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Unleashing sustainability transformations through robust action

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ABSTRACT

Shifting to dramatically more sustainable systems is an unconventional or wicked problem, encompassing multiple actors, disciplines, and values. Yet to date, sustainability initiatives have been tackled primarily by means of conventional managerial approaches. We contend that these approaches are ill-suited for achieving sustainability transformations. We propose an alternative approach founded upon the sociological concept of robust action. In robust action, leaders embrace ambiguity (rather than striving for clarity), focus on short-term accomplishments (rather than long-term goals), and are satisfied with oblique movement (rather than linear progress). We elaborate on three robust strategies—participatory architecture, multivocal inscription and distributed experimentation—and investigate their effectiveness in three sustainability related contexts: wind power, sustainability reporting and microcredit. We conclude by discussing the applicability of robust action to other contexts, and the complementarities between robust action and other forms of leadership towards sustainability.

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1. Introduction

Sustainability, commonly defined as meeting the needs of the present without compromising the ability of future generations to meet their needs (WCED, 1987), is increasingly a cardinal concern for many stakeholders (Markard et al., 2012). Governments and international organizations have long been interested in sustainability, resulting in significant investments in poverty alleviation, economic development and environmental protection efforts, among others. More recently, individuals, corporations, nonprofits and other actors also have become involved in such efforts. This engagement has fostered a range of activities, including social entrepreneurship (e.g. Grameen Bank, Kickstarter), standard setting initiatives (e.g. Global Reporting Initiative, LEED), institutional redesign (e.g. B Lab, 1% for the Planet), and private transnational governance initiatives (e.g. Forest Stewardship Council, Fair Labor Association), among others. Speaking to this diversity. Paul Hawken, in his book Blessed Unrest, observed that sustainability concerns have given rise to the largest movement in world

http://dx.doi.org/10.1016/j.jclepro.2015.06.064 0959-6526/© 2015 Elsevier Ltd. All rights reserved. history, involving on the order of one million organizations globally (Hawken, 2007).

At the same time, the organizations that comprise this movement, which typically have little formal power, authority or resources, are confronted with numerous technical, relational and temporal challenges related to sustainability (Garud and Gehman, 2012). Nonetheless, their relatively small-scale localized efforts have in some cases generated grand-scale outcomes, several of which have been well publicized and justifiably lauded (e.g. Miller et al., 2012; Prahalad, 2005; Yunus, 1999). Clearly, there is much to be learned by studying individual success stories. Moreover, with the growing amount of studies and evidence already amassed, consolidation of existing cases into a cohesive and coherent leadership framework is not only the next logical step but a worthy objective of research (Colquitt and George, 2011; George, 2014; Margolis and Walsh, 2003).

In this paper, then, we draw upon prior research in a variety of settings and contexts to describe and substantiate a model of leadership by means of which individual organizations can foster grand-scale sustainability transformations. We first motivate our departure from orthodoxy by observing that "unconventional" thinking appears central to many of the success stories of sustainability transformations. We then build upon recent theoretical work that has proposed "robust action" as a viable approach to tackling grand challenges (Ferraro et al., 2015), while noting the

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relative paucity of empirical analysis in that study. Here, we seek to provide initial evidence of the viability of the robust action approach by extending and elaborating three key robust strategies—participatory architecture, multivocal inscription and distributed experimentation—and then investigating their application in three exemplary case studies: wind power, sustainability reporting and microcredit.

Our study employs an exploratory (rather than hypothetico-deductive) approach. We proceed by analyzing, through the lens of robust action, these three well-known success stories in order to discern the extent to which leadership activities consistent with robust action were pursued. Through a theoretically grounded reexamination (e.g., Allison, 1972) of existing empirical cases, our analysis underscores the possibility that robust action can be effective for organizational actors engaged in systemic sustainability transformations. We conclude by examining some contingencies governing the likely effectiveness of robust action, and the extent to which it might complement other sustainability approaches, namely common pool resource management (Dietz et al., 2003; Ostrom, 1990) and the framework for strategic sustainable development (Ny et al., 2006; Robèrt et al., 2002).

2. Conventional management and its limitations

Conventional management is often construed as a relatively linear and orderly activity, typically conducted by a "rational" planner who strives to attain well-defined targets or solutions. Established in the mid-twentieth century as a discipline through the pioneering work of Herbert Simon, Igor Ansoff and others (Andrews, 1971; Ansoff, 1965; Chandler, 1962; Simon, 1947), advocates of conventional management have developed and refined a methodical, well-defined process through which organizational goals can be attained. A recent exemplar of conventional management is the Balanced Scorecard:

A company begins by developing a strategy statement and then translates it into the specific objectives and initiatives of a strategic plan. Using the strategic plan as a guide, the company maps out the operational plans and resources needed to achieve its objectives. As managers execute the strategic and operational plans, they continually monitor and learn from internal results and external data on competitors and the business environment to see if the strategy is succeeding. Finally, they periodically reassess the strategy, updating it if they learn that the assumptions underlying it are out-of-date or faulty, starting another loop around the system. (Kaplan and Norton, 2008: 65)

This managerial approach, which proceeds in an orderly manner from planning to acquisition of resources to execution while monitoring, learning and improving is a curricular mainstay among business schools and management faculties worldwide, as well as countless corporations and other entities (Cabantous and Gond, 2011; March, 2011; Mintzberg, 2004).

Many scholars have, however, noted the limitations of these approaches (e.g. Rittel and Webber, 1973). A first set of objections arises from simple observation: empirically, managers seldom resolve problems as prescribed (Mintzberg, 1973). Planning and management, as enacted by managers, is, in reality, more likely to be emergent, as opposed to deliberate, occurring alongside or even subsequent to action, as opposed to preceding it (Cohen et al., 1972; Mintzberg, 1987). A second set of objections suggests that rational planning is too narrowly prescribed, overly oriented towards exploitation of existing competencies rather than exploration of new innovations (March, 1991). Indeed, innovation is difficult to generate hierarchically; in organizational contexts it tends to

emerge at the nexus of non-hierarchical links of multiple organizational types employing diverse populations of experts (Garud et al., 2013; Powell et al., 1996), making its management via conventional paradigms extremely challenging. Overarching these knowledge and control limitations, and perhaps even more problematic, is the tendency of managerial attention to be directed towards near term objectives and narrow incentive structures rather than towards multifaceted goals (Dobbin and Jung, 2010; Reich, 2008; Slawinski and Bansal, 2015).

In short, organizations are too complex, contingencies too numerous, and unexpected developments too frequent for one or a small number of persons to plan and manage with a clear grasp of causes and effects. When managers grapple with large, intricate and long-term scenarios, their planning capabilities become increasingly limited:

Would Boeing really have benefited from careful analyses in the mid-1960s of the prospective return on investment from development of the 747? An analyst would have had to anticipate the oil shock, the globalisation of world markets and the development of the aviation industry through to the end of the century. Anyone who has built models of these kinds, or scrutinised them carefully, knows that the range of possible assumptions is always wide enough to allow the analyst to come up with whatever answer the person commissioning the assessment wants to hear. (Kay, 2004)

The inevitable inability to plan and manage "conventionally" for such long-term scenarios is even more apparent when one considers the pursuit of sustainability. Large scale sustainability issues like poverty, illiteracy and social justice as well as climate change, biodiversity loss and other forms of environmental degradation are essentially wicked problems, in which "one cannot understand the problem without knowing about its context; one cannot meaningfully search for information without the orientation of a solution concept; one cannot first understand, then solve" (Rittel and Webber, 1973: 162). These problems are vaguely defined, rather than specific; goal attainment cannot be unambiguously articulated; interdependencies are the rule rather than the exception; and, span of formal control is lesser than the scope of the challenge (Cash et al., 2006).

Conventional management is largely ineffective for resolving wicked problems not merely because the sheer amount of data that needs to be processed and analyzed is overwhelming, but also because trade-offs are inevitable, preferences and values are unknown and often conflicting, stakeholders appear and disappear over time, boundaries are unclear, hierarchy is absent, more than one "planner" is attempting to solve "the problem," and activities designed to resolve the problem modify the problem itself (Dietz et al., 2003; Lindblom, 1958; Reinecke and Ansari, 2015; Verweij et al., 2006). The necessary preconditions underlying the applicability of conventional management simply do not exist in the context of wicked problems, not only at the level of individual organization, but perhaps even more importantly, at the level of public policy and regulations (Dorf and Sabel, 1998; Sabel and Zeitlin, 2012). But in that case, how can organizations help foster large-scale sustainability transformations?

3. An alternative model

Noting that conventional management approaches appear to be falling short when applied to the domain of sustainability, Ferraro et al. (2015) recently theorized an alternative model for addressing *grand challenges*, based on the premise that "the fundamental principles underlying a grand challenge are the pursuit of bold ideas and the adoption of less conventional approaches to tackling

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