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Commentary

Let's focus more on negative trends: A comment on the transitions research agenda

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ABSTRACT

Much has been written on sustainability transitions, yet all around us unsustainable developments remain rife, and threaten to offset the progress made in other areas. This viewpoint argues that transitions scholarship should widen its scope to consider unsustainable trends, which it has tended to neglect to date. We argue that there is merit in applying the transitions lens to these developments, not least because of its systemic approach, which could help highlight the dynamic relationships between sustainable and unsustainable trends. We sketch some high-level questions for future transitions research including: how unsustainable trends emerge, who drives them, and how research could help to curtail harmful socio-technological changes before they become entrenched. We conclude by arguing that investigating unsustainable trends would benefit transitions research by making it more plural and more radical.

1. Introduction

The analysis of sustainability transitions has become a distinct field of inquiry with a growing research community and hundreds of papers (Köhler et al., 2019). The vast majority of articles are on transforming existing, unsustainable socio-technical systems into more sustainable ones (Fig. 1). However, this alone may not be enough to achieve environmental sustainability, as unfavourable social, technological and market innovations must also be avoided. Such unsustainable changes are important reasons for the limited progress or outright deterioration of environmental performance in several sectors. Prominent examples include growing air travel (IATA, 2019), the increasing market share of Sport Utility Vehicles (SUVs) (IEA, 2019), the shale gas boom (EIA, 2019), and the rise of fast fashion (Drew and Yehounme, 2017).

Despite early warnings (e.g. Shove and Walker, 2007), transitions scholars have paid scant attention to such developments, as attested by the lack of discussion in recent reviews (Geels, 2018; Köhler et al., 2019, see also Fig. 1 and Table 1). This is surprising since it is well known that interacting social, technological and market systems can “lock-in” emissions for decades (Unruh, 2000). If this field of analysis is to foster sustainable societies, it is vital to challenge the mainstream assumption that innovation is always good (van den Hove et al., 2012v; Røpke, 2012), and to consider how unsustainable trends emerge, take-off and accelerate.

Take the example of air travel. Today, flying is cheap partly because of subsidies and tax exemptions. This enables people to live abroad while regularly meeting family and friends from their home country. Such transnational connections may lead them to maintain their high-carbon lifestyles even if subsidies are later cut or taxes introduced, as well as to oppose such policy measures. Simultaneously, the airline industry grows larger, meaning more job losses if climate policy strengthens, as well as a stronger lobby against it. With each day of weak regulation, mitigating emissions from flying becomes more difficult.

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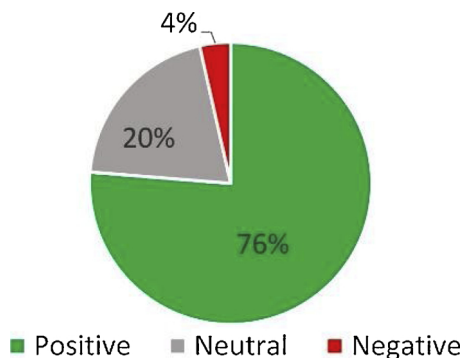


Fig. 1. The direction of change in studies on socio-technical transitions. We searched in the titles, abstracts and keywords of documents in Scopus for “socio-technical transition*”. This returned 329 articles of which 312 had a sustainability focus. Titles and abstracts were assessed to see whether the focus was on transitions towards sustainability (“Positive”), transitions in general (“Neutral”) or transitions away from sustainability (“Negative”). The table of titles and relevant parts of abstracts is available online (<https://bit.ly/2J3dmtf>). For the overwhelming majority of articles the direction of change was unambiguous. Changing the categorisation of the ambiguous articles (< 5%) would not change our qualitative result.

Table 1

Illustrative examples of research focusing on sustainable vs. unsustainable changes using a transitions lens. We searched in the titles, abstracts and keywords of documents in Scopus. The asterisk acts as a wildcard, so *sustainab* covers – among other terms – sustainable, sustainability, unsustainable, and unsustainability. Qualitatively very similar results can be obtained if search terms are replaced by synonyms (e.g. sport utility vehicles by SUVs) or related expressions (e.g. renewable energy by solar or wind, and shale gas by fracking). Negative terms such as “unsustainable trajectory” or “path destruction” are also very rare in Scopus (yield 22 and 11 results, as opposed to 927 for “sustainability transition”).

“Positive” keyword combinations	Number of search results	“Negative” keyword combinations	Number of search results
sustainab AND transition AND “electric vehicles”	187	*sustainab* AND transition AND “sport utility vehicles”	0
sustainab AND transition AND “renewable energy”	1247	*sustainab* AND transition AND “shale gas”	27

2. Applying the transitions lens to unsustainable trends

Broadening transitions research to include the analysis of such changes requires drawing the boundaries of the field, i.e. defining which negative trends should be studied. We believe that two criteria are needed: 1) the environmental implications of the negative change should be – at least potentially – significant, and 2) the transitions approach should add new insights to analyses by other research communities (for example the sustainable consumption, transport and energy research fields).

The first point underlines the importance of appreciating the import of smaller changes that may develop into larger trends. Addressing the second point requires a demonstration of how the concepts developed in transitions research provide useful insights into the negative changes under consideration. For instance, the analysis of multi-dimensional struggles around sustainability transitions may offer analogies for the analysis of the discursive, legislative, technological and political fights around negative trends like hypermobility. Furthermore, exposing the systemic reasons and transformative implications of negative changes that might look unworthy of scrutiny, such as shifts to new products (e.g. cars increasing in size) or new models of provision (e.g. fashion cycles becoming shorter), can deliver new and important insights.

More generally, a major strength of transitions studies is their systemic approach, covering both production and consumption, and both technological and social aspects. For complex processes it may not be fruitful to separate these factors, which makes approaches that allow interrogation within a broader sectoral and temporal context better suited for the analysis. In a similar vein, we argue for the consideration of both sustainable and unsustainable trends within this framework. A contemporary example to illustrate the usefulness of this approach is the rapid rise of SUVs in the automotive market, which is happening at the very moment when car manufacturers are also bringing electric vehicles onto the market (ICCT, 2018). A historical example is that the beverage industry fought for the introduction of single-use plastic bottles on the production side while simultaneously campaigning against littering on the consumption side (Lerner, 2019). Using a transitions lens to analyse such parallel but contradictory processes could help to understand the dynamic relationships between them, as well as to critically assess the *sustainability* of sustainability transitions (Feola, 2019).

3. Directions for future research

We distinguish two broad questions for transitions research on unsustainable trends. First, how do such trends emerge and how could research help to prevent them? One central consideration is who is driving these changes: the power dynamics and likely trajectories (Geels et al., 2016) will be different if these actors are incumbents (as for SUVs), new actors (fast fashion) or new actors

financed by incumbents (fracking). Similarly important is whether the main sustainable and unsustainable trends of a sector involve the same companies (e.g. carmakers) or different ones (e.g. railway companies competing with airlines). Assessing the role of consumers as drivers of unsustainability may also be relevant, e.g. by looking at the elasticity of demand for various goods and services. The speed of change is another consideration as preventive strategies will differ between high-speed changes which require rapid intervention and low-speed changes which demand sustained attention. Speed depends on the inertia of technological and social systems: identifying the sources of inertia in different sectors and how it can be used to preserve sustainability and to fend off challengers are closely related topics. Existing research on regime resistance and failed sustainability transitions could provide useful analogies for preventive measures here.

The second broad question is how transitions research could help to reverse or divert ongoing unsustainable trends. When studying resistance to innovations, the role of civil society and social movements is pivotal (de Bakker et al., 2013d). How their strategies differ when they take on a nascent industry as opposed to an established one is an intriguing question. Public perceptions and governmental positions regarding these innovations can differ widely, partly because the benefits of adoption are so different (developing shale gas may enhance a country's geopolitical power; fast fashion's benefits relate primarily to hedonic enjoyment, social capital and commercial gain). Another reason for divergent views is differences in risk perceptions (Jasanoff, 1998). Research may expose how conflict between sustainability, on one hand, and established businesses, practices and lifestyles, on the other, can be locked-in – bringing socio-political upheaval one way or another. Whether negative trends can be stopped may also depend on whether the innovation modifies the institutional or infrastructural context in which it unfolds (Raven et al., 2016), with knock-on structural effects (e.g. SUVs taking away road space from alternative modes). Requests to modify existing structures (e.g. to increase the standard size of parking spaces (Spelsberg, 2018)) highlight opportunities for intervention: these decisions can speed up or slow down unsustainable trends.

How will transitions research change with more focus on negative trends? Considering a larger variety of changes calls for greater theoretical pluralism in transitions research (Hopkins et al., 2020). Sustainability transitions often begin with technologies, and research is frequently restricted to the analysis of how and why these technologies are adopted, or not. Conversely, preventing, stopping and reversing unsustainable trends is often about reducing certain types of production or consumption, which brings the analysis closer to post-growth research. This is in line with recent calls to critically examine capitalism in transitions research (Feola, 2019). A further benefit may be the bridging of two positions in sustainable consumption and production research: one focusing on the evolution of specific socio-technical systems which tends to overlook political economy aspects ('reconfiguration' position), and another that is radically critical of the deep structures of capitalist societies but has less to say about specific socio-technical systems ('revolutionary' position) (Geels et al., 2015).

4. Conclusions

Important unsustainability trends are currently ignored by sustainability transitions research, and this, we argue, needs to change. There is merit in applying the transitions lens to these developments, and we have sketched possible questions for future research in this commentary. Unless more effort is put into understanding ongoing unsustainable trends, transitions studies may not live up to their goal of "helping to move society in the direction of sustainability" (Köhler et al., 2019, p.2).

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