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Thomas Barth, Georg Jochum, Beate Littig

Transformation of what? Or: The socio-ecological transformation of working society¹

Keywords: societal-nature relationships, labor, Polanyi, sustainability, transformation research, commodification, work turnaround

Summary:

The critical strand of the current sustainability discourse often refers to Karl Polanyi's work "The Great Transformation" (e.g. "World in Transition – A Social Contract for Sustainability", German Advisory Council on Global Change (WBGU), 2011). However, this reference is usually shortened, since in particular Polanyi's remarks about the commodification of labor are disregarded. Overall, work still plays a marginal role in the entire sustainability discourse. Consequently analytical as well as transformative potential remains unused. In our paper we want to put work into the center of the reflections on transformation and outline ways of a socio-ecological transformation towards a sustainable work society.

For Polanyi the marketization of work and nature was in the center of his analysis of industrial society. He argues that market societies are constituted by two opposing movements - the laissez-faire movement to expand the scope of the market, and the protective countermovement that emerges to resist the disembedding of the economy.

Thus transformation concepts which refer to Polanyi have to focus on the socio-ecological transformation of the working society. Accordingly, it is not just an energy turnaround as often argued, but a "work turnaround" that needs to be at the center of the (sustainability-oriented) transformation debate, which finally involves the re-embedding of the markets into society and the ecosystems.

Summing up our arguments, we come to the conclusion that dominant sustainability-oriented transformation concepts fail (e.g. decarbonization, green economy), since they primarily aim at the ecological reorientation of market mechanisms. We argue that the initial point of the fundamental transformation of social

¹ This article is an extended version of the article *Nachhaltige Arbeit – die sozial-ökologische Transformation der Arbeitsgesellschaft befördern* [Engl.: Sustainable work – the socio-economic transformation of working society] (Barth, Jochum, Littig 2018). Presented at the Research Workshop 'Transition Impossible? Ambiguous Transformations and the Resilience of Unsustainability' organized by the Institute for Social Change and Sustainability (IGN), Vienna University of Economics and Business, Sept. 19-20th 2018.

relations and of social relations with nature is the (re-)organization of work. A transition to sustainability means in other words, reconceptualizing the global world of work by redefining the concept of work itself and its structural (e.g. the gendered and global division of work, paid/unpaid work, technological innovations) and institutional foundations (e.g. the role of the state). Exploring sustainable work provides a concrete basis for talking about both the direction of this transformation and the way to get there.

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1. Introduction: Polanyi Interruptus in the Socio-Ecological Transformation Debate

In the debate on socio-ecological transformation, reference is frequently made to the work of Karl Polanyi. His book *The Great Transformation* (Polanyi 2001/1944) served inter alia as a title-giving point of reference for the flagship report *World in Transition – A Social Contract for Sustainability* (WBGU 2011). Published by the German Advisory Council on Global Change, this report stresses above all from a climate policy perspective the need for a new social contract for “a ‘Great Transformation’ into a sustainable society” (ibid. 1). It thus seems all the more remarkable that the broad debate on a socio-ecological transformation towards a sustainable society that has followed its publication rarely explicates Polanyi’s central argumentation. At the center of his analysis lie processes of disembedding and subsequently re-embedding the capitalist market from society and the accompanying transformation of the relationships between work and nature (cf. Sachs 2013, Göpel/Remig 2014). Indeed, even more recent publications (e.g. WBGU 2016) fail to note that – from Polanyi’s perspective – re-embedding movements bear close links to a critique of the commodification of labor and nature.

This theme also plays a very marginal role in the current transformation-oriented discourse on sustainability, thereby squandering analytical and ultimately ‘transformative potential’. After all, by critically examining the expansive logic of commodification, i.e. the turning of labor and nature into objects of trade (commodities), Polanyi’s “Great Transformation” offers an important starting point for the analysis and critique of the non-sustainability of current economic structures. Polanyi’s embedding theorem also suggests paths to overcoming the socio-ecological crisis. For this to happen, however, work in all its forms must be integrated conceptually into transformation design and research. This applies all the more in light of the current discourse on the structural transformation that is expected to accompany the digitalization of work and economy. This is the dominant topic in the debates on the future of work and the development of society as a whole at present and thus also contributes to reducing the relevance of the discussions on a transition to sustainability. Since the effects of digitalization on work and the consumption of nature clearly cannot be underestimated (Santarius/Lange 2018, Loske 2019), it would seem

all the more important to link the discourses on a socio-ecological transformation towards sustainability and the discussions on the future of work.

2. Work in the Sustainability Debate

Before we turn to the central arguments in Karl Polanyi's transformation analysis, we would first like to outline the current status of the debate on work and ecology or sustainability. This debate has been ongoing for a number of years, even if linking the topics involved has so far not been a focus of research and political attention. While the relationship between work and sustainability has more recently been given increased attention in academic (e.g. Barca 2017, Barth et al. 2016, Diefenbacher et al. 2017) and political circles (UNDP 2015), such efforts nonetheless remain on the fringes, despite the fact that work is a key topic in societal transformation. There are several reasons for this: social exchange with nature occurs largely in concrete work processes; sustainability policies and socio-ecological transformation often have a direct impact on the organization of work and those who depend on it for a wage; paid employment creates and satisfies individual and collective needs; individuals draw purpose from their work. Furthermore, a person's position in the social structure is determined to a large extent by their position in the employment system, while welfare benefits and safeguards are tightly linked to paid employment. Work as a human practice that transforms nature – in both the positive and the negative sense – thus becomes a focus of attention. It is significantly affected by environmental changes and policies and constitutes an important factor of influence for the acceptance of socio-ecological transformation policies.

In the 30 years since the publication of the Brundtland Report, the topics of sustainable economic growth and consumption have always featured in the debates on sustainable development. In contrast, and despite the few political trends that ultimately did little to establish it as a research topic, the link between (paid) work and sustainability only gained relevance at a much later date (Littig/Spitzer 2011). A recent important milestone in this regard was the Trade Union Assembly on Labour and the Environment in Nairobi in 2006, where international trade union organizations introduced their *Just Transition* framework. This linked work and climate change and

was ultimately also included in the *UN Framework Convention on Climate Change* (UNFCCC; cf. Rosemberg 2013). However, following the 2008 economic crisis, the concept that would advance as the guiding principle for the coming years was not the *just transition* but rather that of the *green economy* with its promises of new growth. The *Green Economy Initiative* was launched in 2008 under the patronage of the United Nations Environment Programme (UNEP), calling for a so-called “green new deal” as the solution to the global economic and environmental crises. Indeed, since the Rio+20 anniversary conference in 2012 the green economy has been seen as the concrete model for sustainable development at national and international political level. While the *Just Transition* framework focused on transition to a new, environmentally-friendly way of doing business to the benefit of and with the participation of workers, the *green economy* capitalizes primarily on technical innovation and energy/resource efficiency to create new jobs (*green jobs*) and fight poverty as part of its central goal of re-stimulating economic growth. The clear *Sustainable Development Goals* (SDGs) set by the UN in 2015 (especially Goals 8, 9 and 12) affirm this focus on innovative, competitive, social and environmentally-sustainable business. *Decent work* is, however, also included in the SDGs as an independent goal (Goal 8), albeit closely interlocked with economic growth.

The SDGs also form the background for the UNDP’s *Work for Human Development Report* (UNDP 2015) and its call for “moving to sustainable work” (ibid. 129). “Sustainable work” is defined in this report “as work that promotes human development while reducing or eliminating negative externalities that can be experienced over different geographic and time scales. It is not only critical for sustaining the planet, but also for ensuring work for future generations.” (ibid. 37) The clear warning in the report is that if we continue to destroy the environment, human labor – and with it our development potential – will be subverted. With the shift in focus from the durability of the satisfaction of needs to the sustainability of employment options, the world of work comes to the attention of the sustainability debate far more strongly than before. This attention is not restricted simply to paid work but instead assumes a wider definition: “Sustainable work is not just about paid work but also encompasses the often impactful efforts of caregivers, volunteers, artists, advocates and others.” (ibid. 37)

Despite expanding the definition of the term work, the report still remains largely committed to the UN's green growth economy. Ultimately, it is not about a "Great Transformation" in Polanyi's sense but a transition to a green economy using targeted political management instruments (Jonas 2017)². However, the guiding principle of "sustainable work" can only then enrich the sustainability discourse and drive it forward if it is also – following Polanyi's critique – linked to the problem of the marketisation of work and nature.

Parallel to the supranational efforts of the UN's sustainability organizations to give more weight to the topic of sustainable work, an increased focus on the socio-ecological aspects of work can also be found in the scientific debate. Earlier quite comprehensive research (e.g. HBS 2000) in Germany was seldom sustained, presumably because of the growing dominance at the start of the 21st century of other issues like terrorism or global economic competition. The last few years have, however, seen a rise in the number of studies into work and sustainability. These also reflect the changed realities of an increasingly global economy and the accompanying shifts that have resulted from the ascent of some emerging nations, the ongoing structural change in the world of work and the now comprehensive environmental and climate protection targets (Dimitris/Rätzel/Uzzell 2018). In line with their predecessors, these more recent studies also raise questions regarding the design of work or sustainable work and their relevance for transformation research in both the analytical and the transformative sense.

Despite the recent momentum, no real systematic theoretical and empirical link has as yet been made between the transformation towards sustainable relationships between society and nature and the current trends towards change in work and its non-sustainability in its present forms. Polanyi's analysis of the great transformation of industrial society suggests a need to understand the major change processes in society – both in the past and the present – above all as processes of socio-ecological

² We see socio-ecological transformation as a comprehensive, long-term structural process of changing society's relationships to nature that is the result of unintended or only partially intended effects of social interaction dynamics (cf. Brand 2017, Reißig 2014). Transition, in contrast, means a targeted, active shift to a new, normative and desired (sustainable) state. The two terms are at times used differently in literature.

transformation in the relationships between work and nature. We will expand on this notion in the next two sections of this article

3. Social Change as Process of Socio-Ecological Transformation in Work and Nature

In the debate on socio-ecological transformation, the recourse to Polanyi's term "Great Transformation" awakens expectations of modern-day social upheaval and structural transformation akin to that encountered in the industrial revolution. Indeed, the *World in Transition – A Social Contract for Sustainability* (WBGU 2011) report states: "The extent of the transformation (...) is comparable to the two fundamental transformations in the world's history: the Neolithic Revolution (...) and the Industrial Revolution, which Karl Polanyi (1944) called the 'Great Transformation'." (ibid.: 5) At the same time, experts point to the need for stabilizing socio-political regulation and the embedding of the economy encountered in the transition to a capitalist industrial society. The pending socio-ecological transformation towards sustainability thus needs to be flanked by normative and political change processes and a new "Social Contract for Sustainability" (WBGU 2011). Critics maintain that this structural change is ultimately intended more as an incremental change that is focused on the transition to more climate compatible technology, in the course of which neither the prevailing constellations of actors, cultural patterns and goals nor the economic structures are called seriously into question (cf. Brand 2016: 24).

Taking up this critique, we apply Polanyi's reasoning to show that the transformation of society towards sustainable relationships with nature will have to be far more radical than previously assumed. Ultimately, Polanyi raises and addresses the topic of the emergence of the capitalist economy and its destructive impact on work, nature and social relationships. To demonstrate how his work can be applied to the transformation of society towards sustainability and why the role of work should be given special consideration therein, we use the concepts of *disembedding* and *re-embedding* the economy to sketch the three decisive socio-ecological waves of transformation in the past decades.

3.1. Seeing the "Double Movement" as Socio-Ecological Transformations

In his analysis, Polanyi depicts the emergence of the modern capitalist labor and industry society in Europe and its colonies as a *double movement* in society. Following Polanyi (2001/1944) and Burawoy (2015), we identify three waves of *disembedding* and *re-embedding* processes and examine for each the effects of commodification, de-commodification and re-commodification processes on *work and nature*.

Viewed systematically, the market society's assertion process centers initially on the marketisation of the three "substances" or production factors labor, capital and land (the latter used by Polanyi as a synonym for nature), which assume the character of fictitious goods. However, this reverses a fundamental characteristic of economic systems: "Instead of economy being embedded in social relations, social relations are embedded in the economic system." (Polanyi 2001/1944: 60)

The commodification of labor and nature and their transformation into goods thus lie at the start of the great transformation of the early industrial society. Since this destroys social relationships and the natural environment, it also goes hand-in-hand with a fundamental tendency towards crisis, i.e. in current terminology, it threatens social and ecological sustainability: "Machine production in a commercial society involves, in effect, no less a transformation than that of the natural and human substance of society into commodities. (...) The dislocation caused by such devices must disjoint man's relationships and threaten his natural habitat with annihilation." (ibid. 44).

The economy's disastrous effects on work and nature lead to a "countermovement (...) for the protection of society" (Polanyi 2001/1944: 136), whose goal is to limit market reach, bring about de-commodification and re-embed the disembedded market economy in society. The great transformation can thus be described as a "double movement" (ibid. 138): "The one was the principle of economic liberalism, aiming at the establishment of a self-regulating market (...); the other was the principle of social protection aiming at the conservation of man and nature." (ibid.)

This process of disembedding and re-embedding or commodification and attempt at partial de-commodification repeats itself several times over the course of history. The *first wave* ran from the late 18th to the early 20th century in the form of the original *marketisation* of Europe's feudal societies. The complexity and momentum of the changed organization and dismantling of labor brought about by industrial production

forced a constant expansion of the markets and with it an “extension of the market mechanism to the elements of industry – labor, land, and money” (ibid. 78) in which the previous embeddings are systematically torn up. While previously “labor forms part of life, land remains part of nature, life and nature form an articulate whole” (ibid. 187), this whole is now dissolved, and the parts are aligned. The results are poverty, urbanization and rural exodus as well as the threat of the “destruction” of European agriculture through food imports. The conflict-ridden, often fragmented and contradictory *countermovement* was found in the 19th century’s interventionist labor, factory and social laws as well as in its land laws and agricultural tariffs, which were intended to limit the mobilization of labor and nature/land and thus also market reach (ibid. 187 ff.).

The *second wave of marketization* began with the renewed advance of the economy following World War I and ended, according to Burawoy (2015), in 1973 with the oil crisis. Here, economic liberalism escalated in the form of a largely unregulated global economy, which pulled the national economies increasingly into the crisis and led to various protectionist measures (e.g. the “New Deal” in the United States, fascism in Europe) (ibid. 40). Polanyi’s analysis centered above all on movements which favored repressive and anti-democratic forms of re-embedding – the great transformation ultimately led to the “fascist catastrophe” (Polanyi 2001/1944: 242). His favored alternative – limiting the economy through Christian and democratic socialism – was not realized.

The post-World War II countermovement to the further commodification of labor – in the form of the Fordist labor society – did indeed have protective effects, above all for a certain (male, white) portion of the working-class population in the northern hemisphere. From a socio-ecological perspective, however, the combination of welfare state, social security, mass production and consumption had a disastrous effect on nature: the “great acceleration” of rapid, fossil-fuel-driven economic growth and the consumption of natural materials (cf. Steffen et al. 2015). The prosperity of the Fordist labor society was thus based on a fundamentally non-sustainable approach to production and consumption, a gendered division of labor and an intensification of the differences between the so-called developing nations and their industrial counterparts, i.e. on a geographical and temporal externalization of the costs of the unequally distributed prosperity (Lessenich 2016, Brand/Wissen 2018).

The *third wave of marketization* of labor and nature began in the mid-1970s with the oil crisis and the neoliberal market offensive and led to a global “disembedding” (Altvater/Mahnkopf 1999: 96). Since, as Burawoy argues, this third wave is characterized especially by increased appropriation of nature, the ecological problems it causes make protecting the environment a central goal for its countermovements: “The commodification of nature is at the heart of capitalism's impending crisis. The countermovement in the third period will have to limit capitalism's tendency to destroy the foundations of human existence.” (Burawoy 2015: 39) While we support this line of argumentation, we also view the current situation to be more complex and ambivalent: the roots of the present-day environmental crisis lie in the earlier phases of the commodification of nature, particularly the use of fossil fuels that drove the industrial revolution. This has intensified in recent decades and been augmented by new forms of controlling nature like genetic engineering or the use of rare earths.

The appropriation of nature by the industrial society has also been the subject of growing criticism since the 1970s, especially following the publication of the book *The Limits to Growth* (Meadows et al.1972). Yet this criticism did not lead to attempts to restrict and regulate the market; the measures introduced under the banner of sustainable development frequently also formed the basis for a new level of commodification of nature.

Expanding on Burawoy's arguments, the further commodification of the labor force leads to critical appropriation of their “inner” nature. In the re-commodification of labor, the transition from early industrialized nation to service society is accompanied by the emergence of new forms of work, a consolidation of labor, the erosion of normal work contracts and an increase in atypical and precarious working relationships. These developments not only extend work to women in particular, they also put economic pressure on the subjectivity of the workforce, who are now incorporated into the work process not just as workers but as whole people. Ultimately, they lead to an increased blurring of the boundaries between work and life (cf. Gottschall/Voß 2003). The consequences for the labor force are a negative impact on their “inner” nature, depression and exhaustion (Graefe 2016).

These processes of delimiting work and making it more subjective and precarious increasingly threaten the psycho-physical reproductive capacity of workers. Voß and Weiß (2013) go as far as to describe burnout and depression as the signature illnesses of “subjectivized” capitalism. The world of work thus not only has to find ways to make its use of natural resources sustainable, it also has to find sustainable ways of dealing with people and their vitality (ibid. 53).

Hence, the crisis in the social relationship to nature that has been instigated by work lies – in our view – at the center of the problems caused by commodification. This crisis is not restricted to the conflict between capitalist production and ecology (cf. Burawoy 2015: 48), there are also discrepancies between the appropriation of workers and the reproductive capacity of their “inner” nature.

This structural change in the centers of global capitalism also required the increasing commodification of labor and nature in other regions of the world: developing and emerging nations were integrated more strongly into the global distribution of work, bringing the advantages of increased prosperity to some groups in the population (the “new middle classes”) and relocating the environmental costs of production and consumer patterns in the wealthy nations to the peripheries (Brand/Wissen 2018). A curious development can be noted here with regard to “external” nature, i.e. the natural environment: on the one hand, marketization increases with the seizure of new lands to expand capitalist economies (Dörre 2013) and many other forms of techno-scientific colonization of nature (Jochum 2016). On the other, state and civic countermovements to this expanded commodification are also formed in some cases.

However, it would be too simple to talk just of a double movement of commodification of nature and environmental strategies. In fact, the goal of protecting the environment has now legitimized new forms of commodification, while sustainability has become the new spirit of green capitalism (Neckel 2018: 17). In the neoliberal, post-Fordist relationships to nature that are establishing themselves (Brand/Görg 2003), the goal of the purported sustainable use of resources serves to justify new forms of capitalist appropriation of nature. Green colonialism (Heuwieser, 2015) justifies land-grabbing practices (particularly in the southern hemisphere) or “green grabbing” in general (Fairhead et al. 2012: 238). In the case of “ocean grabbing” (De Schutter 2012), the

privatization of fishing rights and associated expropriation of traditional, small-scale fishermen are defended by claims of the creation of “sustainable fisheries” (cf. TNI 2014; Jochum/Quinteros 2017).

The socio-ecological side effects of sustainability strategies that are based on a valorization of nature (Görg 2016) have become increasingly evident in recent years. They go hand-in-hand with rebound effects, an externalization of socio-ecological problems, new forms of exploiting labor and the marginalization of traditional communities and their economies. The commodification of nature driven by new market-oriented sustainability tools (from emissions trading to the monetarization of ecosystem services or the patenting of genetic codes of tropical medicinal plants) ultimately leads to a “Tragedy of the Commodity” (Longo/Clausen 2011).³

These developments ultimately confirm Polanyi’s transformation theory, at the center of which stands a critique of the destructive consequences of the commodification of nature and labor. The current transformation concepts discussed under the banner of the green economy bet on an expansion of market logic and fundamentally contradict Polanyi’s theory. The reason for the lack of success of this further transformation may also lie in the persistence of traditional commodification logic.

Calls for a great socio-ecological transformation should therefore not be reduced to technical innovations and energy turnaround through an environmentally-friendly refocus of market forces – strategies that prevail in the green economy. In our opinion, it is not just an energy turnaround, as often argued, but a “work turnaround” that needs to lie at the center of the (sustainability-oriented) transformation debate, a turnaround which ultimately involves the re-embedding of the markets into society and the ecosystems. Concentrating on a work turnaround in the sustainability debate shifts the narrow technicist focus on technological change and consumerist focus on consumer

³ The legitimating basis for these commodification strategies is the theory of the “Tragedy of Commons” (Hardin 1968), i.e. the theory that freely available but limited resources are threatened by overuse by the self-interest of the individual. However, many studies clearly show that small communities – particularly in the fisheries sector – have persistently used the commons sustainably (Berkes/Kislalioglu 1991; Ostrom 1990). Longo and Clausen show that it was frequently only the introduction of market mechanisms that led to the “Tragedy of the Commons”. They therefore talk of a “Tragedy of the Commodity” (2011) as the central cause of the growing non-sustainability of the use of maritime resources.

change (Brand 2006) and expands them to include, as we will show below, new questions, perspectives, strategies and solutions.

3.2. Against the Commodification of Work. Prospects for a Sustainable Work (Society)

According to Polanyi's analysis, the disembedding of the economy had disastrous consequences for labor and nature and triggered countermovements that sought to contain the markets. Such countermovements and efforts to re-regulate the markets are once again emerging in the third wave of commodification, seeking thereby to address both social as well as ecological problems (cf. Burawoy 2015).

A simple adaptation of the re-embedding strategies encountered in the second wave of commodification is, however, not advised. These were targeted above all at paid (male) employment and were based primarily on regulatory intervention by the state, thus linking them to a blending out of the problems, the exclusion of specific groups of people and an authoritarian disenfranchising of the subjects.

Fraser (2013) rightly points out that a metamorphosis of the re-embedding efforts into reactionary movements can be observed not only for fascism but also for many other regulatory models in the Fordist modern era. These led to the emergence of new forms of rule and took on an "oppressive character" (ibid.: 118). Indeed, it was precisely these weak points in Fordist re-embedding strategies that the emancipatory movements of the 1960s turned against. Fraser therefore proposes replacing Polanyi's "double movement" of disembedding and re-embedding with a "triple movement" – one which champions not only marketization (disembedding) and social protection (re-embedding) but also emancipation: "The triple movement suggests a political project for those of us who remain committed to emancipation. We might resolve to break off our dangerous liaison with neoliberalism and forge a principled new alliance with social protection. In thereby realigning the poles of the triple movement, we could integrate our longstanding interest in nondomination with the equally valid interest in solidarity and social security." (ibid.: 132)

When applied to the socio-ecological transformation of the world of work, this would imply (1) that the focus on gainful employment be dispensed with and (2) that forms of regulation beyond market and state control must be sought.

1) In our opinion, only transformation concepts that address the dominance of paid, market-oriented work can claim to strive for a great transformation in the sense intended by Polanyi. This, in turn, requires an expansion of the term work that facilitates a broader interpretation of sustainable work, i.e. is not limited to paid, market-oriented work. This would recognize particularly the care work provided outside the realms of paid employment and above all by women as work that is necessary for society.

The commodification process implies both the expansion of market logic to more and more areas of work and the devaluation of everything that has not (yet) been commodified, especially the care work provided predominantly by women (Littig 2017). In contrast, a transition to sustainable work requires:

a) the protection of work and workers against increasing commodification, stress and precarity. Trade union concepts of the (re-)regulation of work in the “decent work” sense (IG Metall Projekt Gute Arbeit 2007) are an important step in this direction.

b) strategies to protect nature from marketization and counteract the increasing “commodification of nature” (Burawoy 2015: 39), which Burawoy sees as a primary cause of the current environmental crisis. These include efforts to “green” paid work and create resource-friendly and environmentally-compatible jobs to facilitate the transition to a sustainable work society and the emergence of a new “ecology of work” (Schröder/Urban 2018). However, this is merely one aspect of a comprehensive socio-ecological transformation that fundamentally redefines the relationships between market-based paid work and life.

c) the upward revaluation of those areas that have not yet been commodified and the creation of new zones beyond the market. This requires the development of de-commodification concepts that reduce the importance of paid work without a corresponding loss in prosperity and that favor crucial social tasks, new ways of organizing work and the sustainable use of resources.

d) clear regard for the implications of the restructuring of the global world of work and its inequalities and exploitative relationships. A transition to sustainable work requires the enforcement of new environmental and work standards along global value chains. The extent to which specific forms of non-market-based, subsistence-oriented work should be deemed positive from a socio-ecological perspective – and thus be protected or encouraged – also needs to be determined.

2) Closely intertwined with the goal of a socio-ecological transformation of the world of work is the question of the development of new forms of governance. This will, in essence, require fundamental “power shifts” (WBGU 2011: 89; Barth/Jochum/Littig 2019). Given their disastrous consequences for society and the environment, the unbridled market forces need to be reined in and regulated by a “proactive state’, a state that actively sets priorities” (ibid.: 2). In light of a global disembedding (Altvater/Mahnkopf 1999: 96), modern-day re-embedding strategies have to extend beyond the national level. This will need to be accompanied by a reinforcement of transnational institutions to strengthen social and environmental standards in the world of work.

However, state regulation of the market forces alone is too simplistic a means of re-embedding; the “state” is a heterogeneous, conflict-ridden entity and quite capable of making ambivalent decisions. State institutions are often themselves more a part of the problem than a part of the solution (cf. the current debate on diesel). In line with Polanyi, Fraser (2013) rightly emphasizes that the re-embedding of the unbridled market can also assume regressive forms. A third, emancipatory variant should therefore be sought – one that lies beyond the primacy of the market economy or state-run society, regardless of whether this operates on a national, transnational or global basis.

This implies firstly that the self-will and potential of the subjects should also be considered as a basis for socio-ecological transformation. Secondly, community-based forms could serve as alternatives to state-run and open markets. The fisheries sector, for instance, is a good example of the superiority of “community-based management” (Berkes/Kislalioglu 1991) over regulatory forms that are based on state control or

market principles (cf. also Ostrom 1990). Such alternative forms of organizing work and the economy are once again being increasingly discussed. Noteworthy examples include, for instance, solidarity-based economic approaches (Giegold/Embshoff 2008) that have in the meantime been widely tried and tested.

It does, however, remain to be seen whether such projects can be extended to society in general. So far, they have largely taken the form of alternative niche projects that are designed to complement the market-driven economy, yet not radically break its dominance. It should also be noted that many of the successful examples tend to involve smaller, traditional communities with a high level of interaction and communication (and social control) among their members. The attempt to transfer such community-based governance models to larger areas and groups would no doubt run into major problems.

We should also not forget Polanyi's largely overlooked warning in the debate on the "Great Transformation", namely that the efforts to limit and re-embed the markets historically led to the establishment of fascist regimes: "The fascist solution of the impasse reached by liberal capitalism can be described as a reform of market economy achieved at the price of the extirpation of all democratic institutions." (Polanyi 2001/1944: 245). Given the numerous populist movements against the internationalization and disembedding momentum of globalization, this warning is again particularly valid. Such movements frequently do not break with capitalistic market logic in principle but try instead to overcome the consequences of internationalization by reinstalling national boundaries. A regressive re-embedding from the right is just as much a threat as the continuation of neoliberal disembedding. While the current right-wing, populist movements (still) largely deny or marginalize the environmental problem, the emergence of totalitarian forms of socio-ecological transformation or transition regimes also cannot be totally excluded. Indeed, the current efforts of the Chinese government to bring about an ecological turnaround of the economy can be interpreted in this sense.

Yet the plea for the strengthening of smaller, regional, community-oriented economic forms that is prevalent in the post-growth discourse is also not without its problems. These can go hand-in-hand with a recourse to ethnic and national identities, as seen in

the fascist regimes of the 1930s. The argument against any form of romanticizing is that the separation and disembedding from traditional communities on the one hand means the loss of sense of belonging and habitat but on the other hand emancipation from systems of social control and confinement.

There is no easy answer to the question of what constitutes the “right” strategy for a socio-ecological transformation of the work society. Instead, it must be combined with a search for successful modes of mixed management.

The simultaneous digital transformation of the world of work that is presently underway raises both new opportunities and risks. Sustainability issues are still largely ignored in the corresponding debate. Indeed, the sustainability debate in the German-speaking regions, and the post-growth discourse in particular, focus above all on the negative effects of the transition to industry 4.0 and point to the threats of job losses and the growing need for energy and resources through the propagation of digital technologies.

While these fears are by no means unfounded, the digital transformation of work also brings opportunities for a transition to sustainability. The geographical and organizational limits of the previous community-based and community-oriented control model could potentially be broadened and extended through the use of digital technologies. It was in this spirit that Rifkin (2014) proclaimed a new economic system facilitated by the intelligent use of new technologies that would be characterized by “collaborative commons” and a “sharing economy”. While the high expectations must be relativized by developments in recent years – keyword AirBNB or Uber, and both socially and ecologically dystopian scenarios of a sharing economy can be envisaged (Loske 2019), gentle digitalization (Santarius/Lange 2018) could nonetheless facilitate more sustainability and open up opportunities for more economic democracy (ibid. 105). Digital technologies are already being used to steer and control global value chains with the goal of enforcing social and environmental standards in the world of work (e.g. the diamond trade, textiles). A radical transformation of the global work chains could definitely be envisaged even given the risk of new totalitarianism and a new level of control of the workforce. It thus remains to be seen what correlations will emerge between the digital transformation and the associated transition to “Work 4.0”

(Matuschek 2016) on the one hand and the socio-ecological transformation towards “sustainable work” (Barth/Jochum/Littig 2016) on the other and what effects these interferences will have on the quality of work.

There can, however, be no doubt that only a perspective which places the socio-ecological transformation of (work) society at the center of efforts for the transition to sustainability will be able to capture this momentum and open up paths to a successful transition.

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