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Rethinking Sustainability on Planet Earth: A Time for New Framings Arielle Dylan

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It is logical that the drive for standardization and uniformity might someday impose a grid-like pattern to the ecology of our minds until we are permitted to have no thoughts without right angles.

David Orr, The last refuge

James Baldwin, celebrated author and civil rights activist, closed his distinguished work The Fire Next Time with these biblical words rephrased in a slave song: "God gave Noah the rainbow sign, No more water, the fire next time!" Though Baldwin was writing of racism and bigotry, his eloquent insistence that people "cease fleeing from reality and begin to change it" for "[e]verything now...is in our hands" and the lyrics of water shortage and fire resonate deeply with the environmental crisis of our time (1962, 21, 141). Of the now familiar litany of environmental challenges threatening continued life for innumerable species on Earth, water scarcity and climate change, together with unabated human population growth, are among the most critical concerns. Barlow (2007) rightly emphasizes the exponential decline in freshwater and the associated social, political, justice, peace, and survival challenges this poses. Many environmental scholars have identified the rapid rate of human population growth, with more than seven billion people now living on planet Earth, as a pressing issue given that we have already outstripped our carrying capacity on a finite planet (Hamilton, 2010), largely due to the lifestyle of the global north. Most scholars, scientists, and citizens researching, writing about, and combating environmental challenges, are in agreement that climate change represents our gravest threat (McKibben, 2010; Lovelock, 2006). It is the unpredictability, the rise in weatherrelated fatalities, the devastating loss of biodiversity, the probability of countless climate refugees, the decreased habitability of the Earth for myriad species (including human beings), among other bleak aspects, that render climate change such a disquieting calculus.

Flannery (2005) has referred to us as "the weathermakers," and he argues fittingly that the "future...hangs on our actions." Before discussing remedial strategies, it is necessary to have a full understanding of the severity of the climate crisis. The rate at which global heating is occurring is faster than climate models predicted, which leaves less time to respond and has some wondering whether it is indeed too late (Diamond, 2005). The Intergovernmental Panel on Climate Change (IPCC) published their *Fourth Assessment Report* in 2007 which predicts a global temperature increase of 2.4 to 4.6°C above pre-industrial levels if our emissions of greenhouse gases are not reduced. Any temperature increase of 3°C or more "would eventually result in the world's oceans rising by around seven meters, dramatically redrawing the geography of the Earth" (Hamilton, 2010, 8) and permanently displacing millions of people, adding to the climate refugee crisis. Many climate scientists, including James Hansen, believe the present 392 ppm is already beyond a safe level, and urge us to lower this number below 350 ppm to avoid irreversible environmental "tipping points." Sadly, even if in a surreal scenario we as a species were suddenly to stop emitting CO₂ tomorrow, the world would still continue to get warmer for several decades due to the methane being released from anthropogenic,

amplified permafrost melt; through a positive feedback process, climate change is perpetuated. According to Hawken (2010) the potency of methane is twenty times that of CO₂, which spells catastrophic environmental outcomes, if business as usual holds sway, and lost climate stability for centuries (2007).

Although China is now the greatest emitter of CO₂, industrialized nations of the global north have historically contributed the most CO₂, precipitating our current climate crisis. In fact, the US which comprises only four percent of the world population is responsible for a full 25 percent of global greenhouse gas emissions (Schönfeld, 2010). For this reason Schönfeld (2010) calls climate change not only anthropogenic and androgenic, but also amerigenic. Canada has been censured on the global climate stage and has the dubious distinction of being both among the highest emitters per capita of greenhouse gases and home to the "most destructive project on Earth," the tar sands (Hatch & Price, 2008). Canada, Australia, and the US have contributed 30 percent of the world's greenhouse gas emissions. Yet these same countries, together with other industrialized nations failed miserably at the 2009 Copenhagen meetings designed to establish a reasonable international climate response and agreement. Although climate change will affect us all, the bleakest effects will be experienced most keenly by millions of poor people in the poorest nations (McKibben, 2010; Foley, 2004).

Contemporary political discourse consigns climate justice principles to the periphery (Elshof, 2010), but climate change is a patent justice issue, and as the consequences of climate change overlap and coalesce with other environmental challenges, we must be attending to matters of equity. But first we must simply attend. Many environmental scholars have questioned our sluggish response to the very grave challenge before us (Lovelock, 2006; Orr, 2004; Hamilton, 2010). "If there's no action before 2012, that's too late," exhorted Dr. Rajendra Pachauri, chairperson of the IPCC. "What we do in the next two to three years will determine our future. This is the defining moment" (Rosenthal, NYT, 2007). Others, such as Kingsnorth, former deputy editor of the *Ecologist*, assert the window to avert global disaster "closed a long time ago" (Lee, 2009). The question however remains, what can humanity do to mitigate the impact?

Sustainable development and sustainability have been put forward as major strategies, having economic, social, and environmental principles thought capable of effectively guiding human response to environmental challenges and global warming (Brundtland, 1987). This article will now turn to an examination of these two constructs to determine whether they are apt approaches for our times. Then using climate change as a stark reality and an organizing theme, a variety of environmental topics will be explored as a means to move toward critical understandings necessary for personal, community, and policy change. Finally, suggestions for action stemming from the multiple themes will be proposed.

Sustainability and Sustainable Development

Smith (1987) notably identified the "everyday world as problematic," meaning the countless relations and transactions constituting everyday modern life are inextricably tied to larger institutional forces, hegemonic realities, sociopolitical relations, and translocal matrices. Talk of sustainability, and of course related practices, is inescapably part of this problematic. At first glance, notions of sustainability and sustainable development can seem innocuous and laudable enough, but deeper exploration, especially in light of geopolitical and contemporary contexts, points to weaknesses.

Sustainability and sustainable development are related but different terms. Sustainability, broadly, is the capacity for species to endure over time. For human beings, this involves social,

environmental, and economic practices and the concept of responsibly using natural materials with a view to future needs of Earth community. Sustainable development uses the slippery term "development" which can be associated with social, cultural, and spiritual pursuits, but is most often connected to material practices, ideas about resource use, and modernist notions of progress. Prior to the 1987 United Nations World Commission on Environment and Development (UNCED), several authors had promoted sustainable approaches (see for example, Meadows et al., 1972; Daly, 1973; Stivers, 1976; Allen, 1980; Brown, 1981), but it is the definition from the UNCED Brundtland Report that is best known. Sustainable development is defined as,

"...meeting the needs of the present without compromising the ability of future generations to meet their own needs."

Later iterations of sustainable development incorporated notions of the "triple bottom line," involving social, environmental, and economic development. Indeed the United Nations 2005 World Summit Document views sustainable development as comprising a triple bottom line of "interdependent and mutually reinforcing pillars." With the development of Agenda 21 emerging from the UNCED conference held in Rio de Janeiro in 1992, many were excited by the grassroots vision of sustainable development put forward. However, the envisaged local orientation, community initiatives and increased civic participation succumbed to the inertia of managerialism, the issue of scale never being adequately addressed (Leach, Scoones, & Stirling, 2010). Haque (2000) identifies the following as five possible shortcomings of sustainable development; does not explicitly counter the economic growth model; correlates a nation's developmental stage with consumption levels; demonstrates inadequate interest in cultural development; lacks a sufficient response to international inequalities; and fails to address hegemonic national and international practices regarding environmental conventions and laws. One could add that sustainable development by neglecting to state explicitly an ontological line of inquiry in which the human relationship to the world is examined, in which our vital connection to our land base and interdependence with other species is considered, cannot possibly present a robust response to current environmental challenges.

Sustainability – A Contested Term

Though, theoretically, sustainability is different from sustainable development, the term has, in many respects, been appropriated by big business, emptied of distinct meaning, and elided into a form of practice in large part indistinguishable from sustainable development. This is not to suggest that sincere sustainable practices do not exist but to highlight the challenge of an adulterated term. To address this issue, Speth (2008), among others, has discussed the difference between strong and weak sustainability, a difference not dissimilar to Naess's (1973) articulation of deep and shallow ecology. "In strong sustainability, the environment is sustained. Natural capital is sustained. In 'weak sustainability,' it is the prospect for long-term economic growth that is sustained" (179). Many who work in helping professions and advocate sustainability are, unsurprisingly, proponents of the strong variety. The appeal of sustainability for such professions is logical given the humanist underpinnings of this form of environmentalism. Roughley has argued that human rights and needs must be considered in the context of the continued survival of the natural world (1995). This necessitates possessing an understanding of the finite quality of Earth, a point so ably articulated by Boulding (1966), and simultaneously requires an interrogation of western economics and the concept of unbridled growth. Sustainable environmental thought is also clearly normative, valuing not only the rights of future generations to a habitable planet, but also the rights of all global citizens and communities to social and environmental parity with respect to resource access and protection from toxins (Lusk & Hoff, 1994; Estes, 1993; Gamble and Hoff, 2005; see also Tester, 2012).

Many see the impossibility of addressing structural oppression, righting power imbalances, and facilitating equitable access to and redistribution of resources without considering place; extraction, manufacture and circulation of resources; and the sustainability of human and other species. For this reason, Muldoon (2006) argues social change and sustainability must be considered jointly. Roszak (1992) emphasizes the importance of attending to environmental issues in our everyday life. Coates (2003) asserts true sustainability cannot be partial to region or nation-state but must exist for all peoples, all countries, applying equally to global north and south. He urges the adoption of a new paradigm, shifting from outmoded modernity to sustainability in a transformative process that reconceptualizes the human relationship to the natural world and simultaneously advances a social justice agenda. Mary (2009) echoes this sentiment when suggesting a sustainable approach requires that we reorient our values to incorporate an appreciation for all life forms, develop social and community action models based on partnership and participation, and build respect for environmental limits.

But as convivial an ostensible ideological and practical fit sustainability may have with professional helping, there remains the matter of the complexity of the term itself. McKinnon (2008) acknowledges the challenge of "defining social sustainability" but suggests "we move beyond the contest over wording to a position that accepts that new premises are needed as we think about the contribution social work can make to sustainability" (265). It is not unreasonable, however, to remain more circumspect about the term given the definitional difficulty, question of relevancy for present circumstances, and extent to which the concept is promulgated as the "keystone of the global dialogue about the future" (Orr, 2004, 57). Sustainability is complicated because it can be seen as a virtue, elevating the term to popular buzzword status, but the difficulty meaningfully defining and equitably implementing sustainability render it both hollow and susceptible to cooptation by adherents of growth and expansionist models, making it highly akin to sustainable development (Luke, 2005).

Sustainability is a contested term for other reasons as well. The following questions need be asked with respect to sustainable practices: For whom are they? What do they look like and what is entailed? What exactly is sustained? Leach, Scoones and Stirling (2010) take a penetrating look at sustainability critiquing dominant models for their failure to tackle inequalities, indifference to local goals and terms, imposition of extraneous blueprints from the North on the South, lack of attention to issues of scale, and implementation of linear thinking on nonlinear processes. In a neoliberal globalized world where worldwide poverty is accelerating, and financial security is increasingly the reality of "the lucky few" (Jackson, 2009), without asking for whom sustainability exists, without closely monitoring its practices, there is the risk that it is nothing more than a smokescreen. Brunel (2008) argues wealthy nations are using the environmental protection aspect of sustainable approaches as a way to prevent developing countries from emerging as substantial market forces on the world stage. In this respect, Brunel suggests the capitalistic practices of so-called First World countries are buttressed by sustainable development. Some scholars see sustainable development, and similar methods operating under the banner of sustainability (typically the weak form of sustainability), as a flaccid and oxymoronic term, proposing instead the idea of sustainable degrowth, an approach that confronts the key institutions of capitalism and advocates a "leaner metabolism, where wellbeing stems from equality, relation and simplicity, and not material wealth" (Kallis, 2011, 879; see also Speth, 2011). Jackson (2009) and Heinberg (2011) both recognize the unfeasibility of persisting with a growth model when all evidence suggests Earth systems are in decline and ecosystems worldwide are increasingly fragile.

Which leads to the final question, what exactly is sustained in the sustainability model? McKibben (2010) boldly and cogently argues the world today is not as it was in times past: It

has been irrevocably altered by human actions and therefore requires a new moniker—"Eaarth." We cannot live on the Earth as we did before. Nor can we expect it to behave in any predictable manner. The United Nations 2005 Millennium Development Goals Report indicates despite efforts toward environmental sustainability "Illand is becoming degraded at an alarming rate. Plant and animal species are being lost in record numbers. The climate is changing, bringing with it threats of rising sea levels and worsening droughts and floods" (30). Is it at all surprising that humankind is accused of having a "naïve belief" in sustainable strategies (Lovelock, 2006. 11), that the impossibility of sustainability is thought to be the "[u]nspoken secret of environmentalism" (Hawken, 2010)? Again, this is not to suggest that the sincere sustainable practices, such as organic gardening or a community living purposefully by permaculture principles are of no value, for certainly they are, but the problem is, in these times, they are not enough. The new environmental reality necessitates new ways of being, and the fact is ecosystems that are globally vulnerable to the positive feedback loop of global heating set in motion by anthropogenic CO₂ production cannot be sustained. It is impossible to sustain what is meteorologically destined for change: Thus the term sustainability is barren. Humankind can practice non-harm to the environment, can engage in positive relationship with the natural world, but cannot accurately be described as practicing sustainability.

While one need not agree with Dawkins (2001) that there is "something profoundly anti-Darwinian about the very idea of sustainability," one must recognize the extent to which economists and economic matters steer and dominate national and international policies, practices and relations, the seemingly free reign granted to transnational corporations, and the degree to which governments have retreated from their social welfare responsibilities, genuflecting to neoliberal, globalized market forces and effectively hollowing out democracy. Because unchecked growth on a finite planet is unsustainable and capitalism is based on a model of endless growth, capitalism, too, is unsustainable. Yet this is the prevailing economic model globally. Moreover, so-called Third World countries are now attempting to live by the standards of industrialized nations, which from an equity perspective surely must be understood as a social justice issue and elicit calls for reduced consumption in developed nations. However, from an environmental perspective, it exacerbates the impending disaster. A deeper look at economic concerns is now in order.

The Economy

An unjust and unsustainable socioeconomic system forecloses possibilities for truly just and sustainable practices. Capitalism itself, because of its implicit growth motive, evident myopia regarding the very land base it is plundering, and characteristic disregard for human welfare, is unsustainable. An inventory of the planet's various ecosystems and processes in decline signals the immense failure of the economic system. Yet economists cling to market fundamentalism, maintain there is no alternative to the growth fetish and free market fixation, trundle headlong into continued global expansionism, and insist this creates greater happiness and prosperity (Hamilton, 2003; Korten, 2009; Korten, 2006; Jackson, 2009; Orr, 2004); but everywhere around us can be found evidence to the contrary. The twentieth century is paradoxically, and perhaps notoriously, best distinguished by its related but contrasting activities of mass production made possible through new technologies and mass destruction resulting from detached national and global capitalism (Kingwell, 2001; Homer-Dixon, 2009). Fukuyuma (1989) famously, if prematurely and overconfidently, asserted "we may be witnessing...the end of history...the end point of mankind's [sic] ideological evolution and the universalization of Western liberal democracy as the final form of human government" (1), and sadly his notion of the end of history, divested of its disagreeable Western triumphalism, may indeed have some merit if recast in environmental terms (Rifkin, 2004).

One reason why the environment fares so poorly at the hands of economic pursuits is that the two are ideologically assembled in a false antinomian dualism in which the economy is hierarchically valued over the environment. The corporate stronghold and the media, which have been taken over by big business, promulgate ideas of jobs versus the environment, engendering fear in significant portions of the population already experiencing financial hardship (White, 1995; Jensen, 2006). This belief that a thriving economy should take precedence over a healthy environment not only reinforces the strange accounting in which environmental costs and losses are treated as externalities, but also falsely brackets the environment as a subset of the economy when the economy clearly must be understood as a subset of the natural environment on which it depends (Brown & Garver, 2009). Even in cases involving supposed sustainable practices, analyses of costs and benefits frequently fail to anticipate and attend to cultural, gender, ethnic, and environmental changes, instead relying largely on established market values disconnected from the needs and constraints of specific localities (Leach, Scoones, & Stirling, 2010). Consequently, people continue to over consume, overexploit, and exhaust the natural world at a rate that defies regeneration, causing natural limits to be exceeded by 25 percent for the past decade (Speth, 2008).

Of course there is the matter, too, of timing and time. Unfortunately, just as the coalescing issues of climate change, peak oil, and environmental degradation are gaining more attention in public, intellectual, and scientific discourse, the self-satisfied and increasingly powerful cabal of multi-national and transnational corporations have achieved traction with the ascendancy of neoliberal globalization and the retreat of government intervention and public control. The WTO, IMF, and World Bank all serve the interests of multinational entities and the more industrialized nations (Hawken, 2010), while equity and justice are disregarded in this crude plutocratic rendering. In this world of secularized global capitalism can be found a global culture (which thankfully is greater, more hybridized, and pluralistic than Barber's (1996) McWorld articulation) and metastatic growth in global markets, but no real "global politics to balance and give meaning to these troubling universal realities" (Kingwell, 2001, 3). Neoliberalism's diminishment of government control cannot be righted by a reliance on corporate social responsibility. It is the government's job to safeguard its citizens; it is a corporation's job to maximize profits for its shareholders. It is unsurprising to discover that corporate social responsibility is often nothing more than a decoy to distract civic interest from ethical considerations or a nominal bit of charity.

The commitment of the economic juggernaut to profit, growth, and expansion is based in myopic, short-term thinking. This kind of corporate time which conventionally uses, produces, and plunders is not compatible with the longer generative processes of ecological time. The countless centuries involved in creating biospheric and ecosystemic realities of the Alberta plains is incomparable with the few decades of destructive, extractive, corporate time by which the tar sands operate. Despite the fact that the world economy, its damaging practices and unnatural space and time scales, destabilizes planetary health and processes, economists still maintain humanity is prospering. The only logic for this bizarre assertion can be found in the solipsism of contemporary economics where the measure of wealth is gross domestic product.

Real prosperity, however, past a basic minimum of economic need, is not a function of finance but meaning, the extent to which we are engaged in meaningful occupations, and significantly connected to others and our communities (Brown & Garver, 2009; Korten, 2009; Speth, 2008; Kingwell, 2001). It is continued existence replete with its opportunities for profound connection, including qualitative growth (Taylor, 2007), that is most conducive to happiness, not quantitative fiscal and material growth. There is a point of diminishing returns where growth not only does not create happiness, but also it does not create wealth: Instead, it leads to impoverishment

socially, culturally, spiritually, economically, and ecologically, undermining the very world on which we depend. The foolish idea that humankind can survive successfully divorced from the natural world is a position that warrants interrogation.

Not-So-Grand Narrative

The same illogic that intellectually separates economics from ecology is operating in formulations that wrongly situate human beings outside of nature. More accurately specific human groups have been thusly conceived, for so-called racialized and female bodies have historically been perceived as being differently constituted and belonging within nature. This is an astute observation and central argument articulated by ecofeminists: Namely, a hierarchical dualism situates white men and culture above and separate from women, racialized others and the nonhuman realm, all collectively and pejoratively constructed as natural, inviting countless forms of abuse and exploitation (Warren, 2000). As Berry (1999) so aptly identified, we suffer from an inadequate and misleading story, a series of incomplete false cultural stories, such as the "civilization story" and the "corporate story," that have propelled us to where we are today. The story of the dominant culture is simply one story, but a far-reaching one with tremendous ramifications. Of course, there are multiple stories: "it's just that one is linear and subsuming" while the others are "contrapuntal and often nomadic" being outside of the narrative orthodoxies and possessing a kind of "migratory, anti-narrative energy" (Said, 1993, xxv, 279). There is a profound need to question our historiographies and cultural narratives, especially the dominant culture narrative, because many of our errors in thought, understanding, and habits, can be traced to this story. Indeed humankind's very need to develop constructs such as sustainable development and sustainability to help regain suitable, respectful relationships with the Earth and all its members is a function of the dominant misguided cultural narrative.

The human social realm has been created by us, and the way we understand and value aspects of this world are socially constructed. Constructions are inherently mutable and discursive. vielding to various social, political, cultural, and aesthetic influences over time. Yet there are also considerable forces that reinscribe social and cultural understandings, and modernity with its unabashed hyper-rationalism is one such force. Baconian methodology, Newtonian physics, and Cartesian mechanism are often seen as chief causes of the destructive cultural narrative (see for example, Shiva, 1989 and Merchant, 1990). While one need not hold such figures anachronistically accountable to contemporary understandings, Shiva and Merchant, among others, are right to see in positivist reductionism and the proclivity for quantification, the unfortunate separation of "fact" and morality, of science from ethics, of matter from spirit (Leiss, 1972). In the shift from medieval to modernist thought, certain beliefs persisted, the notion of the Great Chain of Being providing one such example. In this system human beings occupied a unique place straddling the spirit and material realms, believed to have both an immortal soul and a physical body, and were placed hierarchically above all other animals, species, and natural elements. This conceptualization forms part of a dangerous anthropocentrism that today is linked with "contempocentrism" (Speth, 2008) that has us blinkered to our interdependence with other species, and befuddled by a presentist lens that sequesters us from past lessons and blinds us to future catastrophes.

Weber borrowing the notion of disenchantment from Schiller, remarked on the relationship between rationalization, intellectualization and the "disenchantment of the world" in which "the most sublime values have retreated from public life" (1991, 155). This disenchantment has been traced to enlightenment rationality which elevated reason above feeling, and relegated care and empathy to the periphery. Adorno and Horkheimer (1997), observing the adverse effects created by a primacy on rationality, elegantly stated, "the fully enlightened Earth radiates disaster triumphant" the "decline, the forfeiture, of nature consists in the subjugation of nature without which spirit does not exist" (3, 39). Early critical theorists interrogated this putative

rationality which led, as the Nazi regime so ably illustrated, to a new kind of "barbarism." Recently Goodstein (2007) has remarked on the irrational disposition of industrial civilizations founded on enlightenment rationality. One need only consider geo-engineering as one possible example, among many, to glimpse our irrationality. The idea of pumping sulphur dioxide particles into the atmosphere via a hose approximately 30 kilometres in length is being seriously explored as a way to offset global heating, but Earth systems are unfathomably complex so it is impossible to know what havoc this could create. When an implementation of supposed rationality, multiplies challenges, as this surely would because it involves the application of linear problem-solving to a nonlinear problem, then we are patently operating irrationally.

Pre-modern European society and societies that developed along other trajectories, but must be seen as having "absolute simultaneity" as Zemon-Davis (2000) fittingly insists, had worldviews where the interconnections among ethics, values, religious beliefs, and land use were obvious. Regrettably our philosophical and cultural saturation in modernism, and especially the highmodernism defined by Scott (1998) characterized by "supreme self-confidence about continued linear progress" and "increasing control over nature," has brought us to a point where our survival, along with that of innumerable other species, is questionable. Our hypertechnologism. hyperseparation from our own selves and nature, and the seeming endless effluence of our cherished affluence suggest a culture in decline, a culture wrestling with a "death instinct" as Rifkin (2004) proposes. Ironically, Matthew Arnold (2006), Victorian poet and cultural critic. believed culture to be an important antidote to the worst ills of industrial society; in our time culture, which disconnects us from the natural world and requires remedial constructs such as sustainability, produces disaffection, political naïvete, and alienation from pressing issues, while simultaneously reinforcing excesses through an "idolatry of giantism" to use Schumacher's term. (Briefly, over-sized sodas, gigantic homes, and women radically altered by enormous breast implants come immediately to mind.)

Of course modernism has positive aspects and these are not to be discounted. Nor should the source of exploitation be traced to modernism alone, as exploitation existed long before the ascendancy of this ideology. However, examining the ways production and consumption, along with notions of power, have become central to the modernist psyche is critical, as is the need to attend to the "threat of our own hubris" (Jacobs, 2004) that is forged in this cultural orthodoxy. Kingwell (2001) beautifully elucidates the contribution Arendt made to the understanding of "power, especially when mobilized around technological and economic paradigms of rationalization" where evil is banal when performed by the functionary (61). From here, Kingwell suggests that mass culture itself is, in part, evil not only for "its immense reach and apparently unopposable force...its relentless downward drag on the rich possibilities of media and performance" but also the considerable and unmanageable volume of extraneous information it requires us to sift through (62), an observation which echoes Wilson's (1999) remark that "[w]e are drowning in information, while starving for wisdom" (294). Burke (2003) recommends appreciation as necessary to any project designed to palliate contemporary ills: "Appreciation is a form of thanksgiving" (50). But the human world has prevailing psychological forces of expectation, desire, and entitlement, where thanksgiving is often no more than an annual sentiment. In such a culture, establishing a respectful relationship with the natural world, with Earth community, is difficult at best, and concepts such as sustainable development and sustainability, as history reveals, can readily be put in service of the dominant destructive cultural narrative.

Feeble Response

Given the extreme challenge that is before us, we have to examine our tardiness acknowledging and responding to the danger. Of course, it is easy to identify, but not defend, the corporate

rationale for sacrificing long-term interests and environmental protection or restoration goals for the sake of short-term benefits. But how is the lack of public will explained? Monbiot (2008) observes the peculiarity of our obsession with terrorism but largely unperturbed reaction to environmental collapse. Returning to Kingwell's (2001) notion that mass culture is marked by banality, reflecting on how this culture affects the ability to be engaged citizens, to be politically involved is essential. The public is often critiqued for being excessively consumer oriented, for being commodity transfixed in a commodity culture. While many of us do pursue material novelty and have identities profoundly shaped by individualism, consumption, and acquisition, in the social topography of an unrestrained commercial culture, the repressive effects of an affluent society, the manner in which it impedes and dampens emancipatory and political motives is not to be underestimated (Marcuse, 1964). In a cultural milieu where inculcation into a system of obedience and passivity prevails, where political life is often beyond our "range [and] in the hands of the rich folk," with the pursuit of trifling, aimless pastimes like reality television and spectator sports, societally sanctioned activities that keep us "from trying to get involved with things that really matter" (Chomsky, 2002, 100) is not surprising. The cultural inclination to proliferate and disseminate often trivial information has produced a populace wanting in insight, wisdom, and political astuteness. This lack of accurate or valuable information used to be named as a key reason people were not responding to climate change. Naysayers, in the interest of big business, deliberately obfuscated the climate change issue, producing a welter of information designed to reinforce the status quo. But the scientific evidence is now irrefutable: Climate change is not a hoax, yet the lack of public, political, and social will persists.

Certainly, there are economic benefits associated with denial. In Canada politicians, business persons, and conservatives are in denial when they value the Alberta tar sands for their contribution to the economy, but do not do an appropriate accounting of the cost to the Cree and other nearby peoples, the utter devastation of local ecosystems and biodiversity, the "triple whammy to the environment" through transforming a carbon sink to a source and emitting enormous levels of greenhouse gases (Marsden, 2009), and the troubling epidemiological changes. Denial is not always economically motivated. Sometimes it is associated with universal human feelings and psychological states such as helplessness and apathy in the face of overwhelming information, a sense of futility given the privilege and power belonging to an elite few, and an experience of quilt and implicit culpability because of a contemporary lifestyle and cultural system that many know are damaging the environment in manifold ways yet the reluctance to relinquish familiar comforts persists (Norgaard, 2011). People also feel hamstrung because public control has been largely lost to corporatism and wealth filters upward to a privileged minority. Making a living is increasingly challenging which leaves less time available for community engagement, including environmental activism. Another problem is the fictional belief that technology will solve environmental challenges. This audacious belief in triumphalism about the ability to overmaster nature together with faith in exemptionalism, the notion that humankind possesses special status as a species, is flawed not only because of an impending "ingenuity gap" as delineated by Homer-Dixon (2000), but also because of the unpredictability of nonlinear processes. Diamond (2005) asserts signs of environmental decline can be overlooked due to a seeming plenitude or the masking effects of ecosystem fluctuations, but it is now abundantly clear that the natural systems that make our lives possible are in collapse, yet our response is still inadequate and incremental. Increased social and political will are needed and needed fast.

Responsibility

This paper has argued the intellectual and political vacuity of the construct "sustainable development," and has pointed to the ways "development" reinforces problematic modernist

economic notions of progress and growth. "Sustainability" is impracticable in a world where ecosystems are in decline globally, biodiversity is being lost at an astonishing rate, and a positive feedback loop will accelerate global warming even if emissions ceased today. The denunciation of these terms is not to propose resignation or despair in the face of contemporary environmental challenges but to encourage responsibility, civic engagement, and collective efforts toward de-growth. There are no easy nostrums for our time, and solutions will not be found in assured schematics, but there are directions to be pursued, responsible actions to be performed.

Righting the human relationship with the natural world, of which humankind is a part despite our collective foray into biological amnesia, is an important step. To help reconnect respectfully with the biotic realm, Brown and Garver (2009) suggest the adoption of a "commonwealth of life" model, not simply a political commonwealth comprising a constituency of members contained within the arbitrary boundaries of a nation-state, but a perspective where "notions of common features, fair sharing, and interdependence" are extended "to the entire community of living beings on the Earth" (7). This view encapsulates that of many environmental philosophers and scholars and very closely approximates the Leopoldian vision of the "land ethic." Through recognizing that human beings are only one of many species, perceiving our interdependence with other species, and understanding that these species and natural systems have rights, it is possible to begin to mend our fractured relationship with the Earth, divest ourselves of the human-nature divide, and live more respectfully within ecological limits. Of course, accomplishing this requires more than a new construct; it requires a new story as Berry (1999) shrewdly observed. The new cultural story needs to debunk the old, continually question the eco-ethics of the new, radically transform human-nature attitudes and beliefs, promote survival needs, have a community focus, involve systems thinking and interdependency, and advocate holism (Plumwood, 2010; Coates, 2003, 2004; Mary, 2009; Lake, 2010).

Educating young persons so that they grow up knowing about their mutual dependence on other species, knowing they are literally made of the places they inhabit (Zapf, 2009), and reeducating older persons, those who have already been inculcated into the discredited cultural narrative, is essential. Orr (1992) recommends ecological literacy, a compelling idea with tremendous traction. Its basis is "the comprehension of the interrelatedness of life grounded in the study of natural history, ecology, and thermodynamics" simultaneously focused on the realization that "we live in a world of wounds senselessly inflicted on nature and on ourselves" (93). The more we understand our world and our relationship with it, the better equipped we are to know how to engage respectfully. Lysack (2009), building on E.O. Wilson's biophilia concept, has initiated important education work, helping learners to remember their early urges to affiliate with other species as a way to promote reconnection and, ultimately, environmental engagement. It is imperative that learning be understood as having multiple sources and avenues, a variety of epistemological apertures and standpoints. Shawn Wilson (2008) describes epistemology in Cree understanding as involving not only conventional western ways of knowing, but also intuition, visions, and dreams. Besthorn (2004), surprisingly for an academic article, courageously writes of a restorative ecological practice that requires listening to the voice of the Earth and its species, and Lake (2010) invites us to be receptive to and learn from the "Big Quiet," a profound expression of nature that draws us into the voice and rhythm of the land. Some argue the need for a new consciousness, a transformation of the spirit and heart (Speth, 2008; Mary, 2008; Coates, 2003), for without love for the environment or a Gaian worldview, protection and respectful relations are not possible (Gould, 1991). While this position has merit and certainly will appeal to those who are spiritually, devotionally, or holistically inclined, the difficulty is the huge swath of the population who will remain unmoved by such arguments, possibly even apprehensive. To reach a larger critical mass of engaged

environmental citizens, we would do well to be more pedestrian. Does one have to love the land to defend it? Or is keen awareness of our unalterable dependency on the land and its species enough to foster responsibility, respect, right relationship, and moral imagination?

Responsible environmental activity can involve both individual and collective actions. Scholars are right to mention the limits of individual actions and the way this shifts the focus from corporate plunder and eco-injustice to green consumerism, reduced energy use, voluntary simplicity, and other personal choices (Elshof, 2010; Hamilton, 2010; Jensen, 2009); however, these seemingly insignificant positive changes may reinforce new ecological learning and lead to community involvement. Of course, the most important activities are collective ones. Environmental scholars and activists point to many ways in which we can be more responsible. A critical mass of engaged citizens to join local grassroots organizations and global movements that aim to transform radically industry, corporatism, and politics through demonstrations, advocacy, campaigns, and acts of civil disobedience is needed. To achieve the necessary socio-political restructuring, a mature, educated, committed citizenry who are prepared to rebuild a dismantled remnant democracy into a just democratic system where the governance truly reflects the voice of the people is essential. Leaders and facilitators who are sincere and connected to people and contemporary issues, who encourage vigorous public discourse and heed its messages will be key to this change process. Generally, small locally-attuned societies are more knowledgeable about their land base and practice superior environmental management (Diamond, 2005), so developing an affinity for the local, where practices and understandings are rooted in place, is critical. A shift to a smaller scale allows local communities to tackle regional challenges, while larger global issues can be handled internationally through a system of interactions across scales (Homer-Dixon, 2000; Leach, Scoones, & Stirling, 2010). It is vital that organizations advocating degrowth and real wealth are promoted and sought as partners, in order to return to a resource usage that is more consonant with the carrying capacity of the Earth. In part this, along with all suggestions here proffered, will require transdisciplinary collaboration, involving legal experts to repeal the person status of corporations (Korten, 2009).

Justice issues must be addressed deliberately and concertedly, not only environmental justice, climate justice, and health equity, but also those injustices that are intrinsic to the neoliberal program, oppressing the global south and producing a crafty and contemporary colonization through the practice of sanctioned, intentional debt-inducing economic practices between global north and south (Perkins, 2004). Lempert and Nguyen (2011) argue national leaders of the global North desire global warming as a means to increase their nation's riches while simultaneously furthering disorder, vulnerability and poverty of the global South, the effect being more extreme geopolitical power imbalances. Throughout all these efforts, a global perspective on social justice and welfare is imperative: Environmental justice began as a social movement to protect the environmental and human rights of racialized communities, poor peoples, oppressed peoples, and it must remain a social movement (Adamson, Evans, Stein, 2002) with both a local and global scope. This requires that attention also be paid to how our overreaching is impacting women and children. Monbiot (2008) observed modern capitalism is defined by our pathological indifference to exposing others to risk. Those most susceptible are racialized others, women, and children. For this reason Glazebrook (2010) refers to environmental devastation as "negligent genocide and gendercide." Attending to cultural diversity, linguistic diversity, and biodiversity is crucial, for our future survival and humanity depends on this. In our activism, as Diamond (2005) suggests, the practice of "long-term thinking" is indispensable. This needs to be more than thinking of posterity; it needs to be bi-directional, starting from our presentist position looking both forward and backward, containing both a vision for the future and lessons from the past on which that future vision is built.

Many professions have a momentous role to play in the transformation. All these suggestions for action involve the use of well-honed professional and civic skills. Social Work, for example, is a unique helping profession for its strong commitment to contextual considerations beyond the person, making environmental considerations paramount. Professional training which enables interventions at multiple intersecting scales (individual, community, policy) ideally positions social work to address social, political, and environmental issues while working toward structural change. Beck (2009), discussing climate change, argues, "[W]e have to re-address the question of responsibility, and we have to re-address the question of global justice....We need a frame of reference to talk about responsibility and global justice" (100-101). Many helping professions have roots in social justice and a normative ethos, and are well situated to take more active leadership roles in environmental responsibility, activism, ethics, and scholarship.

Conclusion

This article examined the constructs sustainable development and sustainability and presented them as outmoded concepts given the severity of our present environmental challenges and the relevant need for new framings. Having explored the deleterious role of the current economic model and the way the dominant and deficient cultural narrative shapes thoughts, worldviews. social formations, and individual and collective actions, the inadequacy of our environmental response was contextualized. While not intended as an exhaustive list, some suggestions for engaged practice of environmental responsibility were advanced in the final section. Understanding of the extent and danger of environmental collapse is built upon modern scientific knowledge. However, effective strategies require that we not only build on this knowledge but also move to a more inclusive narrative that removes polarized thinking. The poet Rilke advised, "Take your well-disciplined strengths and stretch them between two opposing poles" because a form of profound learning occurs through this practice. Perhaps some poles to be considered (admittedly not all are opposing, some more nested) include the personal and the political, individual and community or collective, humankind and all species, humanism and biocentrism, as well as notions of effluence and affluence, progress and destruction, growth and de-growth, defeat and survival, indifference and responsibility. I would suggest that we take the line formed by the two poles and loop the end points into a circle better to recognize the interconnections, interdependencies, and circularity at the heart of all these issues as we consider our possible responsibility responses.

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