations” (*gesellschaftliche Naturverhältnisse*).<sup>12</sup> A starting point for a critical concept of transformation is the ecological critique of political economy (Altvater, 1993, 2005, Foster, 2000, overview in Dietz/Wissen, 2009). This argues that the metabolism of human society with nature, which is essentially mediated by labour, assumes a particular form in capitalist societies: the production of use values for the sake of exchange value and/or profit; a hierarchical division of labour between capital and wage labour, as well as other forms of labour. Moreover, a modern state develops which is separated from the capitalist economy and class relations. The “colonization of nature” is a tendency in all human societies (Haberl et al., 2011). However,

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<sup>12</sup> cf. the heterogeneous paradigm of political ecology in the Anglo-Saxon debate: Forsyth, 2003, Robbins, 2004, Peet et al., 2011; cf. Whitehead et al., 2007 on the role of the state in political ecology; a plea for a Gramscian political ecology from Mann, 2009, for the German speaking debate, cf. Görg, 2003, 2011, von Winterfeld 2009, Gottschlich 2011, Wissen, 2009, 2011, Brand/Wissen, 2012, 2013; for the viewpoint of political ecology and the role of the state; for the related perspective of social ecology cf. Becker et al., 2011, Krausmann et al., 2008, Fischer-Kowalski, 2011, overview in Hausknost, 2013.

under the conditions of the dominant capitalist mode of production this is linked to the strong tendency towards commodification.

At the ontological level, political ecology undermines the dichotomy between the social and the natural. From this perspective, the world-historical problem we are confronted with today is thus not primarily the overuse of “nature out there”, upon which society is impacting, using, and often overusing nature and destroying it, i.e. its resources, ecosystems and sinks. This is also the predominant systemic perspective which ecological economics, too, adopts, even though it sees the environment as encompassing society and the formal market economy (Common and Stagl, 2005, Daly, 2007; overview and criticism in Spash, 2012b). Instead, from a political ecology perspective, nature is societally (i.e., socio-economically, technologically, culturally and politically/institutionally) constituted and appropriated. What is being examined is not “the environment”, the “environmental space”, “planetary boundaries”, or even the overuse of resources, ecosystems and sinks. Of interest are rather the capitalist, imperial and patriarchal forms of the appropriation of nature: i.e., the forms in which such basic societal needs as food and housing, mobility and communications, and health and reproduction are satisfied. Accordingly, access to and control over nature and/or “resources” are decisive for societal relations (Becker et al., 2011, Görg, 2011, Brand/Wissen, 2013).

This is not to deny the material peculiarities of biophysical processes which, under certain circumstances, can become no longer reproducible and lead to more or less severe crises. However, , they are shaped and endangered by society and its peculiar organisation, and even more so in the Anthropocene.<sup>13</sup> And conversely, the materiality of nature shapes societal processes.

With respect to the social ecological crisis, and in line with regulation and hegemony theory, there is no clear dichotomy between stabilized societal relations and crises. Since the beginning of industrial capitalism, capitalist, patriarchal, and imperial modes of production and living gained certain stability and hegemony at the cost of environmental destruction. However, societal nature relations were stabilised, especially during Fordism, *due* to its environmentally unsustainable character. Manifold societal institutions, like the capitalist market and the capitalist state, assure certain hegemony of destructive and domination-shaped societal nature relations (Mitchell, 2009; Altvater, 1993; Brand/Wissen, 2013). The societal regulation, in the sense of dealing with contradictions, of capitalist societal nature relations is possible, and does in fact occur; herein lies a central dynamic of politics (Görg, 2011; Wissen, 2011, Brand et al., 2008; Brand/Wissen, 2012).

At the core of many current problems are the contradictions of the industrial-fossilistic and capitalist mode of production. Fordist forms of mass production and consumption, more or less functioning social compromises and stable welfare institutions became and still are a strong and attractive orientation in societies of the Global North; and also in the Global South. Exactly this constellation of the environmentally destructive *and* socio-economically attractive, that was created during Fordism after World War II, is a main driver of the

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<sup>13</sup> Political ecology emphasizes that the very interpretation of ecological problems itself is not a neutral but domination-shaped process. Concepts like “planetary boundaries” constitute a specific perspective which makes particular interpretations of problems and possible forms to deal with them more plausible than others.

transformation debate. In the actual crisis Fordist patterns are prolonged, and partially deepened through an intensification of unsustainable patterns of production and consumption. This process is partially shaped through selective ecological modernisation under the header of a Green Economy (see section 5).

A main point for a critical concept of transformation is then that: The capitalist regulation of societal nature relations does not mean the abolition of tendentially destructive forms of the appropriation of nature. However, the destruction of nature will not necessarily become an urgent problem for overall capitalist development, i.e. dangerous negative impacts can be spatially externalised and temporarily postponed. This can be seen in climate change: Many negative effects of which are occurring and will occur in more vulnerable places and in the future. However, that does not necessarily call the fundamental structures and developmental dynamics of capitalism into question.

## **5. Discussion and Outlook**

The debate about transformation attempts to analyse current and future changes in light of visionary and strategic claims that the world needs to be changed. However, such claims should not supersede the tough theoretical and empirical work of understanding current societal dynamics and societal nature relations. My point is not that visionary and strategic claims and motivations should be avoided, but that they run the danger of orienting the analysis of the actual towards desired outcomes and overlook the deeply inscribed socio-economic, political, cultural, and subjective social relations, and their contradictions and contingencies, that need to be transformed.

Social-theoretical reflections and related time diagnoses do not contribute directly to the development of political strategies. However, they can sharpen the understanding of structural constraints, contradictions, the improbability of functioning societal reproduction and the problems and possible exhaustion of hegemonic rule. I give some examples and name analytical challenges.

The proposed perspective undermines the dichotomy of top-down and bottom-up approaches to sustainability. Analyzing historically concrete forms of hegemony and capitalist regulation means considering how the corridor of (top-down *and* bottom-up) alternatives tends to be systematically narrowed down to, at best, forms of capitalist ecological modernisation. It remains to be seen whether projects like the greening of the economy or green capitalism will be potentially capable of ushering in a new accumulation dynamic by changing the energy and resource base, and whether they can be more than just a passive revolution (Brand, 2012, Dellheim et al., 2012, Spash, 2012a, Wallis, 2010, Newell, 2012, Koch, 2012, Brand/Wissen, 2014). There still exist powerful structures, interests, and dispositifs of financial market capitalism. Muradian et al. (2012: 559) argue that especially economic dynamics in the new economic centres “constitute the beginning of a new historical phase of modern capitalism.”

A critical concept of social ecological transformation implies analysing (and practically criticising) the manifold forms of societal domination. From a historical-materialist

perspective, a crucial aporia of social ecological transformation lies in the fact that a new—sustainable, democratic, just, and free—world must be realized on the terrain of existing forms of societal (re-)production and domination, and must transcend them. As Marx argued at the beginning of his *18th Brumaire of Louis Bonaparte* (1963) “Men make their own history, but they do not make it as they please; they do not make it under self-selected circumstances, but under circumstances existing already, given and transmitted from the past.” He stressed that out of the (practical) critique of the “old” world a new one can be found. At a more concrete level, social ecological strategies must go beyond challenging the status quo and create progressive alternatives that are “rooted in concrete reforms” and potentially capable of “neutralis[ing] the strategy of managing change through promoting a passive revolution” (Showstack Sassoon, 2001: 13).

The debate about alternatives and related practices became intense during the last years. I already mentioned discussions around degrowth (cf. footnote 2). Inspired by historical materialism there is a long tradition of eco-socialist thinking and strategies (Pepper, 1993; Benton, 1996; Foster, 2000; Salleh, 2014; cf. also the nice work on alternatives within the work of Marx by Hudis, 2013). Beside many differences a crucial point is that the control over the more and more centralized means of production, the imperative of capital accumulation and a deeply inscribed dispositive which sees nature as something to be dominated and exploited need to be overcome.

We do not (and should not) have a master plan but we can, as Theodor W. Adorno did not get tired of stressing, take alternative experiences seriously and juxtapose them against accorded principles (like austerity politics or the Green Economy as the claimed only ways to deal with crisis). This opens the space to link analyses to existing, developing or desired alternatives. Therefore, a concept of transformation informed by the presented theoretical perspectives—including perspectives on gender and racism, imperial and neo-colonial structures and processes, societal nature relations—is not blind to already existing or possibly emerging non-capitalist or post-capitalist forms of socialisation (in the language of political ecology: “the plurality of societal nature relations”).

The debate about futures, visions and pathways itself is a terrain of contestation (Rilling, 2014, Kammerlander et al., 2013). How to think about possible and desirable futures today, to integrate them into strategies and contests, to shed particular light on the actual in the sense of Ernst Bloch’s “real utopia”, to indicate possible directions and criteria of change and foster a sense of the possible, and to mobilise to approach those futures? Rilling (2014: 42) argues that we live in a society that integrates (and historically integrated) access to futures into their own mode of operation and patterns of action, into reflection and politics due to its permanent and accelerating transformation. However, this transformation understood as “futuring” is an enormously power-driven process (who has the resources to develop sophisticated scenarios?). Futuring does not focus on possible futures but asks how those imagined futures are integrated in current societies. In that sense, futuring means to capture and interpret futures, to envision them and, therefore, to make them to an object of *current* (non-)decision and (non-)action. Debates about transformation, transition management, pre-emption or resilience imply “the attempt to occupy the absent continent of future, an appropriation and *usurpation* of futures and incidents which still need to be actualised.” (ibid.: 32; emphasis in original)

A consequence of this contested process is to make environmental and societal values more explicit. The visionary and strategic dimensions of a sustainable society should be linked to the (always ambiguous) project of enlightenment, i.e. the contested realisation of autonomy and self-determination; of freedom and justice; of forms of work, production, and consumption, which are not based on nor stabilize societal domination. The question of a democratic shaping of society and societal nature relations seems to be crucial. This implies the democratic control of resources but also of the manifold processes of production and consumption. This is an important research perspective: What are the already existing democratic forms of resource control, which struggles have been and will be necessary in order to realize them, and how do they stabilize themselves institutionally? Which demands can be made in a comprehensive sense for the democratic structuring of society's interaction with nature? In that sense, debates about degrowth and the claim to formulate a political project constitute a counter-perspective to dominant forms of futuring.

Of interest would be a detailed examination of the social ecological content of the various protests, revolts, and processes of change which are occurring worldwide, with the goal of determining the extent to which the ecological crisis and social ecological transformation perspectives are a factor in them. In some countries of Latin America, such as Bolivia and Ecuador, this is obvious in debates about alternatives to dominant resource extractivism (Lang and Mokrani, 2011, Gudynas, 2011, Svampa, 2011). But also resistance against gold mining in Greece can be understood against this background. These experiences, along with many others on smaller scales, like the transition town movement, can help us to better understand that social ecological transformation has to do with social emancipation and should reject any form of eco-authoritarianism (cf. Shahar 2015).

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