



From my perspective

Achieving environmental sustainability: The case for multi-layered collaboration across disciplines and players



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ABSTRACT

The sustainable development (SD) paradigm challenges global production and consumption, and the legitimacy of corporations. In this paper we examine corporate responses to legitimacy challenges posed by SD. Corporations initially responded to SD with “eco-efficiency” and corporate social responsibility. More recently, we observe a process of multi-layered collaboration that we here call “hybridization”. In this approach corporations meld their interests with those of key stakeholders – government, political actors, public, consumers, and non-governmental organizations – in the process of achieving environmental sustainability. This exploratory study describes several examples of the hybridization strategy. We explore how corporations are being transformed by hybridization and also transforming the capitalist system in the process.

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1. Introduction

Over the past quarter century, scientific evidence has multiplied suggesting that much of the deterioration in our earth systems is caused by patterns of human activities (Rockström et al., 2009; Thomas et al., 2004). It is expected that by 2042 the world population will grow to 9 billion and the global economy will likely triple in size, along with a doubling of pollution and waste. Carbon concentration in earth's atmosphere is already over 390 ppm and increasing, which is considered risky by scientists. Unless these numbers are reduced dramatically they will cause catastrophic global warming (Busch and Shrivastava, 2011).

Despite the variety of responses from government, corporate, and civil society sectors, there is mounting evidence that future generations will continue to face important challenges in achieving environmental sustainability (ES). Large amounts of nitrogen are active in the environment causing substantial harm to aquatic and terrestrial ecosystems productivity. Large-scale contamination of rivers and other water bodies and the massive water demand is resulting in water scarcity. 2.5 billion people are without access to hygienic sanitation due to lack of solid waste disposal and recycling systems. Every year, 50 million barrels of oil are transformed into 500 billion plastic bags, millions of which wash up on beaches and coastlines. Annual generation of construction and demolition waste is enormous. World energy consumption remains 85% dependent on nonrenewable fossil fuels, and their combustion

emits billions of tons of carbon in the atmosphere every year (Xu et al., 2010; Rockström et al., 2009).

A significant organizational literature has emerged to address these challenges of environmental sustainability (e.g., Hoffman and Bansal, 2012; Jermier, 2013; Korhonen and Seager, 2008; Welford, 1995). However, this literature has been characterized by a normative, instrumental, compliance-driven, and profit seeking approach (Rodríguez-Melo and Mansouri, 2011). Generally analyzed in the larger context of the triple bottom line performance goals of large public companies (Savitz and Weber, 2006; Schneider and Meins, 2011; Tang et al., 2012), research on management of ES focuses more on what organizations *ought to do* as opposed to what *actually happens* at the corporate, governmental and institutional levels.

This article addresses the latter situation. We highlight the new tendency that is emerging in the type of response given by corporations to environmental sustainability demands: a new form of organizing we call hybridization. In biology and in chemistry, hybridization concerns the mixing of elements. In our case, hybridization refers to economic, social, and institutional melding of corporate and stakeholder interests, resulting in new organizations and organizational forms. By doing so, we are participating on the on-going debate between the short-term need to maintain the strategic position of particular players – individuals, countries, or companies – and the long-term requirement for a comprehensive response that addresses humankind's economic necessities and environmental sustainability.

We start by describing the main ES demands on corporations and the corresponding pressures of legitimacy exerted on corporations, non-governmental organizations (NGOs), and governments. This is

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followed by the introduction of hybridization as a recent response to legitimacy pressures. We then detail two main hybridization forms: organizational metamorphosis and organizational cocooning. We conclude by discussing the implications for corporations and its stakeholders.

2. Environmental sustainability demands and legitimacy pressures

The discourses of environmental sustainability touch corporations, NGOs, and governments in many ways. Corporations are the key vehicles of wealth creation, employment, and source of products for consumers. Governments are involved in ES because they set the rules of economic and political engagement over ecological and social issues. They provide infrastructure and governance services for production – raw material, emissions and waste, consumer safety, and international coordination. Non-governmental organizations (NGOs) have arisen, especially in developing countries, to become a third sector that adds capacity for delivering social and ecological programs to wider audiences than can be reached by government and corporate sectors.

Environmental sustainability implies an understanding that the economic needs of a given group or society cannot lead to the unlimited depletion of natural resources necessary to attain those same needs for all. That is why ES imposes strict demands on economic activities.

2.1. Environmental sustainability requires control of carbon

There is emerging scientific consensus that sustainability will require reducing carbon accumulations to avoid global warming. Corporations are the main vehicle for material conversion and source of carbon. ES requires reform of corporate production and consumption practices to reduce their carbon footprint and emissions (Pachauri, 2008). NGOs in the environmental and consumer education sectors impact carbon footprints by supporting carbon efficient products and technologies, educating consumers, and addressing social barriers to carbon-intensive practices. Governments impact carbon footprint by regulating extraction and use of raw materials including fuels, subsidizing low carbon technologies while taxing carbon intensive ones, and also by allowing strategic carbon-intensive industries to maintain their business models in order to keep jobs and revenues in the short-term and by ignoring calls for the urgent curb on carbon emissions.

2.2. Environmental sustainability involves maintaining “stocks” of natural resources

Extracting resources from natural systems must be limited within the carrying capacity of ecosystems, in order to avoid their collapse. There are natural limits to extraction and growth. Corporations need to find business models that are not premised on unrestricted and eternal growth (Daly and Farley, 2010; Daly, 2007; Pachauri, 2008). NGOs typically operate closer to on-the-ground realities of development issues than the government. Their presence among the people who are recipients of development services implicates them in natural resource issues in very personal and physically proximate ways. They play a central role as protectors or monitors of environmental resources. Government agencies directly control natural resource exploitation through laws and regulations pertaining to mining and extractive industries, agriculture and animal husbandry practices, and harvesting of forest and marine ecosystems. They are responsible to keep the balance between exploitation of natural resources and protection of jobs and investments.

2.3. Environmental sustainability requires transitioning to renewable energy sources

In this transition both the producer companies (generation and transmission) and consumers (large corporations) can play important roles. Renewable energy production using solar and wind technologies

can occur economically at smaller scale. So bigger corporations who are large consumers of energy can now begin to produce energy for their own needs. Some companies such as Google, BMW, and Apple have started transitioning to renewable energy for their own operations (Smith and Sweet, 2013). NGOs can play a vital role in the transition to renewable energy through education and micro financing renewable energy projects, and by pressuring heavy-consumers to find alternative energy paths. The government's main role in transitioning to renewable energy is removing subsidies in non-renewable energy sources and supporting renewable energy production while allowing for economic development in the short-term.

2.4. Environmental sustainability requires responsible consumption

Environmental sustainability requires responsible consumption, especially in the highly developed economies of the West, which are rife with over consumption and waste. Corporations have built their business models on assumptions of continued perennial growth in material consumption. They spent more than US\$518 billion in 2013 in advertising to promote further consumption (Barnard, 2012). They are now being challenged to find ways of remaining financially viable while not fuelling material consumption. NGOs are well positioned to educate consumers on the harms of overconsumption and offer alternative approaches that limit material consumption while improving health and well-being. Governments can create educational programs to promote responsible consumption as well as use fiscal tools to redirect consumer behavior and patterns.

3. Legitimacy pressures exerted on corporations, NGOs, and governments

Legitimacy in the field of organization studies has been conceptualized in relation with cultural, general public, and organizational acceptance or support for another organization, given its compliance with generally accepted norms, values, and beliefs (Dowling and Pfeffer, 1975; Habermas, 1975; Meyer and Rowan, 1977; Singh et al., 1986; Suchman, 1995). Different stakeholders can ascribe different legitimacy levels to different organizations and can also vary the degree of legitimacy they confer to the same organization over time (Monin and Croidieu, 2012).

As the sense of ecological crisis is increasing, different stakeholders are seriously questioning the legitimacy of many of the current economic concepts and systems. With it, the purpose of the organizations that result from those concepts and systems – such as corporations, NGOs, and governments – is at stake. At the macro level both capitalist and statist (communist) economic systems are challenged by their increasingly untenable growth assumptions. At the *meso* level, corporate business models premised on neo-classical economic assumptions have become indefensible (Krugman, 2009). New discursive formations are emerging to explain change processes in transition to sustainability (Pesch, 2015).

3.1. Corporations

The corporation's purpose is being discussed by their different stakeholders. Shifts in hitherto mostly unchallenged social understandings of norms, values, and beliefs have often led to corporations finding themselves between different conceptions of their role in society; all demanding them to demonstrate they are legitimate and that they deserve the confidence of all stakeholders as well as the right to exist.

Stakeholders, such as customers, NGOs, and society at large, are mostly concerned about the social purpose of corporations, and are thus the first source of corporate legitimacy. They demand socially responsible behaviors, including eco-efficient products, environmental respect, and ethical conduct. To become legitimate in the eyes of these stakeholders, corporations have to respond to these concerns.

In addition, corporations must also respond to legitimacy pressures coming from shareholders and government. Although some shareholders are concerned by the long-term prospects of their investments – and the impact environmental problems can have on them – today’s financial markets that, in effect, represent them, are mostly focused on short-term results and profits. This justifies the reluctance shown by some corporations in implementing environmentally friendly measures, which are seen as a burden in terms of profitability and efficiency. A third source of legitimacy is government. In order to be legitimate to governments, corporations must not only abide by the law and pay taxes but also promote growth and create jobs. Corporations are instruments that allow politicians to fulfill their promises and governments to pursue their economic and social policies.

3.2. NGOs

Also NGOs are subject to legitimacy concerns. Donors, the media and supporters have the capacity to challenge their purpose and activities. Indeed, NGOs have also started to feel criticism and pressures to demonstrate the value of their purpose and to actively engage in the defense of the causes aligned with the beliefs braced by their supporters. Sponsors and donors demand for concrete results, which is not compatible with inflexible stances that do not solve the impending issues they support. Otherwise, NGOs risk their legitimacy next to their supporters. On the other hand, NGOs with strong funding from government, business, and international organizations have themselves become large in size and complex in bureaucratic structures. Their ability to be responsive to the needs of the people has been compromised as a result, leading to the questioning of their purpose and legitimacy (Scherer et al., 2013).

3.3. Governments

In pluralist democratic societies, government legitimacy is always in question. The political process of periodic elections is a way of ensuring maintenance of legitimacy through public mandate, albeit dangerously biased towards the short-terms imposed by election cycles. However, governments and politicians are legitimate to the extent that they defend the causes supported by the people they represent, both short- and long-term. Individuals and society at large expect governments to create legislation and conditions to avoid the escalation of sustainability problems. On environmental issues government legitimacy has come under increasing pressure because they grant licenses, permits,

subsidies, and financing to businesses, which may cause environmental harm.

On the other hand, the short-term demands combined with the willingness to win elections expose governments and politicians to legitimacy pressures coming from corporations. As we have seen above, governments use corporations as a means to pursue their economic and social policies. In order to accept such demands as legitimate, corporations pressure governments and politicians for support in the form of legislation and regulations that foster their business objectives.

4. Hybridization as a response to legitimacy pressures

Given the above-described inter-dependency between corporations, NGOs, and governments, as well as their need to become legitimate, it is expected that they search for more solid means of collaboration. Below, we identify three different stages in their responses (see Fig. 1).

4.1. Stage 1 - no collaboration in the absence of perceived crisis

Until the 1960s the environment and the consequences of damaging it were not a major concern for the public and corporations simply because world population (about 3 billion then) was less than half of today. Corporations were mostly concerned with consolidating their strategic positions and in maximizing returns for their shareholders. Corporate obligations towards society were to offer products and/or services demanded by their customers, pay salaries to their employees and pay taxes to governments. The rest was left for governments, who were supposed to create adequate legislation and norms to cater to society’s needs, including the need for economic growth and employment. Corporate interaction with NGOs was uncommon because there were few NGO besides religious charities, and corporations and NGOs spoke completely different languages. Corporations made little effort to interact with governments concerning environment: legislation was not abundant and so there was no need to try to influence it.

Those concerned about the environment formed NGOs such as Greenpeace and the World Wildlife Fund (WWF), but were labeled as anti-business or anti-employment extremists (Carson, 2002). Mass protests were often interpreted by Western governments and corporations as political, and not environmental. Moreover, protesters and NGOs alike had no interest in collaborating with corporations: their job was to pressure them the most they could. There was no will to compromise.

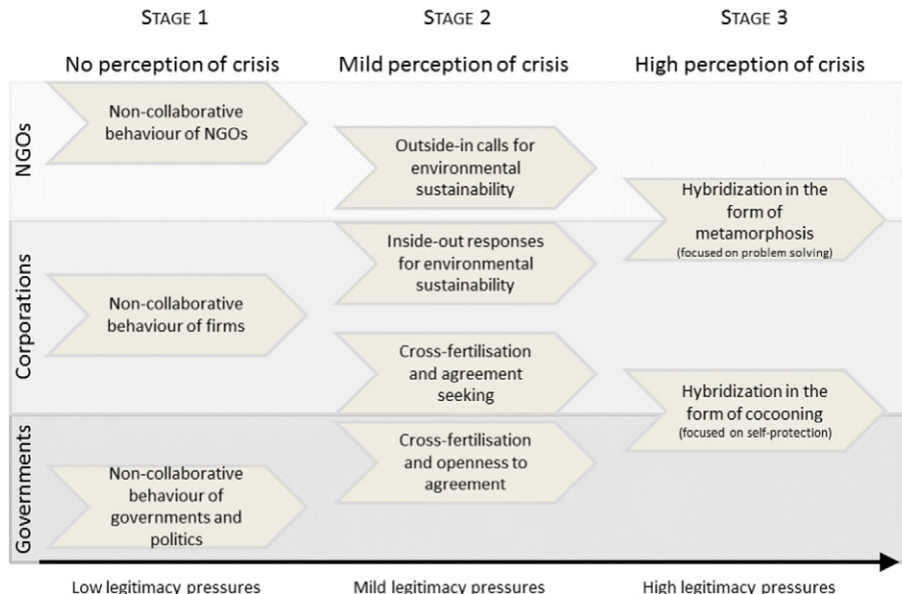


Fig. 1. Process of collaboration in face the perception of crisis.

The objective was to create momentum in what was perceived to be a win-lose relationship.

Governments' role was to provide laws and regulations, collect taxes, and set the stage for economic development of companies. They would not pressure corporations beyond the strict need to follow laws, and they would resist demands from corporations to bend/change rules because there were relatively few rules to bend.

There was no general perception of an impending environmental crisis, mostly justified by lack of information and ignorance. However, public awareness started to change, albeit slowly. Rachel Carson's book *Silent Spring* first raised awareness of the environmental effects of DDT. The first UN Conference on the Human Environment, the 1972's Stockholm Conference, brought the topic of environment to the international agenda. Then, events such as the 1979 Three Mile Island nuclear accident led to mass demonstrations.

4.2. Stage 2 - traditional responses to legitimacy pressures

The combined effect of this growing awareness of environmental issues, was intensified by the 1984 Bhopal industrial disaster, the 1986's Chernobyl nuclear accident, and 1989's Exxon Valdez oil spill. New scientific revelations concerning global warming, and increased media exposure of environmental disasters and the effects of climate extremes have raised the level of general public awareness concerning environmental crisis.

In response to these developments, corporations have started to participate in the ES debate. World Business Council for Sustainable Development (WBCSD, originally *Business Council for Sustainable Development*) was created in 1990 at invitation of Maurice Strong as a way for businesses to participate in 1992 Rio Earth Summit. Forty-eight business leaders represented the voice of business. Over the past decade the UN Global Compact has emerged with its principles for responsible corporate behavior, responsible investing, and responsible management education to encourage corporate engagement with sustainability.

Corporate responses are captured by two concepts: eco-efficiency and corporate social responsibility (CSR). Concerning eco-efficiency, corporations have responded to demands of sustainability by seeking win-win techno-economic solutions. They look for opportunities in which they can reduce waste, modify product and process designs, or change operational practices that simultaneously also save money. The 3M's "Pollution Prevention Pays" is an archetype of this response. The company funds projects that reduce pollution while saving money. Over the past two decades companies have found many areas for such savings such as energy, raw materials, recycling, resource pooling, and bulk purchasing, amongst others. The field of "environmental management" is replete with strategies and suggestions for eco-modernization of corporations (Hoffman and Bansal, 2012).

Concerning CSR, companies have engaged in a variety of programs encompassing social, cultural, and educational projects in the communities in which they operate. There is a long history of corporate philanthropy and social responsibility programs (Kotler and Lee, 2008; Porter and Kramer, 2006). Both these approaches have been effective in some measure, but there are decreasing returns to engaging in them. There are also natural limits to the arenas in which these approaches can be applied. Eco-efficiency works in operations and logistics arenas, and CSR works best in social expectation and relationship management. Neither approach addresses political nor legitimacy concerns posed by environmental concerns related with sustainability.

In turn, NGOs have tried to respond to criticism by making efforts in terms of transparency, demonstrating their independence from governments and businesses. Greenpeace, for instance, states in its website that they "do not accept money from either companies or governments, (...). Individual contributions, together with grants, are the only source of (...) funding". They conclude by affirming "Our independence gives us the authority we need to effectively tackle power, and make real change happen" (Greenpeace website, 2006). At the same time, NGOs

have reinforced their efforts in communicating their commitment and corresponding activities to their supporters and by trying to attract the media attention to their activities. WWF uses different media, such as outdoor advertisements, television programs, ads, but also social media like Facebook, to convey its message and support its campaigns.¹ NGOs have also increased their partnerships with corporations and governments by co-participating in events promoted to address sustainable development related problems, such as the early 1992 Rio Conference or the recent 2012 Rio + 20 UN Conference on Sustainable Development.

Governments and politicians responded to the legitimacy pressures coming from the public and NGOs by openly creating legislation and regulations that were welcomed by their electors. In the US a whole slew of social and environmental laws were passed (e.g. Clear Water Act, Clear Air Act, Endangered Species Act) in the 1970s and government agencies (e.g. Environmental Protection Agency [EPA], Consumer Protection and Safety Commission) created to oversee them. Internationally, Brazil and Costa Rica enacted legislation to protect rain forest resources. The Kyoto Protocol was signed in 1997, establishing specific targets and deadlines to reduce global greenhouse gas emissions. In Europe, the Aarhus Convention² paves the way for increased transparency in terms of granting public access to environmental information held by authorities, the right to participate in environmental decision-making, and the right to legally challenge public decisions made without the knowledge and consent of both individuals and their organizations. At the same time, governments become active participants in global events relating to ES and the environment, such as the aforementioned Rio + 20 Conference.

However, governments and politicians also have to respond to legitimacy pressures coming from corporations. As such, they reacted positively to the request for participation issued from corporations. Governments and politicians sought the participation of corporate representatives to define new environmental standards and regulations. For instance, after the Bhopal industrial disaster in 1984, the Chemical Manufacturers Association in conjunction with the US Environmental Protection Agency (EPA) developed legislation for chemical plant safety. Governments fostered the open discussion of environmental issues with corporate representatives in an attempt to reach a middle ground between voters and business' demands.

These responses allowed for some collaboration between corporations, NGOs and governments (central area of Fig. 1). From opposing and stand-alone positions, each player was able to move to a less radical position in search of some compromise (Hemmati, 2002; Stadler, 2012). However, this also created some contradictions for business corporations. On the one hand, corporations had to reach agreements with NGOs and individuals to curb the effects of their actions on the environment. On the other hand, corporations collaborated with official entities in order to preserve their short-term interests.

4.3. Stage 3 - hybridization - a new response to legitimacy pressures in periods of crisis

In light of increasing demands from their stakeholders, and under a high perception of an impending environmental crisis, some corporations are currently responding by deeply embedding their interests with stakeholders' interests, to create new social and organizational structures. Borrowing from biology and chemistry, we call this process of growing integration, hybridization.

Corporations enter this process by engaging with NGOs, on one side, and governments on the other, to create hybrid solutions (right side of Fig. 1). These new structures are especially used in difficult areas, where there is a high perception of crisis and mounting legitimacy

¹ To see some of these campaigns log in to <http://www.wwf.org.uk/>.

² To see more details about the Aarhus Convention go to <http://ec.europa.eu/environment/aarhus/index.htm>.

pressures, where traditional approaches do not work any longer. By collaborating, co-opting, and assimilating with NGOs and government agencies, firms overcome resistance and enlist them into an assimilative relationship, to overcome the legitimacy pressures. Conversely, both NGOs and governments may engage with corporations to address legitimacy pressures coming from their own stakeholders.

In a world that is so replete with competing interests and conflicts hybridization is a novel strategy for finding ways around conflicts. Hybridization is not a single act or event but rather a process spread over time and space. It has been witnessed and studied in various technological contexts such creation of hybrid vehicles and systems (Lim et al., 2015). Hybridization is thus a process of inter-organizational convergence that leads to the creation of a single, unitary, and legitimate organizational entity. It is designed to absorb key elements of oppositional actors and interests in such a way that it allows for the emergence of legitimate solutions in hitherto confrontational situations. To avoid stalemate or gridlock, hybridization seeks to combine competing interests and agencies to form new hybrid organizations, groups and networks.

5. Different hybridization forms responding to particular legitimacy claims

Conflicting legitimacy pressures coming from different stakeholders lead to different forms of hybridization. We distinguish between hybridization in the form of organizational metamorphosis, in which new organizational forms are created to solve problems affecting society, and hybridization in the form of cocooning, in which such integration is in-bound oriented and directed at preserving the current situation. Cocooning thus reflects a defensive approach that prevents genuine positive changes towards ES.

5.1. Hybridization as organizational metamorphosis

New hybrid entities emerge from the reinterpretation of the roles of both corporations and NGOs in the larger societal context. The resulting entities take new shapes and purposes, best suited to respond to ES demands. In times of high perceived crisis, society pressures NGOs to act, consumers use the power granted by their monetary votes to influence corporate decisions, and shareholders want to protect their investments, now threatened even in the short-run.

The new hybrid entity's capacity to reach a solution defines the ability of the original parties to remain legitimate in the eyes of their stakeholders. These new organizations collect from the original parties the tools that enable them to reach a solution while, at the same time, they keep aside the organizational elements or characteristics that were preventing agreement. If successful, the new hybrids serve as conveyors of legitimacy for the original parties: NGOs remain as legitimate protectors and controllers of their causes and corporations are granted extended legitimacy by their stakeholders to operate in society.

The following are two examples of hybridization in the form of organizational metamorphosis.

5.1.1. NGO + corporate hybridization

In a core area of ES – environmental conservation – many environmental conflicts have reached a stalemate. This impasse has problematized NGOs' own legitimacy in the eyes of their supporters. So, cross-sectional “collaborative” solution-making has become an important strategy for environmental NGOs.

The Boreal Forest Agreement, which was signed in May 2010, offers an example of successful collaboration among traditional adversaries (corporations versus environmental NGOs), in the context of hybridization by the form of organizational metamorphosis. It resulted from a partnership between the Forest Products Association of Canada, its 19 member companies, and seven leading non-government environmental organizations. It is the world's largest conservation initiative covering 73 million hectares of public forests. Environmental groups

stopped boycotting the forest companies and the companies suspended logging on 29 million hectares of boreal forest. Simultaneously, the groups developed action plans for the recovery of caribou herds and produced ecosystem-based best practices forest management guidelines. Adopting a multiple stakeholders approach (including aboriginal groups, communities, and municipal, provincial and federal governments) they develop joint forestry management plans.

At the same time, the fact that these new hybrids are independent organizations protects involved NGOs (such as Canadian Parks and Wilderness Society, The Nature Conservancy, and Forestethics) from being accused of colluding with corporations and of compromising their “independent” watchdog monitoring role. Their reputation as credible negotiators and partners with businesses is secured by the new hybrid arrangement.

5.1.2. Multi-party (consumer-NGO-corporate) hybridization

Multi party coming together in ownership to co-create stakeholder value is an interesting form of hybridization. Yukiguni Maitake Co. (YMC), Ltd. signed a joint venture agreement with Grameen Krishi Foundation (GKF) for establishing a new social business in the field of agriculture. The joint venture aims to produce high quality mung beans in Bangladesh for both domestic consumption and export to Japan. The objective of this venture is to enhance income of the farmers, particularly for the village women who will be engaged in the processing of mung beans for the export market. It will also improve availability of low cost protein in local markets. The company will also offer healthcare services and scholarships to children of farmers, as well as bring new technologies to the farmers.

Grameen Foundation is probably the most prolific creator of this type of hybridization. It has been instrumental in creating new organizations, joint ventures, and collaborations, fostering the emergence of several companies that are co-owned by Grameen NGO subsidiaries, community self-help groups, and major multinational corporations.

5.2. Hybridization as organizational cocooning

The second form of hybridization results from the need to protect short-term interests for governments, politicians and corporations. The integration of interest is motivated by the desire to protect the status-quo from competitive forces that challenge the incumbent players, be it politicians or corporations. Suffering high legitimacy pressures due to stakeholders' high perception of environmental and social crises, corporations seek rescue by politicians and government agencies. They seek protection against restrictive legislation or regulations that can impair their business models and hamper their competitiveness in the short-run. On the other hand, governments and politicians use corporations as tools for job creation and growth.

This interdependency favors the emergence of integration between government, politicians, and corporations. Justified by the government's need of new growth and job creation opportunities, corporations try to influence laws and regulations by actively participating in the legislative bodies (being part of the solution instead of part of the problem). Meanwhile, politicians and former government members often join the corporations they had previously controlled in their roles as regulators. These movements make it difficult to distinguish the political from the corporate realities. The resulting new organizational forms are not clear in terms of their purposes or intentions.

Industry level hybridization between government agencies and corporations can be exemplified in the recent BP oil spill in the Gulf of Mexico. Recent investigations revealed the deep connections between the US Minerals and Mining Service (MMS) and the oil industry. The spill was caused because the oil-rig lacked a remote-control acoustic shutoff switch. This switch is routinely used by rigs in Norway and Brazil as the final defense against underwater spills. After a spill in 2000, the MMS issued a safety notice saying that such a back-up device was essential in a drilling system. The industry opposed this ruling in 2001.

Corporate experts doubted the capacity of this type of system to provide a reliable emergency backup and acknowledged that acoustic systems are not recommended because they are very costly. The system costs about \$500,000 per rig. By 2003, government regulators decided that the matter needed further study (Freudenburg and Gramling, 2012).

One explanation of this lax safety attitude of MMS is that under the Bush Administration this agency essentially became part of the private oil companies that it was supposed to regulate, with obvious conflicts of interest. Previous oil industry executives were in key executive positions at the MMS. Department of Interior's Inspector General Report showed numerous ethical failures at MMS. MMS believed that they were "exempt from the rules that govern all other employees of the Federal Government." They said they adopted a "private sector approach to essentially everything they did." This included "opting themselves out of the Ethics in Government Act." On at least 135 occasions, they accepted gifts and gratuities from oil and gas companies with whom they worked. One of the employees had a lucrative consulting arrangement with a firm doing business with the government (Restore the Gulf, 2010).

6. Discussion and conclusion

As the world copes with multiple interconnected crises involving our global ecosystems, and global financial systems, organizations will continue to face increasing legitimacy challenges. In coping with these challenges businesses, governments and NGOs find themselves in strange and uncertain engagements with each other. Easy solutions or the "low hanging fruit" like eco-efficiencies and CSR are already being pursued, but they are limited by technology and conventional risk-benefit calculus. Moreover, since most companies have started adopting these practices, they do not serve to distinguish a company. Understanding the available options and developing sensible strategies requires us to comprehend how organizations can collaborate, partner, or combine their interests and forms to most effectively meet societal demands. Managers seeking deeper redress to legitimacy questions will be well served by considering possibilities of hybridization.

Hybridization in the form of organizational metamorphosis offers interesting possibilities through a deeper engagement and melding of corporate interests with stakeholders interests. Mutually beneficial and long lasting hybridization can emerge through careful planning, building trust relationships, and transparency in processes. We acknowledge that this form of hybridization has the potential for corrupting traditional boundaries between different sectors and the securities that their separation ensured. Moreover, it should be noted that hybridization is not a strategy equally available to small businesses and entrepreneurs, it is biased in favor of large established companies. Its potentially corrupting influence on political systems is another liability worth examining. But with due caution and open-eyed engagement, hybridization offers opportunities for transforming corporations and their business models to more sustainable forms.

On the other hand, cocooning is motivated by self-preservation. Instead of meeting demands of ES it denies the challenge to preserve the short-term interests of involved parties.

As such, the diverse, almost conflicting, consequences arising from hybridization makes it a double-edged sword and deserves special attention from organizational researchers and managers. It can be used to help corporations to genuinely meet demands of ES, and it can also shelter corporations from making meaningful changes. The challenge remains finding ways of using hybridization to enhance trust between sectors, within a vision of business, government and community sectors working to harmonize human-nature relations (Bromley et al., 2012). Nonetheless, hybridization raises interesting questions that could deserve further research:

1. Are current legal definitions of corporation sufficient to capture organized institutional energies that go into maintaining their interests?

Are there proactive legal approaches that help better specify the scope of corporations?

2. Changing alliances and relationships between corporations and their stakeholders erode some of the traditional roles (e.g. monitors, watchdogs, independent mediators, etc.) of the latter. What institutional alternatives can compensate for this erosion?
3. While cooperation between corporations and its stakeholders can be a positive development, are the benefits of these alliances shared equitably? What intergenerational equity issues emerge in hybridization and how should they be addressed?
4. Are there any patterns of hybridization emerging in different sectors – agriculture, food, oil, defense, consumer products, technology, etc.?
5. Although cocooning strategies appear as self-preservation measures against mounting pressures towards SD, can they evolve into metamorphosis? Can the mechanisms of inter-organizational collaboration triggered by cocooning strategies be positively reframed towards metamorphosis?

This article identified an understudied corporate response to ES. We acknowledge the tentative nature of this analysis. It is limited to exploring a novel and emerging construct, and providing a few examples. Hybridization of corporate interests with other stakeholders is likely to become wider and deeper as pressures of sustainability increase. These pressures are mounting year by year. They are also expanding in scope from ecological and economic actions to social, technological, cultural, and personal domains. Companies are likely to experience heightened and diverse forms of legitimacy pressures and higher likelihood of potential crises in coming years. Understanding hybridization could help craft better policies and regulations for moving corporations towards environmental sustainability, and also help companies to craft sustainability strategies. We close with a word of caution: hybridization is amenable to both social innovation and co-creation of novel organizational forms, as well as cloaking true responsibilities, preserving status quo, and preventing changes towards sustainability. It should be invoked with great care and vigilance on part of companies, NGOs and government agencies.

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