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Inertia and change related to sustainability – An institutional approach

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ABSTRACT

Despite increased awareness of environmental crisis and social inequity the world is becoming more, not less, unsustainable. Obviously there is great inertia, a disinclination to enact change, in for instance environmentally detrimental practices. While there is much in the literature to explain inertia at the individual, organizational and societal level, there is a gap concerning approaches that focus upon the industrial level. This paper addresses this gap by developing an analytical approach based upon institutional theory brought together with the ontological principles of strong sustainability. Two interrelated case studies, concerning greenhouse gas reduction in the Swedish agrifield, are used to develop the approach. The empirical results show that greenhouse gas reduction is used in support for convergent changes within the industry, for instance to motivate increased efficiency and yields. Hence, the paper contributes to the sustainable development-literature by providing an analytical approach that can be utilized to increase the understanding of change processes at the industrial level. This approach is then discussed and further developed to accommodate for the case results.

1. Introduction

Despite increased awareness of environmental degradation and increased inequity, the world is becoming more, not less, unsustainable. One example of this unfortunate unfolding is the failure to decrease global greenhouse gas (GHG) emissions. The potential for fulfilling the needs, both of the poor and future generations, is being reduced as climate change introduces tremendous and unmanageable effects on ecosystems (Rosenzweig et al., 2008; IPCC, 2013). Today, scientific consensus maintains that climate change is occurring, and that it is attributed to anthropogenic emissions of GHGs (IPCC, 2013; Oreskes, 2004; Rosenzweig et al., 2008).

Subsequently, climate change exemplifies the increasing gap between existing unsustainable activities and the changes science tells us are necessary (UNEP, 2013; Allen et al., 2009; Meinshausen et al., 2009). Obviously there is great inertia, a disinclination to enact necessary change, in unsustainable activities (e.g., Wittneben et al., 2012). While there is much in the literature to explain inertia at the individual level (e.g., Kollmuss and Agyeman, 2002; Padel and Foster, 2005), at the organizational level (e.g., Pataki, 2009; Post and Altman, 1994) or at the societal level (Daly, 2013; Hopwood et al., 2005; Mol and Sonnenfeld, 2000), explanations that focus on the industrial level are lacking. For instance, some explanations of climate change inertia view it as a "tragedy of the commons" (Dietz et al., 2003; Pfeiffer and Nowak, 2006). Here, game theory has been used to model the outcomes of individual decision making aggregated into larger patterns (Perc and Szolnoki, 2010). However, this theoretical perspective is difficult to apply at the industry-level because the occurrence of multi-point interactions in industries drastically increases model complexity. The lack of approaches that can offer industry-level explanations is troublesome as there are patterns of industrial activities that have a large effect upon sustainability. For instance, life-stock farming (Deckers, 2010), air travel (Buhr, 2012) and energy production result in substantial GHG emissions and, if they were transformed, important reductions could be the result. Moreover, due to continuous setbacks in the UNFCCC process, it seems that global agreements alone cannot drive necessary change. Hence, as endogenous change is needed at the industrial level, it is essential to theorize the mechanisms that generate inertia, but also change, here.

Although there are many potential starting points for developing industry-level explanations, institutional theory could be particularly useful (Hoffman, 1999; Wittneben et al., 2012). This is

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because, unlike much business theory, it is not based upon neo-classical assumptions, that industrial producers are monolithic, economically rational actors, but include collectively held ideas, values and beliefs in the analysis (Wittneben et al., 2012). Hence, social structures within industries, ontologically different from the aggregation of individual behavior, are assumed. The social structures recognized by institutional theory are of particular importance given the role that value-laden debate and discursive struggle play regarding climate change (Levy and Scully, 2007; Wade-Benzoni et al., 2002). Subsequently, institutional theorists view production activities as not only widespread but also meaningful to the producers within an industry. Drawing on Lounsbury and Crumley (2007: 995) "activity patterns across actors that are infused with broader meaning" are defined as *practices*. Within its industry, practice is generally considered as legitimate although outsiders may question it (Maguire and Hardy, 2009).

However, as institutional theory's main strength lies in explaining the diffusion of organizational practices (e.g., Greenwood et al., 2002; Munir and Phillips, 2005) rather than change processes linked to sustainability, adaption of the theoretical concepts is needed to increase the understanding of industry-level inertia and change. Subsequently, the purpose with this paper is to develop an institutional approach to increase the understanding of industry inertia, as well as change, related to sustainability.

The paper develops this approach through combining elements from the sustainability literature with institutional theory, resulting in an analytical frame. This frame is then illustrated and further developed through two case studies. The cases consist of industry change initiatives, i.e. formal projects set up to suggest measures and strategies to translate some sustainability issue into industry action. Change initiatives were chosen as cases because they exemplify how sustainability is currently addressed within an industry. Empirical material relevant to explain inertia and change should be more noticeable within them than in processes that are unrelated to sustainability issues. The paper contributes to the Sustainable Development field in the following three ways: First, it develops and examines a conceptual approach suggesting theoretical mechanisms explaining sustainability-related inertia and change at the industry-level. This conceptual approach can be applied in other industries and with other issues. Second, it shows how the understanding of industrial inertia and change can be increased by the analysis of change initiatives. Third, it shows how the principles of strong sustainability can be combined with institutional theory in the analysis of change.

2. Theoretical framework

Since the popular introduction through the Brundtland-report (WCED, 1987), Sustainable Development and sustainability have become widely diffused concepts both in practice and research. Associated social science has formed itself into a field involving e.g., organizational scholars (e.g., Orsato and Clegg, 2005; Pataki, 2009; Welford, 2013) as well as other disciplines (e.g., Carvalho, 2001; York and Rosa, 2003). Given its nature as a compromise between interests of continued growth and reduced environmental degradation, sustainable development has generated many different ideas regarding what constitutes a sustainable society (Hopwood et al., 2005). A common demarcation line is that between paradigms of weak (WS) and strong sustainability (SS) (Devkota, 2005; Gladwin et al., 1995). Containing different ontological positions as well as normative inclinations, these paradigms imply very different versions of inertia and change (Heikkurinen and Bonnedahl, 2013).

2.1. Weak and strong sustainability

WS holds that sustainability is achievable within market economy and capitalism, through economic growth. Needed are reforms that de-couple growth from environmental consequences, e.g., eco-efficiency, eco-innovations and green consumerism (Kallio et al., 2007). New technologies, facilitated through entrepreneurship and investments, will decrease environmental impacts alternatively increase the resilience of societies, avoiding catastrophes. WS mainly trusts market actors to act on the business case for sustainability but is somewhat compatible with the idea of policy steering investments towards green growth. In relation to organizational strategy and practice, WS sees change through a win–win frame (Kolk and Pinkse, 2004), ignoring the mass of vested interests, e.g., big coal/oil/gas, that are locked into unsustainable business models (Levy and Egan, 2003). Rather than radical changes in industrial practices, e.g., abandoning GHG–intense production, WS implies reform, working with industry to increase eco-efficiency and facilitate "green" innovation. More radical change is seen as unrealistic (cf. Orsato and Clegg, 2005).

SS, in turn, argues that the current economic system is incompatible with finite ecological boundaries (York and Rosa, 2003; Næss and Høyer, 2009). The growth imperative, inherent to the capitalist system (Spangenberg, 2010; van Griethuysen, 2010), is viewed as continuously offsetting any relative improvements through rebound effects (Sanne, 2001). Capital freed through cost reducing eco-efficiency improvements is re-invested thereby accelerating resource exploitation and waste production. Moreover, countries put forth as role models of eco-modernization also carry the largest ecological footprint because of their consumption (WWF, 2012). Thus there is little empirical support for the claims of a dematerialization of growth (York and Rosa, 2003). SS instead advocates transformative changes, for instance the move to a steady state economy or reducing the scale of the economy (Daly, 2005; Devkota, 2005). At the core lies the rejection of the interchangeability between natural and man-made capital, which separates it from WS (e.g., Costanza and Daly, 1992; Kallio et al., 2007). This rejection means that depleting natural capital cannot be compensated by increased growth in man-made capital. Rejection could either be based upon eco-centrism, i.e., that nature has an inherent value (Naess, 1973), or the anthropocentric concern that humans cannot do without critical eco-system services (Ekins et al., 2003). Hence, SS assumes that natural and man-made capitals are complements. The loss of fish or trees cannot be replaced by more fishing nets or chain saws, and the eco-system services provided by natural capital, e.g., a non-toxic atmosphere, cannot be provided by man-made technology (Costanza and Daly, 1992). Moreover, Daly argues that in today's "full" economy; natural capital has become the limiting factor (2005). From this follows that putting a price on eco-system services and allocating them through markets cannot be the only solution, since natural capital must be kept at a certain level. Because the mere scale of economic activities, and their growth, is what causes decline in natural capital, this scale needs to be limited too (Costanza et al., 1997; Daly, 1990).

The two paradigms result in two different interpretations of inertia and change (see Table 1): WS prescribes change in the shape of reforms, whilst inertia e.g., consists of lack of appropriate technology, industry cost-structures, weak knowledge transfer or lack of investment funds that could support such efforts. However, WS's principle outlook is positive, believing that inertia can be overcome. Much focus is devoted towards describing and debating technological solutions and their benefits (Kallio et al., 2007; Hopwood et al., 2005). SS, on the other hand, sees reform as insufficient because fundamental principles of market economy, e.g., economic growth, counteract positive reforms (Spangenberg, 2010). At the