

# We are all stakeholders of gaia: A normative perspective on stakeholder thinking

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**We Are All Stakeholders of Gaia:  
A Normative Perspective on Stakeholder Thinking<sup>1</sup>**

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## **We Are All Stakeholders of Gaia: A Normative Perspective on Stakeholder Thinking**

### **Abstract**

This essay takes the normative perspective that we, including humans, institutions and enterprises, other living beings, and ecological systems, are all stakeholders of a core focal entity—the Earth conceived as the living system Gaia. The argument is that for the purposes of considering the long-term health and wellbeing of humanity, Gaia rightly should be conceived as the ultimate focal entity with a huge variety of other living beings, systems, and future generations, whose wellbeing is also at stake in the relationship. This perspective highlights the ways in which Gaia affects and is affected by her various stakeholders. It incorporates a rationale for such thinking that relies on recognizing the normative elements of stakeholder theory, particularly those that derive from interactions of stakeholders and planetary elements. It presents a framework of mutual influence and interdependence, with implications for the ways in which humanity needs to act with respect to Gaia.

### **Biography**

Sandra Waddock is Galligan Chair of Strategy and Professor of Management at Boston College's Carroll School of Management. Widely published on corporate responsibility and citizenship, she was a co-founder of the Initiative for Responsible Investing (now at Harvard Kennedy School's Hauser Center), has served as editor of the *Journal of Corporate Citizenship*, and was the 2004 recipient of the Social Issues in Management Division of the Academy of Management Sumner Marcus Award, the 2005 recipient of the Aspen Institute's Faculty Pioneer Award for External Impact, and 2011 winner of the Organizational Behavior Teaching Society's Bradford Outstanding Educator Award. Author of more than 100 published papers, her most recent books are *SEE Change: Making the Transition to a Sustainable Enterprise Economy* (with Malcolm McIntosh) and *The Difference Makers*, both from Greenleaf.

### **Key words**

Sustainability  
Environmental destruction  
Stakeholders  
Stakeholder theory  
Stakeholder set  
Natural environment  
Ecocentrism  
Anthropocentrism  
Planetary Perspective  
Future generations  
Co-evolution  
Focal entity

## **We Are All Stakeholders of Gaia: A Normative Perspective on Stakeholder Thinking**

In this essay, I take the normative perspective that we, including humans and the various institutions and enterprises that we have created, future generations, other living beings, and ecological systems, are all stakeholders of a core focal entity—the Earth, conceived as the self-regulating and living system that Lovelock termed Gaia (Lovelock, 2000). We are all stakeholders of the Earth’s capacity to sustain life as we know it. For long-term considerations, such as the survival of humanity, or the health and wellbeing of natural systems and nature’s living beings other than humans, the corporation, organization, and even whole societies are at a too low level of analysis. From this point of view, because we as humans are interactive and interdependent with the other living beings and ecosystems on Earth for our survival and thriving, I argue that we need to take a long-term perspective on the wellbeing of humanity and the other living entities of the planet that has heretofore been lacking (see also, Shellenberger & Nordhaus, 2004; McKinney, Kick & Fulkerson, 2010).

From this perspective, the Earth itself is conceived as a living entity in Lovelock’s Gaia hypothesis (Lovelock, 2000), and should be the focal entity for (long-term) stakeholder thinking, not a human institution. Just as the needs and interests of stakeholders have to be taken into consideration for the long-term success of (non-human but) man-made enterprises like corporations, so too the needs of those living beings and eco systems affected by and who affect (the classic definition of stakeholders) the planet and its ability to sustain living conditions suitable to future generations need to be taken into account. Thus, in this paper, I argue for a different level of analysis and focal entity for long-term stakeholder thinking with respect to the wellbeing of Earth’s inhabitants. Ultimately, I will try to argue for a perspective that highlights the ways in which Gaia affects and is affected by her various stakeholders in classic stakeholder theory terms (e.g., Freeman, 1984).<sup>2</sup> This position relies on two core aspects of stakeholder theory, i.e., 1) that stakeholders to an entity are interactive and mutually influential, and 2) that they are interdependent, interconnected, and interrelated. These ideas will be elaborated below.

Let me first state what this paper is *not* attempting to do. This paper is *not* about giving voice to the Earth (Gaia) as a stakeholder. Since the premise is that Gaia becomes the focal entity, neither is it about considering Gaia to *be* a stakeholder. For the sake of completeness, I will, however, briefly review past literature on these issues, which have heretofore been the focus of debate about the role of the natural environment in stakeholder theory. Rather, the paper is about placing Gaia as the central or focal entity (e.g., on the typical stakeholder spoke and wheel diagram or as the focus of a complex network of related entities). This perspective aims to take the long-term wellbeing of human civilization and that of other living entities, as the important consideration for a Gaia-centric perspective on stakeholder interactions. In this view, the key issue, the stakes for humanity and the Earth’s other living beings and ecosystems, if you will, is whether the Earth can continue to support life as we know it. Of course, self-interest suggests that humans (you and I) are particularly interested in the long-term wellbeing of human civilization. It is precisely because human civilization, human institutions, and human actions are both affected by and affect Gaia’s life supporting capacity and because human wellbeing is

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<sup>2</sup> Thanks to Reviewer 4 for his/her helpful comments on this framing.

interdependent with the wellbeing of other ecosystems that makes *us* stakeholders of Gaia, along with the world's other living beings.

Fundamentally, then, the core argument is that for the purposes of considering the long-term health and wellbeing of humanity, Gaia rightly should be conceived as the ultimate focal entity with a huge variety of other living beings, ecosystems, and future generations, whose wellbeing is also at stake. Granted Earth is not a corporation or manmade organization, or even an institution. But by the Gaia hypothesis, Earth is itself actually a self-regulating living system (Lovelock, 2000), and one that affects and is affected by the activities of those living beings and ecosystems that it spawns and interacts with. The classic definition of a stakeholder is any group or individual (and to this list I add system) that affects or is affected by the [focal entity] (Freeman, 1984; Freeman, Harrison & Wicks, 2007; Freeman, Harrison, Wicks, Parmar & de Colle, 2010). Certainly from the definitional perspective of 'affecting' and 'being affected by,' we can call humanity—and the world's other living beings and ecosystems—stakeholders of Gaia. We can also consider Gaia to be the focal entity. Whether Earth's conditions support the survival and wellbeing of human is in the long term is considerably more critical (particularly to humanity) than the ways in which corporations manage any given stakeholder relationship. Below I will try to develop and make sense out of these ideas, but first I will briefly review the extant literature on Earth as stakeholder.

### **Background Literature: Previous Stakeholder Thinking about the Natural Environment**

The corporate responsibility literature is replete with discussions about companies and their interactions with their stakeholders (e.g., Freeman, 1984; Clarkson, 1995; Mitchell, Agle & Wood, 1997; Rowley, 1997; Berry, 2003; Freeman, Wicks & Parmar, 2004; Freeman, Harrison & Wicks, 2007, Freeman, Harrison, Wicks, Parmar, and de Colle, 2010, among many possible examples). It is also filled with models aimed at producing greater sustainability through more holistic approaches to business and the natural environment, and critiquing the current still-largely neoclassical economics model that drives most businesses (e.g., Stubbs & Conklin, 2008; Brown, 2009). Some authors (Stubbs & Conklin, 2008) offer new approaches to developing the firm so that it is less harmful to nature, and, from a values-driven perspective, attempts to better balance economic, social, and ecological interests. Others (e.g., Zsolnai, 2006) focus explicitly, as this paper also does, on the normative implications of stakeholder theory, while still others offer plans for dealing with the current ecological situation in a more sustainable way (e.g., Brown, 2009). Stakeholder theory tends to focus its discussion around corporations, or at least human-built organizations and enterprises, as focal entities. A running controversy in this line of work surrounds the question of whether the natural environment can or should be considered a stakeholder. A second issue is, if the environment is to be considered a stakeholder, whose 'voice' should represent its interests? Although these questions become moot with respect to the proposition that places Gaia as the focal organization, past discussion of key issues deserve some attention so that the current argument can be differentiated and placed in the context of the literature.

## Natural Environment as Stakeholder

There has been an on-going academic conversation about whether the natural environment should be considered to be a stakeholder. Most of the discussions suggest that the natural environment is different from other stakeholders because it is not ‘human’ (c.f., Starik, 1994; Phillips & Reichart, 2000) or lacks ‘consciousness’ (Norton, 2007). Starik (1994), however, argued that not only is the natural environment vital to businesses, but that the construct of stakeholder itself goes beyond strictly human, political, and economic dimensions. Including the natural environment as a stakeholder creates, in Starik’s view, a more holistic understanding of the stakeholder set (Mitchell, Agle & Wood, 1997; Crane, Matten & Moon, 2008). Norton (2007) contends similarly that the natural environment should be accorded stakeholder status at least from financial markets, because of fundamental requirement that there be ecosystem stability for markets and the firms on which they rely to function properly (see also Haigh & Griffiths, 2009, for a perspective that incorporates climate change). In contrast, Phillips & Reichart (2000) note that there is no basis in stakeholder theory for considering the natural environment to be a stakeholder, but that there are good reasons on other moral grounds to take into account the interests of the natural environment (see also Orts & Strudler, 2002).

Arguing from a legal perspective, in contrast, Brown Weiss (1990) asserts that the integral relationship between humanity and the natural environment is a fundamental stakeholder relationship. Humans are uniquely able to affect the natural environment through the conscious choices that we make. This ability, she claims, means that we bear ‘a special responsibility to care for the planet’ (Brown Weiss, 1990, p. 199). Conversely, one could note that environmental events (e.g., hurricanes, tornadoes, flooding, severe weather of many kinds, and earthquakes) certainly affect humans and other living beings and ecosystems of the earth, thus meeting the fundamental requirement of stakeholder status (more on this aspect below). Further, Driscoll & Starik (2004) argued that the natural environment should be considered a ‘primordial’ stakeholder, because of its *proximity* or essentiality to humankind. These authors added the attribute of proximity to the salience model of stakeholder relationships developed by Mitchell, Agle & Wood (1997), which emphasized stakeholder attributes power, urgency, and legitimacy as core to determining stakeholder salience, and which has also helped frame the conversation about who and what entities can be considered stakeholders. Other scholars (e.g., Carroll, 2004) simply *assume* that the natural environment is a stakeholder, as Windsor (2002) points out, acting ‘as if’ the natural environment were a stakeholder because of the practicality of so doing.

Although a (human and other) life supporting natural environment is the very ‘ground’ on which all of human civilization depends, and is the source of all of our resources, and indeed of life itself, we do not need to assume that Earth is a stakeholder to place it as the focal entity of interest in the version of stakeholder thinking advanced here. Neither Gaia nor corporations (or any other organization) are human beings. Further, putting the Earth in the center of stakeholder thinking as the focal entity does not suffer from the same problem as defining the environment itself as stakeholder. In fact, neither the typical focal entity—the corporation—*nor* Gaia is human; neither has consciousness in the traditional sense, or a ‘voice’ with which to speak for its own interests (c.f., Phillips & Reichart’s, 2000, critique of Starik, 1995).

It must be granted that Gaia's stakeholders are also *part* of the living system constituting the Earth conceived as Gaia. But that situation is no different than that of the corporation, which can in fact be considered to be constituted by *its* primary stakeholders (employees, suppliers, investors, and customers) (Clarkson, 1995; also, Berry, 2003). Without these stakeholders, the corporation does not exist. In the same vein, without the living beings and ecosystems that constitute the planet as Gaia (v. being a dead planet), Earth could not be considered to be the living and self-regulating system that Lovelock calls Gaia. Corporations rely on humans to speak for them, and so, in many ways, does Gaia, as do other non-human (or future) stakeholders to be discussed below. But that raises another frequently discussed issue, that of voice for stakeholders.

### **Voiced or Voiceless**

Placing Gaia as the focal entity in long-term stakeholder thinking is important because it provides a lens that can take into account future generations of humans, whose voice cannot be 'heard' in any normal way, and also allows for other important but non-'voiced' stakeholders. Any entity that is interested in sustainability—as most large corporations claim to be these days—and uses the fundamental definition of the Brundtland Commission—is implicitly suggesting that future generations (typically of human beings) are stakeholders. The Brundtland Commission issued its famous report in 1987 and defined sustainable development as 'development that meets the needs of the present generation without compromising the ability of future generations to meet their own needs' (Brundtland Commission, 1987, p. 24). Authors who are attempting to develop comprehensive models of stakeholder theory sometimes incorporate references to future generations' interests (e.g., Wheeler & Silaanpää, 1998), despite their lack of (current) voice. Zsolnai (2006), for instance, argues for a normative interpretation of stakeholder thinking and points out that 'Business organizations affect the fate and survival of natural ecosystems and the life conditions of present and future generations, thus nature, society, and future generations should be included among the stakeholders of business' (Zsolnai, 2006, p. 37). Arguably, then they should also be considered stakeholders of Gaia.

There is no indication that all of these groups need to have 'voice' to be considered stakeholders. Indeed, nothing in Freeman's (1984) original definition appears to require voice (see also Laplume, Sonpar & Litz, 2008; Buchholz, 2004). As a reviewer of a previous version<sup>3</sup> of this manuscript noted, there are many people in the world who are stakeholders of various organizations despite not having any voice, so a having a voice is not a prerequisite to stakeholder status. For example, this list might include people who are speech impaired, or people who choose not to speak. It could also encompass the two billion plus people at the so-called bottom of the pyramid are not able to effectively communicate and are effectively voiceless in a political or power sense, yet can still be considered stakeholders of many multinational companies, governments, and, as argued here, Gaia.

Interestingly, ACCA (Association of Chartered Certified Accountants), which bills itself as the 'global body for professional accountants,' recognizes the relevance of voiceless stakeholders, including future generations in one of its technical papers called 'All About Stakeholders' (Campbell, 2008). Voiceless stakeholders can make only 'indirect claims'

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<sup>3</sup> Thanks to Reviewer 4.

because of their lack of voice, but Campbell nonetheless points out that such claims are still valid from an accounting perspective. He notes that that such voiceless claims may exist because of power differentials, because of the voiceless nature of the entity (e.g., future generations and the natural environment), or because of distance from the focal entity. He further notes that the core problem associated with giving validity to these unspoken claims is one of interpreting those claims properly. In another example, fisheries and wildlife practitioners and scholars are developing ways of taking the interests of future generations considerations into account in their management of fisheries and gaming areas, at least conceptually (see Decker, Krueger, Baer, Knuth & Richmond, 1996; see also, Sumaila & Walters, 2005).

In her discussion about intergenerational equity, Brown Weiss (1990, p. 201-202) further argues that ‘our planetary obligations to future generations are owed to all the earth’s future human inhabitants, whoever they may be’ (Brown Weiss, 1990, p. 206). All of this reasoning suggests that from the Gaian perspective on planetary wellbeing, the state of non-renewable resources (e.g., extraction of oil and minerals from the Earth), though voiceless, also matters.

### **A Gaia-Centric Perspective on Stakeholder Thinking and Planetary Wellbeing**

A planet that supports life (pretty much as we know it) as the focal entity is important to humanity despite the risk of ‘weav[ing] a basket big enough to hold the world’s misery’ (Clarkson, 1994, cited in Phillips & Reichart, 2000). In fact, it is exactly that weaving that needs to be comprehended to justify the present perspective, as will be discussed below, but that is largely missing from the current discourse on environment (for reviews, see e.g., Dunlap & Catton, 1979; Buttel, 2003). Stakeholder relationships, as defined in the literature, are generally characterized by two core elements: 1) interaction and resulting mutual influence, and 2) interdependency, interconnectedness, and interrelatedness (e.g., Fassin, 2009; Kaler, 2002; Mitchell, Agle & Wood, 1997). These elements will be discussed in more detail below.

Informed by past literature, then, the basic premise argued here is that there are two fundamental reasons why a Gaia-centric perspective that places Gaia as the focal entity, and the rest of the Earth’s living beings and ecosystems as stakeholders, makes sense. Aside from avoiding the anthropomorphism that has characterized much past thinking (Jermier, 2008; see also, Hoffman & Sandelands, 2005), the most fundamental definition of stakeholders as offered by Freeman (1984) is that stakeholders affect or are affected by the focal entity, that is, stakeholders and the focal entity are *interactive* with respect to each other. A consequence of this interactivity is mutual *influence*, which means that inter-actors have some ability to ‘affect’ or change others, a factor that is core to stakeholder status. Further, Earth and its inhabitants and ecosystems are all *interdependent*, *interconnected*, and *interrelated*. Table 1 summarizes this rationale, which will be discussed in more detail below.

### **Interactive and Influential**

The first assumption of stakeholder theory is interactivity resulting in the power to influence (e.g., Freeman, 1984; Freeman et al., 2007, 2010; Freeman & Reed, 1983; Freeman & Gilbert, 1987; Savage et al., 1991; Wicks et al., 1994). As noted earlier, ‘affects and is affected

by' is a core aspect of the fundamental definition of stakeholder relationship offered by Freeman in his original work (1984), as well as in follow-up work. Note that there nothing in this definition about either having voice or humanity as necessary conditions of stakeholder status. Instead, stakeholder status accrues from the interaction itself, and the ability of one element of that interaction to influence another. The relationship between Earth and its inhabitants—whatever their status—is inherently an interactive one that can be based on theories of quantum physics, biological epigenetics, and ecology, which represent multiple levels of interaction, one actor's activities necessarily influence others and vice versa (e.g., Capra, 1995, 1983; Nicolis & Prigogine, 1989; Prigogine & Stengers, 1984; Davies, 1984; Lipton & Bhaerman, 2009; Brown, 2009)

Despite differences at the macro level with which we are familiar from the quantum level, in biology the emerging science of epigenetics tells us that biological change is a co-evolutionary process of interaction and mutual influence between the genetic material in a living being and its environment (Lipton & Bhaerman, 2009). Similarly, ecologists note the interactions that occur at a more macro, planetary level (Brown, 2009; McKibben, 2010; Lovelock, 2002). The clear implication is that living beings and ecosystems are interactive and mutually influential with respect to their broader environments. There need be no *voluntary* engagement (Mitchell, Agle, Wood, 1997) for this interaction to occur, nor, necessarily does there need to be trust or even a capacity to 'voice' the impacts. What is fundamental is the interaction (and, as shall be discussed in the next section, the inherent interdependence). Let us briefly explore the interaction that occurs between Gaia and its many stakeholders, including those without voice or humanity.

The main premise of stakeholder theory that there is interactivity between Gaia and earthly living beings and ecosystems results in mutual influence between stakeholders and the focal entity, not voice or, necessarily, human status. Interactivity implies synergist activity, that is, the working together of two or more things, typically for positive sum outcomes in the two plus two equals five sense. Interaction can result in something new or different from what previously existed emerging from the interaction. Sometimes in complex systems the outcome itself is more complex or of a higher order than that of the inputs (e.g., Gleick, 1989; Prigogine & Stengers, 1984). Although is not essential that there is a (human) consciousness behind the interactions that occur in stakeholder relations, the ideas have generally been applied to human organizations. Typically, then, (human) consciousness has been assumed to be necessary. Interactivity, however, simply implies action of some sort, something that constitutes or results in observable impact, or something that can be observed, such as a movement or a change (Latour, 2007). This interaction neither implies nor needs intention or consciousness to be real and observable.

For example, some ecologists believe that the Earth can optimally support a planetary population of humans in the range of 1.5-2 billion (Daily, Ehrlich & Ehrlich, 1994) at a reasonable quality of life. Others paint a gloomy future for humanity if the current system does not change significantly (e.g., McKibben, 2010). Lovelock (2007, 2010) argues that the current path of humanity will take us to a population much reduced from the current nearly seven billion people (a quadrupling since 1900) to as low as 500 million people scattered in distant locations around the world because of the impact of human-induced climate change on civilization. If the

Gaia hypothesis is correct that the Earth has somehow been able to create a balanced set of conditions over the past millennia that allow for the existence of life as we know it, many climate change scientists and ecologists (e.g., IPCC, 2007; Brown, 2009; McKibben, 2010; Lovelock, 2010) now believe that the balance may be tipping in a direction that will make that life as we know it difficult if not impossible in the future.

But one does not need to believe that human-induced climate change is real to see the inter-active effects of Gaia and humanity. Even without the prospect of climate change, we know that the still-increasing population of humans on the earth, which is projected to stabilize around nine billion people by around 2050, assuming no catastrophes of the sort that Lovelock (2007, 2010) predicts, places considerable stress on Earth's resources. Among the many sustainability issues aside from climate change facing the planet, its living beings, and its ecosystems are deforestation, destruction of rainforest (which is a CO<sub>2</sub> sink, among many other ecologically beneficial activities), desertification, erosion of topsoil, pollution of rivers, streams, and lakes with fertilizers and run-off from farming and industrial animal husbandry, and habitat destruction for wildlife and plants. To this list, we could add ongoing species extinction among land and marine animals, fresh water scarcity, overfishing of marine resources, destruction of the seabed and its many living beings and ecosystems from trawling, oceanic pollution and vast 'dead zones' in oceans where nothing lives, to name just a few of our planetary ecosystem's issues.

Many of the world's problems have come about from human interaction with the environment (see, e.g., Shwom, 2009; Kasper, 2009) or what Hoffman and Sandelands (2005) characterized as a human-centered (anthropocentric) view of humanity's relationship to nature (see also Brown, 2009). Such human interactions with nature have involved, for example, clear cutting of forests, or oceanic bottom trawling that can wipe out fish populations, as well as destroying the seabed's capacity to support microscopic sea organisms that form the base of the food chain. The BP oil rig explosion and months-long spill in the Gulf of Mexico, clearly a human-induced change to the ecology of that area (or earlier, the Exxon Valdez spill in Alaska), affected marine and coastal life in untold ways. Other anthropogenic environmental disasters that have affected Gaia as well as humans include the nuclear radiation released by the Fukushima nuclear reactors after the massive 9.0 earthquake and subsequent tsunami in Japan in early 2011, the Chernobyl nuclear power plant explosion in Russia, the gas leak by Union Carbide in Bhopal, where human and ecological impacts are still being felt, and the Three Mile Island near nuclear disaster, among others. By many accounts associated with both population growth and climate change, humanity is clearly affecting Gaia (e.g., IPCC, 2007; Brown Weiss, 1990). More general problems of deforestation (e.g., clear cutting or burning), desertification, the impact of mass production-oriented systems of agriculture and animal husbandry, and extractive activities (e.g., oil and mineral uses, the blowing up of mountain tops to reach minerals, not to mention industrial accidents that affect local ecosystems) are among the many instances of human and corporate activities that obviously have an impact—and mostly not a positive one—on Gaia.

Just as important, events spawned by the natural environment can certainly affect human life and civilization, as well as other living beings, ecosystems, and future generations. Think, for example, of the impact of Hurricane Katrina and other storms on the citizens, ecosystems,

and businesses of New Orleans and other nearby communities where they hit (e.g., Fussell & Elliott, 2009; Sastry (2009); Elliott, Hite & Devine, 2009; Englund, 2005; Burton & Hicks, 2005; Pielke, Gratz, Landsea, Collins, Saunders Musulin, 2008). Consider the earthquake in Haiti and its human, social, ecological, and economic costs (e.g., Cavallo, Powell & Becerra, 2010) or the December 26, 2004 tsunami in Indonesia (Asian Development Bank, 2006). Consider the impacts of the massive earthquake in Japan in 2011, on the Fukushima nuclear reactors (noted above), but also on the numerous people swept to their deaths, the devastation of local communities and indeed the whole of Japan, as well as impacts on global supply chains supplied by manufacturers in the affected area, which serves to demonstrate the level of connectedness among many of today's human systems. Cyclones, hurricanes, heat waves, droughts, cold spells, tornadoes, torrential downpours, flooding, massive snowstorms, and earthquakes are a few of the (problematic for humanity) ways in which natural events affect human (and other) life on Earth.

Natural events affect not just individuals or communities, but also business enterprises and their capacity to sustain themselves as going concerns (c.f., Brown Weiss, 1990). Consider the disruption in many global supply chains resulting from the 2011 Japan earthquake. Further, climate change is expected to seriously and negatively impact the insurance industry, because of potential impacts on coastal populations, and because the real impact of climate change is the emergence of increasingly destructive and powerful weather patterns. Water availability has long been critical to many companies, but as population has grown and put more demand on limited fresh water resources, companies' need for water creates issues such as those faced by the Coca Cola Company when it was accused of depleting local water resources in India and had to significantly change its own water policies toward water neutrality.<sup>4</sup> In contrast, in some sections of the world, e.g., in the US during the spring of 2011, massive flooding with all its devastation has, some experts think, become the 'new normal.'<sup>5</sup>

The many corporate sustainability programs now in place are at least partially responses to environmental changes (or expectations of such changes) that affect humanity and provide clear indicators of the centrality of life supporting conditions on Earth to human survival. In addition to being interactive with respect to each other and hence mutually influential, the interaction between Gaia and its stakeholders is thus one of mutual influence and co-evolution (c.f., Rowley, 1997; Frooman, 1999, with respect to corporation-stakeholder influence strategies). Inter-activity between Gaia and its stakeholders, however, is closely tied to the interdependence that also characterizes these relationships, as will be discussed below.

### **Interdependent, Interconnected, Interrelated**

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<sup>4</sup> See, e.g., <http://www.indiaresource.org/campaigns/coke/>, for a critique of Coke's water use in India; a CNN report on Coke's water policies, <http://money.cnn.com/magazines/fortune/mostadmired/2010/snapshots/100.html>, and Coca Cola's positioning on its website, [http://www.thecoca-colacompany.com/citizenship/conservation\\_partnership.html](http://www.thecoca-colacompany.com/citizenship/conservation_partnership.html), accessed 2/8/11.

<sup>5</sup> For example, the Huffington Post claimed on May 19, 2011, that floods and droughts are the 'New Normal' of US weather patterns, posted at: [http://www.huffingtonpost.com/2011/05/19/floods-droughts-extreme-weather-us\\_n\\_864046.html?utm\\_source=DailyBrief&utm\\_campaign=051911&utm\\_medium=email&utm\\_content=NewsEntry&utm\\_term=Daily%20Brief](http://www.huffingtonpost.com/2011/05/19/floods-droughts-extreme-weather-us_n_864046.html?utm_source=DailyBrief&utm_campaign=051911&utm_medium=email&utm_content=NewsEntry&utm_term=Daily%20Brief), accessed 5/19/11.

The second theoretical characteristic of stakeholder theory is interdependence, interconnectedness, and interrelatedness between stakeholders and the focal entity (Fassin, 2009; Kaler, 2002; Mitchell, Agle & Wood, 1997; Bowie, 1988; Clarkson, 1995; Evan & Freeman, 1988). Related to these concepts is the idea that stakeholders can make demands or claims on the focal entity—or vice versa—often because some risk is involved in the relationship (Clarkson, 1995; Langtry, 1994; Hill & Jones, 1992; Evan & Freeman, 1988).

Quantum physics (e.g., Capra, 1995; Davies, 1989) combined with complexity theory (e.g., Gleick, 1987; Prigogine & Stengers, 1984; Wheatley, 1992) tells us two important things that relate to the Gaian perspective on stakeholder theory. First is that at the quantum level everything is connected. Ecology takes the idea of system interconnectedness to the more macro level that we know in day to day life. What happens to one entity or system intricately affects what happens in other entities or systems, sometimes in obvious ways and other times in ways that are subtle or not really noticeable at our macro level. The underlying connectivity is something that ecologists have long known as they explore the relationships among species and the ecosystems that support them (e.g., Brown, 2009).

This perspective becomes critically important when thinking about the increasingly fragile ability of Gaia to support life as we know it today. Consider the food chain as an example. When huge dead zones exist in the ocean with tons of garbage swirling around them, even microscopic and other small organisms that might otherwise exist in the deep ocean cannot survive. Since these organisms are food sources for other larger oceanic living beings, the demise of micro-organisms then puts these larger living beings and ultimately whole ecosystems at risk, and so on up the food chain. The species that live(d) in such ecosystems are interdependent with respect to each other and outside that ecosystem with respect to other living beings that interact with the larger ecosystem. Whether it is immediately recognizable or not, the ecosystems and living beings of the Earth form a complexly interconnected network that weaves together the possibility of sustaining life reasonably as it is known today, providing that nothing pushes the system over some tipping point (Gladwell, 2000) or hitting some tipping point that makes sustaining those conditions impossible (c.f., Capra, 1995; Lovelock, 2007, 2010).

Secondly, complexity theory suggests that as systems evolve, they typically become more, not less complex (Gleick, 1989; Prigogine & Stengers, 1984). Life on Earth has evolved from simple one-celled organisms to the manifest complexity and dynamism of life forms we know today. This complexity has evolved through the synergistic interactions and interdependencies that exist in the food chain and among the living beings and ecosystems on the planet, with the water, air, and earthly resources of the planet (see also, Brown, 2009). The emerging biological science of epigenetics suggests that it is an intricate weaving together of genetic material with environmental pressures and dynamics that produce changes in organisms (Lipton, 2005; Lipton & Bhaerman, 2009). Similarly, some have argued for coevolution as a research framework for studying the complex interactions of organizations and nature (Porter, 2006). We need not go as far as the theocentric view offered by Hoffman & Sandelands (2005) to recognize that interdependence is a core characteristic of the relationship between humans and nature, although the perspective taken here is most likely, in their terms, eco-centric.

At the more macro level, it is easy to see similarly that changes in one system produce change in others, because of the interconnectedness of living (and, actually, nonliving) entities. To take a human example, the advent of the cell phone has dramatically already changed and continues to change how, when, and why people communicate in ways that could hardly have been predicted in, say, 1950 when home-based telephones were the norm—a relatively simple system. Cell phone technology and the capacity to access the ‘cloud’ of web-based computing will further change connectivity in the future. Further development is likely to create even more complexity of interrelationships among humans than currently exists—as people not only call to talk with each other, but also access the internet, send text messages, take and send photographs, play and record music or other events, and so on—a much more complex system.

In making a normative argument for stakeholder theory, Zsolnai (2006) proposes that ecosystems are ‘supra-individual entities,’ that is, they are comprised of numerous individual entities and have an existence and life of their own. Because they are living entities, they also deserve consideration as stakeholders of Gaia (Zsolnai, 2006). Ecosystems are things like fisheries, forests, lakes, oceans, and plains that can either support the resources that humans need or not (though obviously they do not necessarily exist for the benefit of humanity). From the perspective of a Gaia that supports human civilization, ecosystems can support a wide diversity of life forms that are essential to human wellbeing, but that exist in a long chain of life from the smallest phytoplankton, bacteria, fungi, and other species to highly evolved mammals like human beings. I would add that societies, too, can be considered ecosystems because they are both distinct entities themselves with their own unique characteristics and are also part of the bigger set of interrelationships that link everything on the planet. The global ‘community’ that exists today for humans is perhaps the most complex form of organizing that has yet developed, yet it is exactly that complexity that is threatened if we do not take our stakeholder status to Gaia more seriously.

As the Gaia hypothesis suggests, to the extent that Earth itself has been able to create and sustain the conditions that support life, it too acts like a living system comprised of numerous interdependent parts for its wellbeing (Lovelock, 2000, 2007, 2010). This increasing complexity means that like people, systems themselves generally grow more complex as they develop, and thus the interrelationships and interconnectedness among the components are themselves more complex. Humans, for example, are more complex than are most other mammals, and many mammals are more complex than other types of organisms. The global community now connected via the internet is more complex than a village or town, and the village, city, or town is more complex than, say, a tribe, which in turn is more complex than a family, which is more complex than an individual (Wilber, 1995).

All of these levels of increasing complexity have emergent, fractal-like qualities (Mandelbrot, 1983) and are, in a sense, like levels of human development nested with less complex forms supporting and enabling the emergence of more complex forms (e.g., Kegan, 1982, 1994; Wilber, 1995, 1996). It is this capacity for emergence into greater complexity in Gaia that has enabled the development of human civilization as we know it today. And it is exactly that complexity, which is fundamentally based in interdependency, that may be at risk if Gaia’s stakeholders do not act responsibly toward her. This process, of course, says nothing about whether increased complexity is useful or good, just that greater complexity seems to be

associated with more advanced stages of development in complex systems (including individual human development and the development of civilizations).

The relationship between Gaia and her stakeholders necessarily exists because there is interdependence, interconnectedness, and interrelationship. There is an integral and holistic quality to the relationships that mean that they cannot be teased apart or reduced to elemental fragments if the system as a whole is to remain healthy (i.e., for human purposes, or, at least, support life pretty much as we know it). Whether we recognize it or not, from an ecosystem perspective, humanity's fate as well as the quality of life in societies over the long term is integrally linked to the fate of other species, to that of the world's ecosystems. It is also linked to the availability of certain types of natural resources (e.g., clean air, sufficient fresh water for consumption, arable land, as examples). Lester Brown (2009) goes beyond the natural environment to assess socio-political shifts that happen in the wake of environmental problems in his Plan B 4.0. This book clearly articulates many of these interactions and interdependencies between humankind and Gaia that are being argued here. This interdependence is perhaps more manifest today than in the past because the growth in population of humanity creates ever bigger impacts on the natural environment (especially when entrenched economic interests work to obstruct necessary change) (Norgard, 2006; Gelbspan, 2005).

Western tradition has long operated in a linear rather than a holistic fashion, addressing symptoms rather than fundamental problems (c.f., Senge, 1990, rev. 2006). Yet the Gaian perspective is both planetary and holistic, (normatively) demanding that we take into account the status, diversity, and interconnectedness among *all* living beings, species, whole ecosystems, even non-renewable resources, societies, and the planet itself. It needs to be viewed more holistically, from the perspective that Capra (1995) called the 'web of life.' Viewed from this perspective, and from the perspectives of inter-activity and interdependence, we are all stakeholders of Gaia's ability to continue to support life in ways that are amenable to human civilization.

Because of this interconnectedness, the diversity of others species, which helps to support human civilization (as a by-product of its existence), whether animal, plant, micro-organism, or other life form, also needs to be considered as a set of relevant and largely unrecognized stakeholders of the long-term ability of Gaia to support life. So does the availability and quality of 'non-living' resources on which a healthy planet and, not incidentally, a thriving humanity, relies, such as high quality topsoil that supports agriculture, fresh water and mineral resources that sustain life, life-supporting weather patterns and oceanic currents, and forest and other ecosystems, to name a few. All of these things are subject to change, and some of that change could be human-induced to the extent that human-induced climate change, deforestation, topsoil erosion, species extinction, and the like continue. It is clear from geological records that non-human-induced climate change and other ecological changes are always going on to some extent. The question is will the planetary system get pushed over some boundary by human activities so that recovery to an environment conducive to human civilization as we know it is no longer possible?

Thus, this paper has argued for a normatively-inspired Gaia-centric vision of stakeholder thinking. I have argued for shaping a world in which humanity *and* the other living beings,

including ecosystems, of Earth can live harmoniously and successfully—symbiotically and competitively—as we must do to survive, using but not abusing the other resources of the planet as humankind is wont to do. Fundamentally, it means taking a ‘cradle to cradle’ or ‘waste equals food’ (McDonough & Braungart, 2002) perspective on human activity versus the more linear production and economic models currently in use as highlighted in Annie Leonard’s short video ‘The Story of Stuff,’<sup>6</sup> v. the active denial that sometimes characterizes the debate (Norgaard, 2006). That is, instead of putting the *corporation* at the center of a stakeholder diagram, for purposes of thinking about the health and wellbeing of human civilization over the long run, we need to put the Earth itself—or, as Lovelock framed it, the living system that is Gaia—at the center. Such a perspective advances the ‘primordial stakeholder’ perspective (Driscoll & Starik, 2004), but builds upon it to move Gaia to the center of thinking about stakeholders (see also Starik, 1995).

### **Implications of Stakeholder Thinking from Gaia’s Perspective**

This argument for a Gaia-centric perspective is in many respects a level-of-analysis problem. At least with respect to the long term wellbeing of ecosystems on the planet, including those on which humanity relies, the corporation or organization is too low a level of analysis for stakeholder theory. For these purposes, e.g., sustainability or long-term thriving of humanity and the Earth’s other living beings and ecosystems, which is obviously a normative issue, we need to move Gaia—the concept of the earth as living system—to the central position in stakeholder thinking. If the world is to continue to sustain life as we know it, then we need to work from the level of analysis and perspective of having a planet whose inter-actors (stakeholders) and interdependence allow conditions that support life (in which humans can coexist with other living beings and ecosystems) to persist—for the good of all.

Taking such a perspective means thinking through what it would mean to have a sustainable (for human civilization) planet and who the stakeholders of the planet Gaia itself are. From that perspective, of course, we—and all the other living systems of the Earth are stakeholders—there is no escape. As *New York Times* columnist and author Thomas Friedman (2008) put it in *The World is Hot, Flat, and Crowded*, ‘there is no over there.’ It’s all here and we humans as a species need to deal with what is going on in the world from the perspective of being co-creators or agents in moving the world toward planetary wellbeing. Below, I will discuss several of the implications that arise from a Gaia-centric perspective on stakeholder thinking.

**A New Narrative?** Stakeholder thinking has been characterized in several ways—as instrumental, descriptive, and normative (Donaldson & Preston, 1995; also Jones, 1995). Freeman, founder of stakeholder thinking, has disputed this approach, claiming that such categorization, particularly between normative and other forms of stakeholder thinking, is a form of what he terms the separation fallacy (Freeman & Wicks, 2004), separating moral from other concerns. Jones & Wicks (1999) argued for a ‘convergence’ between normative and instrumental stakeholder thinking, a perspective that Freeman (1999) suggested needed to be more ‘divergent,’ in large measure because stakeholder thinking, in his view, is largely

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<sup>6</sup> See [www.storyofstuff.com](http://www.storyofstuff.com), accessed 2/11/11.

pragmatic—or instrument, with a normative core that cannot be separated from the instrumental core.

If, as Freeman (1994) argues, what is needed is actually a new narrative about business—one that *incorporates* normative thinking rather than separating it, then taking a Gaia-centric perspective on stakeholder theory provides an opportunity for creating this new narrative—and for placing humans in the larger Earthly, if not Universe-based, context within which they actually exist. At its heart, according to Freeman (1984; 2007), stakeholder thinking is a managerial approach. Its goal is to make organizations more effective in dealing with the many demands and constraints posed by stakeholders in their inter-activity and interdependence with the firm, a core premise that is overlooked in many stakeholder discussions. From a planetary perspective, this pragmatic or managerial approach, here explicitly normative, means that, *as* stakeholders *of* the earth and as sentient living beings with the capacity to act with intelligence, humans could conceivably do so with the interests of other living beings, ecosystems, and future generations in mind. Thus, humanity's interdependence with other living beings and ecosystems, from the normative perspective offered here, needs to take far more centrality in business and other thinking than is currently the case. This position is particularly needed with respect to issues of sustainability, maintenance of biological and ecological diversity, and husbanding of non-renewable natural resources in the interests of maintaining a viable planet for humanity (for an empirically-oriented discussion of a Gaia-centric perspective, see Welcomer, 2010).

Thus, the new narrative suggested by a Gaia-centric perspective is fundamentally one about the survival of the human species (and its business enterprises and other institutions) as *interdependent* with planetary living beings, ecosystems, and non-living resources, on the planet. To accomplish this narrative means getting those stakeholders called humans to take a more considered and sustainable approach to the planet and its resources, on which we are (inter)dependent and inter-active.

**A Stakeholder Set Perspective.** From a planetary perspective of the living system of Gaia, the stakeholder set (Rowley, 1997) needs to take into account the effects *on* Gaia of a range of entities, some of which are human or human creations—and, interdependently and interactive—of Gaia on those stakeholders. Such a perspective of course includes humans and their organizational creations—corporations, governments, and non-governmental organizations (NGOs), and other normal stakeholder groupings. But we need to go further to encompass other living beings and ecosystems. This perspective also encompasses the supply of natural resources, future generations, and other living beings and ecosystems. We could also add extra-terrestrial events like sun spots, as an example, which do have climatic effects on Earth.

Undoubtedly, the planet itself and some version of nature would go on with or without humanity's presence (unless somehow the planet is totally destroyed, say, via nuclear explosions), hence our normative and anthropocentric interest here is a 'healthy' planet, meaning that human civilization is both possible and sustainable with the systems that other living beings (plant and animal) need to interdependently co-exist with us humans. In this sense, we humans (along with other living entities) are *primary* stakeholders (Clarkson, 1995) of Gaia because,

while Gaia will certainly survive in some form without us, we clearly cannot survive without her ability to provide ecological conditions suited to humanity.

**Potential for Collapse toward Less Complexity?** Some could argue that Gaia—Earth—is hardly ‘materially’ affected by what humans do, especially (for the most part) by what any particular human could do. Certainly, the definition of materiality then has to mean that there is some noticeable impact—some difference—that occurs as a result of the interaction and influence. But that is exactly what I and many other have argued above has happened on the planet as a result of collective human activity. When humans are grouped together in collectivities, such as large coastal cities, the grouping changes the relationship of humans to Earth changes. It makes citizens of those areas more vulnerable to things like tsunamis, hurricanes/cyclones, and earthquakes, and flooding, for example, as became very evident during the Japan earthquake of 2011. It is also clear that human activities do affect Gaia—and, ironically, the more they are grouped together, e.g., in large coastal cities or in using valuable earthly resources (e.g., eliminating swamps, changing the course and nature of rivers and floodplains, reducing topsoil and its ability to retain water), the more vulnerable in many respects Gaia becomes to their activities. It is, of course, precisely these impacts that environmentalists are worried about, because of their materiality to the status of the planet. Putting aside the climate change debate, thus, we could readily note that there are many, many instances in which human activities (albeit perhaps not those of future generations directly) have affected Gaia. These instances include, e.g., the blowing off of mountain tops to get at coal or minerals, clear cutting of forests, pollution that arises from industrial animal husbandry and farming, paving over huge areas for parking lots, malls, and developments, diversion (or drying up) of rivers, to name just a few things that mankind does that affects how well Gaia is able to sustain the conditions that support life as we know it.

One of the implications of thinking about stakeholders of Gaia through the dual lenses of inter-activity and interdependence is the recognition that because of these factors, living systems on Earth have grown more complex over time. That increasing complexity appears to be an emergent product of the reality that Earth is a complex system that has also created a human population that itself has increased in complexity, size, and ability to affect the status of the planet through its own productive (and not-so-productive) activities. Despite that complex systems exhibit a general tendency toward greater complexity, however, there is a risk, at least with respect to humanity’s place on Earth, that humanity’s failure to take a more considered approach to planetary resources and ecosystem stability could significantly reduce (human) complex systems and possibly those of other living beings and ecosystems as well.

Thus, far from creating the greater complexity seemingly inherent in the evolution of complex systems, including human development (e.g., Kauffman, 1995; Nicolis & Prigogine, 1989; Prigogine & Stengers, 1984; see also Kegan, 1982; 1994, for a similar analysis of the increasing complexity of thought as humans go through development over time), it seems that the destruction and overuse of ecosystems, depletion, and species extinction of resources could conceivably result in greater simplicity of life on earth, not more complexity. Jared Diamond (2005) has documented the ‘collapse’ of human and eco-systems when there has been significant overuse of resources in many places around the planet. Such collapses clearly move the systems from greater to significantly less complexity, often within some geographical boundary. Modern

business and human practices create the potential for similar collapses, or at minimum, movement from greater to lesser complexity, even, to some extent, on a planetary scale if some sort of global ecological crisis occurs. For example, clear cutting forests and replanting with single species, mono-cultural agribusiness practices, desertification, and the creation of dead zones in the ocean lead to significantly less—not more—complexity within those ecosystems. What if the real danger to humanity is, as Lovelock (2010) indicates, a significant reduction in human population—and in the related complexity of human societies and systems?

**We Are All Stakeholders...** Evan & Freeman (1988) argued that stakeholders should be treated not as means, but as ends. In Freeman's (1994) debunking of the separation thesis, which argues that ethics can be separated from doing business, he asserts that from a pragmatist's perspective 'stakeholders are the relevant parties since they will be materially affected' (Freeman, 1994, p. 416). Similarly, the Gaian perspective taken here argues from a normative point of view that we are all stakeholders because, by virtue of our interactivity and interdependence with Gaia and of Gaia with us (and the world's other living beings and ecosystems), we are mutually and materially affected by what the other does. (Using Gaia as the focal entity does violate several of the ground rules that Freeman lays out in this piece. He is explicitly talking about human stakeholder relationships with firms, while here the focus is significantly broader and more encompassing). But while it may be true that the Earth, even conceived as Gaia does not 'care' about the fate of humanity, presumably humans do in a collective sense. And then neither do corporations 'care,' else their socially and ecologically destructive impulses might be better under control.

The thrust of these ideas, then, is to push us to think about where and what the real stakes are for the future survival of human civilization on this planet from the perspective of the living system that supports those civilizations. Despite the risk of 'stakeholder identity run amok' (Phillips & Reichart, 2000, p. 1919) by encompassing all living systems on the planet, I want to suggest that when we think about the truly big picture over the long term, using such a stakeholder lens can be a helpful priority-setting exercise. By doing so, perhaps we humans as a species could begin to think more carefully about establishing priorities among stakeholders of Gaia and reframe our relationship to Earth as a species.

Because Gaia and living beings other than humans cannot 'speak' in any traditional way, of course, it is obviously up to human beings to generate dialogues, conversations that allow the 'voice' of these unspoken stakeholders, as well as the manifold interests of humanity to be heard in policy arenas. Forums in settings like the United Nations, the Bretton Woods institutions (World Trade Organization, World Bank, International Monetary Fund), global action networks (Waddell, 2011), or other global hard or soft law global governance settings as they evolve, where all points of view can be considered, vetted, and where reasonable decisions can be made through dialogic processes will be needed to ensure that all points of view are considered as decisions about the future are made. One hopeful development is the emergence of what Waddell (2011) calls GANs or global action networks, in which multi-stakeholder groups come together to develop non-governmentally-based but potent governance mechanisms around important issues (e.g., marine or forest stewardship). It is in forums like these where many different points of view can potentially come together to create effective global policy.

Sustainability is important not for Gaia herself, because she may not ‘care’ whether humans survive or not, but for the future of human civilization from the perspective of humanity. Stakeholder thinking generally is focused on managerial effectiveness in the case of corporations (e.g., Freeman, 1984; Freeman et al, 2007; Freeman, Harrison & Wicks, 2010). From a healthy Gaia perspective, it is the effectiveness or the ability of the planet to sustain life in all its manifold diversity that is of interest. In a fundamental way, we and generations to come are all stakeholders of the continuing ability of the planet to do just that. While the natural environment cannot be said to have ‘objectives’ in the human sense, from a biological perspective it might be suggested that diversity, symbiosis, competition, and the ability to sustain life make up some of the ecological imperatives of the Earth conceived as Gaia. Human activities—whether business or other—certainly affect the capacity of Gaia to achieve these imperatives. Conversely, Gaia’s climate, resources, weather patterns, and the like certainly affect humans’ and other living beings’ capacity to achieve their individual and collective objectives as well.

Finally, the relationship among Gaia, humanity, and the other living beings and ecosystems of the world, including future generations, inherently involves an interaction among the elements that make up the relevant stakeholder set that has been explored above. This interaction involves responsibilities on *both* sides—the focal entity, Gaia in this case, has a ‘responsibility’ to its stakeholders, i.e., to maintain a livable planet, but because its human stakeholders have become numerous and powerful enough to affect the delicate balance on the planet that has allowed life to evolve, those stakeholders (normatively) bear an even more important responsibility *to* Gaia to limit their destructive impulses, so that Gaia can continue to provide a supportive living environment for humanity.

## Conclusion

Fundamentally, what this paper has proposed represents a normative conversation, a narrative if you will, about humans’ roles as stakeholders of the Earth. In that sense, it makes explicit some of the values inherent in stakeholder thinking. It presumes that we humans ‘want’ Gaia to support human (and other) life pretty much as we know it, even though Earth, even conceived as the living system Gaia, does not necessarily care about humanity or any other particular living creature or system. Thus, the idea of placing Gaia as the focal entity is, from humanity’s perspective, normative in that presumably there is some desire on the part of most people that humanity and civilization should survive (despite all the problems that we know exist). The core argument is for a shift of perspective away from anthropomorphism toward an understanding that our relationship with Gaia makes us vulnerable if earthly conditions change dramatically. The focus of this perspective is thus long-term, global, and emphasizes interdependence and connection. While this perspective may not be entirely novel, this framing is meant to draw attention to our interconnectedness and interdependencies in a new way.

Table 2 outlines some of the implications of this Gaia-centric approach applied to economic thinking that currently dominates many of our enterprises and political systems—and to the way humans and their enterprises interact with the planet. First, the approach to Gaia advocated in this paper if taken seriously would shift (economic and political) thinking rather dramatically. It would move us from what Lester Brown (2009) has characterized as a global

Ponzi scheme of sorts toward something more sustainable, or what he calls Plan B. That is, we need to move from a constant growth, ever increasing size and numbers mentality that strains resources toward a vision of growth in the form of complexity, of recognition of a need to live within the constraints of resources in terms of size and numbers, and a minimal impact mentality, which arguably have the potential to create a less destructive—even ‘better’—future for humanity. In making this shift the linear and mechanistic approach of Western culture, with its winner-take-all, cutthroat competitive underpinning, needs to give way to a more biologically-oriented, symbiotic and cooperative underpinning that focuses on positive sum solutions to problems. While others (e.g., McKibben, 2010; Hawken, Lovins & Lovins, 1999a; Brown, 2009) have made similar arguments, the focus on Gaia and her stakeholders makes this shift explicit in what is hopefully a clear and compelling way.

In addition, the orientation towards the Earth’s resources, currently one of exploitation, degradation, and extraction would shift in a Gaia-centric view toward consideration of replenishment and renewal of resources that are renewable, and maintenance and enhancement of non-renewables. This shift could take place if our current linear production systems, which move raw materials from extraction to production to consumption to disposal were re-oriented toward cyclicity in what Hawken, Lovins & Lovins (1999a, 1999b) called natural capitalism. Alternatively noted as a ‘waste equals food’ mentality (McDonough and Braungart, 2000) where there is recognition that there is no ‘away’ to throw waste into (c.f., Friedman, 2008), this approach relies on cycles of life that demand a use, reuse, renew, and refresh mindset focused on thriving, not just sustaining. From many nations, individualism, and separation, this approach could move us toward a true world community, with the consequent recognition that we are all dependent on each other and the many other living beings and ecosystems that co-exist (and co-evolve) on the planet with us. It could help us toward perhaps more of a sense of the whole—and even, possibly, the renewal of a more meaningful connection with others and with nature that has been lost in the modern era (Worthy, 2008; Louv, 2005).

From a world where technological and product innovation rules business, a Gaia-centric perspective takes us toward social innovation that attempts to make the world, including Gaia herself, a better place, normatively speaking, or at least a more hospitable place in the long-term for humans and other living beings and ecosystems. It moves us from a perspective that we live in an economy, toward a broader conception in which we share our families, communities, enterprises, states, economies, polities, societies with the natural world, in a partnership or collaboration, not in a battle where one is bound to win and another to lose. Why is this shift needed? It seems increasingly clear that if we maintain our win-lose attitude toward Gaia, rather than recognizing our stakeholder status with respect to her, it is we humans and our civilizations who will be the ultimate losers.

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**Table 1. Fundamental Rationale for a Gaia-Centric Stakeholder Perspective**

**Gaia and Its Inhabitants and Systems Are...**

<p>Interactive and (mutually) influential</p>	<p>By the nature of life, Earth’s living beings and ecosystems interact with (affect and are affected by, are capable of mutual influence) other living beings, ecosystems, and other systems and resources. They are synergistic in this interaction, which can happen deliberately or passively, but cannot be avoided. The interactive and interdependence of elements of the Earth’s system are mutually influential, that is, each element has some type or kind of power over others, thus their interaction shapes and refines how the Earth looks and behaves.</p>
<p>Interdependent, interconnected, and interrelated</p>	<p>The relationship between Gaia and its inhabitants and systems is one of reciprocity and mutual need, at least with respect to sustaining Gaia as a living system. Whether recognized overtly or not, the living beings and ecosystems of Earth operate as a unit, and when one is affected, all are affected at some level. There is a symbiotic dynamic among the elements that make up the planet that allows for sustaining the life-supporting qualities of the planet.</p>

**Table 2. A Shift toward Gaia-Centric Economic Thinking**

<b>Current Economic Thinking</b>	<b>Gaia-Centric Economic thinking</b>
Constant growth, ever increasing size and numbers, straining resources, bigger is better mentality	Growth in the form of complexity, living within resource constraints, size and numbers control, minimal impact mentality
Mechanistic orientation—Competition, winners and losers, zero sum game	Biological orientation--Symbiosis—cooperation combined with competition, positive sum game
Exploitation and extraction of resources, degradation and using up scarce resources	Replenishment and renewal of resources, maintenance and even enhancement of resources
Linear production systems, raw materials to production to consumption disposal (waste, many toxins) system that puts ‘used’ materials in landfills or incinerators, ‘throw it “away”’ mindset, waste-ability	Cyclical, circularity (organic), natural capital based production, in which waste equals food (low/no toxins) in the Natural Capital sense, ‘there is no “away”’ mindset, use and reuse, renew and refresh, thriving ability
Many nations, many individuals, fragmentation, separation, individualism, division, separateness, anomie	We are all in this world together, all interconnected, interdependent, holism, integration, collectivism, meaningfulness
Product, technological innovation rules	Social innovation rules
We live in an economy	We live in societies and as part of nature