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ANALYSIS

Sustainable development in a post-Brundtland world

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Abstract

Not yet two decades after the publication of *Our Common Future*, the world's political and environmental landscape has changed significantly. Nonetheless, we argue that the concept and practice of sustainable development (SD)–as guiding institutional principle, as concrete policy goal, and as focus of political struggle–remains salient in confronting the multiple challenges of this new global order. Yet how SD is conceptualized and practiced hinges crucially on: the willingness of scholars and practitioners to embrace a plurality of epistemological and normative perspectives on sustainability; the multiple interpretations and practices associated with the evolving concept of "development"; and efforts to open up a continuum of local-to-global public spaces to debate and enact a politics of sustainability. Embracing pluralism provides a way out of the ideological and epistemological straightjackets that deter more cohesive and politically effective interpretations of SD. Using pluralism as a starting point for the analysis and normative construction of sustainable development, we pay particular attention to how an amalgam of ideas from recent work in ecological economics, political ecology and the "development as freedom" literature might advance the SD debate beyond its post-Brundtland quagmire. Enhanced levels of ecological degradation, vast inequalities in economic opportunities both within and across societies, and a fractured set of institutional arrangements for global environmental governance all represent seemingly insurmountable obstacles to a move towards sustainability. While these obstacles are significant, we suggest how they might be overcome through a reinvigorated set of notions and practices associated with sustainable development, one that explicitly examines the linkages between sustainability policies and sustainability politics.
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1. Introduction

The publication of *Our Common Future* in 1987 marked a watershed in thinking on environment, development, and governance. The UN-sponsored World Commission on Environment and Development (WCED), led by Gro Harlem Brundtland, issued

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a bold call to recalibrate institutional mechanisms at global, national and local levels to promote economic development that would guarantee "the security, well-being, and very survival of the planet" (WCED, 1987, p. 23). The call for sustainable development was a redirection of the enlightenment project, a pragmatic response to the problems of the times. While the broad goals were widely embraced, critics argued that steps toward their implementation would be thwarted; first, by fundamental contradictions between the renewed call for economic growth in developing countries and enhanced levels of ecological conservation; and, second, by the inattention to power relations among the local-to-global actors and institutions supporting unsustainable development (see Lélé, 1991; The Ecologist, 1991). In retrospect, 18 years later, the critics appear to be more or less correct. While more attention is being given now to the environmental consequences of particular development projects, the primary drivers of environmental degradation–energy and material use–have burgeoned. The cooperative global environmental governance regime envisioned at the 1992 Earth Summit in Rio is still in an institutional incubator while neoliberal economic globalization has become fully operational (Haque, 1999). And inequalities in access to economic opportunities have dramatically increased within and between most societies, making pragmatic governance toward social and environmental goals increasingly difficult. Why then revisit an effort that was, in many ways, so poorly conceived and that has been so overwhelmed by history?

First, *Our Common Future* focused on the critical issues of equity and environment and raised important ethical considerations regarding human-environment relationships (Langhelle, 1999) that remain highly relevant. The decline in equity and environmental quality since this report should certainly give pause to proponents and critics alike; the failure to stem the tide of unsustainable human activities can be linked to both ineffective institutions and a general lack of political will on the part of governments and citizens at multiples scales. The rise in our scientific understanding of climate change and other global biophysical transformations and their profound implications for the health of the planet, along with the increasing awareness that solutions will have to address vast inequities in human development capabilities, underscores this point. Thus, the concept and practice of sustainable development (SD)–as guiding institutional principle, as concrete policy goal, and as focus of political struggle–remains salient in confronting the multiple challenges of our new global context.

Second, *Our Common Future* marked, anchored, and guided the rise of a remarkable political debate, indeed a whole new political discourse across contesting interests, from grounded practitioners to philosophical academics, from indigenous peoples to multinational corporations. Sustainability may yet be possible if sufficient numbers of scholars, practitioners and political actors embrace a plurality of approaches to and perspectives on sustainability, accept multiple interpretations and practices associated with an evolving concept of "development", and support a further opening up of local-to-global public spaces to debate and enact a politics of sustainability. Ecological economics and other transdisciplinary modes of knowledge production are vital to such endeavors.

The historical developments since the publication of *Our Common Future* bring us to the third point. The early critics of the Brundtland Report did not foresee the decline in the legitimacy of authoritative science or the rise of a more discursive, democratic science. They did not predict the breakdown in the philosophical underpinnings of the market paradigm or the grass-roots opposition to globalization. They did not anticipate the rise of ecological economics and political ecology or the new thinking generally in the social sciences stimulated by failures of equating development with economic growth.

The critics of sustainable development also did not foresee important socio-cultural changes, exemplified by the rise of fundamentalist beliefs and activism, both political and violent, across religious movements, around the world (Almond et al., 2003). While many recognize the rejection of modernity by Islamic fundamentalists and its impact on the development of nations in the Middle East, scholars are almost in denial of the influence of fundamentalist beliefs–or more broadly the "politics of particularistic identities" (Kaldor, 2001, p. 70)–on the politics of the United States, India, and Israel. Fundamentalists do not accept the separation of church, state (and economy), and science. Their religious beliefs determine their values, what they accept as knowledge, and their understanding of appropriate social order. This rejec-

tion of religious tolerance, democratic politics, and the role of science is a serious challenge to the enlightenment project, and to people's future on earth. Culturally and politically significant fundamentalisms have arisen, especially within the United States in the late twentieth century, in part due to the "strategic promotion" of a narrowly rational ideology of individualism and competitiveness by the central state and business, which in turn "has produced an accompanying ubiquitous yearning among individuals for social connection and 'meaning' in their lives" (Szreter, 2002, p. 607). This yen for social connection has been realized, in part, through the rise of evangelical religious groups, which "tend to be defensive, identity-protecting, self-buttressing forms of bonding social capital, not expansive generous forms of connections with others, who are not like oneself" (Ibid.). The rise of fundamentalisms can thus be tied directly to contemporary social and cultural politics, and can also be seen as evidence of the failure of the modern separation of values, facts, and politics that our own proposal for a renewed approach to sustainable development (SD) addresses.

In light of these widespread socio-cultural transformations, this paper offers rationales for renewed focus on SD as an important discourse that still can help us sort through the hoary environment and development dilemmas of today. A more explicit emphasis on the normative aspects of research, a rigorous understanding of freedom-oriented (as opposed to growth-oriented) development, and an explicit recognition of the critical role of politics inform our understanding of how to push the notion of SD forward into more fruitful conceptual and pragmatic territory[1].

We continue with, first, a discussion of the Brundtland Report's crucial arguments and an attempt to place them within the context of political-economic and institutional changes in global society that have transpired in the years since the document's publication. We also pay attention to the ways in which a Brundtland-defined notion of SD has been both supported and deconstructed in subsequent debates. Next, we advance the case for pluralism (Norgaard, 1989) in the analysis and normative construction of sustainable development, highlighting how an amalgam of ideas from recent work in ecological economics, political ecology, and freedom-oriented development might advance the SD debate beyond its post-Brundtland quagmire. A pluralistic, critical approach to sustainable development offers fresh interpretations of intractable environment-development dilemmas. We conclude with an outline of possible routes towards a pluralistic, theoretically informed praxis of sustainable development based on a renewed commitment to practices of deliberative democracy.

2. Our common future in a turbulent world

The Brundtland Report serves as a vital historical marker for several reasons. First, Brundtland's definition of sustainable development–invoking the needs of future generations counterbalanced to the current unmet needs of much of the world's population–is the most widely accepted starting point for scholars and practitioners concerned with environment and development dilemmas. Second, Brundtland signals the emergence of "the environment" as a critically important facet of international governance. Thus, however crude and incomplete it might seem, the WCED indicates a recognition on the part of national governments (both North and South), and practitioners of "development" at every scale, that ecological, economic and equity questions are deeply interconnected. Finally, we argue that *Our Common Future* is a critical temporal marker. It initiated an explosion of work on development and sustainability through which we chart the course of sustainability thinking and practice. In addition, several interdisciplinary fields have emerged in parallel that–as we shall subsequently argue–provide a foundation for a renewed intellectual, ethical and political commitment to sustainability.

Our Common Future firmly established SD as a component of international development thinking and practice. It also helped set in motion what many now argue are the three mutually reinforcing and critical aims of sustainable development: the improvement of human well-being; more equitable distribution of resource use benefits across and within societies; and

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[1] Our arguments complement and extend recent discussions within ecological economics (see in particular Norton and Toman, 1997; Pezzoli, 1997; Meppem, 2000; Müller, 2003; Hayes and Lynne, 2004; Norgaard, 2004; Robinson, 2004; Shi, 2004) and cognate social sciences (see Princen, 2003; Agyeman and Evans, 2003; Zimmerer and Bassett, 2003).

development that ensures ecological integrity over intergenerational timescales[2]. Yet beyond Brundtland's rhetorical and conceptual role, what institutional headway has been made toward addressing SD? Reading the list of institutional and legal changes recommended by the WCED (e.g., reform of national policies and institutions to reflect sustainability goals; strengthening the capacities of environmental bureaucracies to confront ecological problems; directing much greater levels of funding towards environmental assessment, monitoring and restoration; emboldening international environmental agreements and organizations) is a sobering exercise. Few have been enacted, and those that have been enacted have been so in ad hoc fashion. In the preface to the report, Gro Harlem Brundtland insists that the "changes in attitudes, in social values, and in aspirations that the report urges will depend on vast campaigns of education, debate and public participation" (WCED, 1987, p. xiv), yet the few early signs of such campaigns have largely faded.

A recent study (Lafferty and Meadowcroft, 2000a) that examines the extent to which sustainable development policies have been achieved in industrialized countries confirms an impression of inaction and uneven implementation among high consumption societies. Lafferty and Meadowcroft (2000b) offer several illuminating summary observations regarding the implementation of SD policies in the European Union, as well as the specific policy initiatives of the Netherlands, Sweden, Norway, the United Kingdom, Germany, Australia, Canada, Japan, and the United States. One would reasonably expect these to be leaders in environmental policies given overall levels of wealth and mechanisms for citizen participation in decision making. Yet in almost every case, environmental concerns have not been sufficiently integrated with economic sectors and decision-making, an "essential postulate" of sustainable development (Ibid., p. 433). While strategic plans for implementing and monitoring sustainable development at national

and local levels are numerous, these plans have been "unconsolidated" and suffer from lack of a constituency either within or external to government channels. While numerous mechanisms for increasing public participation have been created in the ten countries to "draw a wider range of social actors into social debate," none seem to have enabled a shifting of power away from those groups advocating a dampened down version of SD. Environmental policy has certainly been internationalized in the sense of an impressive number of international accords focusing on resources (or zones of resource degradation) shared across political boundaries, something explicitly suggested by WCED. Yet global trade, signified most pointedly by the power of the WTO, now "serves as a locus for disputes over environment and development priorities," a move that in effect deprioritizes the environment as a focus of serious political action (Lafferty and Meadowcroft, 2000a,b pp. 433–437). Environmental advocates argue that in fact the WTO actively undermines global environmental governance by urging the commodification of common-pool resources and weakening of local and national environmental regulations (Conca, 2000).

While the effectiveness of initiatives in the above arenas (environment-economy integration, strategic plans, participation and internationalization) might be labeled as "mixed", the more intractable aspects of transnational sustainable development initiatives are marked by even less progress. For example, support for developing countries in implementing SD has been "modest" in terms of direct aid (which has declined in recent years as a share of wealthy countries' GNP), technology transfer and debt relief. For their part, many states of the South have simply ignored SD precepts flowing out of the UNCED process of the early 1990s. Progress towards sustainable forms and levels of production and consumption has been even more limited. Lafferty and Meadowcroft state flatly, "efforts to address the key challenge of the Brundtland Report–*to change the equality of growth*–have been modest" (2000, p. 438) [emphasis in original]. In sum,

the performance of the governments we have examined in this study is both impressive and disappointing. In some ways much more has been done than a skeptic might have anticipated. On the other hand, far

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[2] This is often characterized as the "three-legged stool" model of SD. This widely disseminated model depicts SD as three overlapping spheres: economic security, ecological integrity, and social equity. While this may serve a useful heuristic purpose, the actual interrelations of these three ideals are complex and often contradictory in practice.

less has been achieved than that minimum for which a committed proponent of sustainable development might have hoped (Lafferty and Meadowcroft, 2000b, p. 440).

The study concludes that there is no single explanation for the performance of national governments. What combination, then, might explain this lack of progress? We contend that at least a partial answer can be found in the chaos resulting from an array of global political and economic institutions and processes over the past fifteen years. Some examples help shed light on this argument.

One of the changes in the global institutional landscape for encouraging sustainability policies is the unorganized and unpredictable way in which notions of multilateralism and international cooperation have ebbed and flowed. While the United States recently has been in a trenchant retreat from multilateralism and a move towards the unilateral use of force in world affairs, earlier the European Union progressed towards ever greater levels of consolidation and integration across a range of political, economic and environmental sectors. Recall the Bruntland Report's warning that "(p)erhaps our most urgent task today is to persuade nations of the need to return to multilateralism" (WCED, 1987, p. x). What we are seeing then is a simultaneous withdrawal from and institutionalization of multilateralism, in quite unexpected ways[3]. And this greatly complicates questions of sustainability, particularly efforts to inculcate an environmental sensibility and priority within institutions of international governance. Insofar as those institutions (e.g., the United Nations, multilateral agreements) are weakened, their capacity to advance any "global" agenda, much less sustainable development, is likewise lessened. Ironically, but perhaps not unexpectedly, those international institutions that have been strengthened in the years since Brundtland are the World Trade Organization (WTO) and other multilateral trade agreements that might reasonably be expected to champion economic growth and market liberalization over environmental and social goals (see Haque, 1999; McCarthy, 2004).

While the precise terms of the debates differ, there exist compelling theses about the concurrent processes inducing global political–economic turbulence. These include: the emergence of the United States as dominant actor at the international level and its hegemonic power to influence global political and economic trends; the decline of the nation-state-and concomitant rise of the agents of private capital—as the most powerful economic actor within world politics; the widespread disempowerment of non-state, subordinate social actors as economic forces become delinked from states and effectively transnational in their span; and the shifting alignments of global political forces along "civilizational" and racialized lines (Arrighi and Silver, 1999). Many of these processes are seen as prominent aspects of globalization (see Amorre et al., 2000; Appadurai, 2001), which has in turn contributed to a global increase in economic inequality and environmental deterioration by concentrating power in the hands of those who benefit from unsustainable forms of growth and resource use (Woods, 1999; Borghesi and Vercelli, 2003). Add to this the post-911 prioritization of security from terrorism as the most urgent problem on the international agenda, and we are confronted with a world where, as mentioned above, environmental policy and sustainability concerns are seen as even more secondary by a majority of the world's governmental actors.

Environmental dilemmas contribute to the general global social turbulence that impedes sustainability because they cannot easily be classified according to scale or constituency. According to James Rosenau (2003, p.16), sustainability is difficult to classify as a "globalizing" force because it falls "squarely between fragmentation and integration." Environmental issues "are pervasively integrative in the sense that the value of preserving the environment and maintaining its viability is widely shared at every level of community," yet "the very same issues have led to pervasive and divisive fragmentation among and within groups, communities, countries, and international systems when actions designed to implement the proposed commitments proved to be highly controversial and...largely ineffectual" (Ibid.). The 1992 Rio Earth

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[3] One of the most difficult issues concerns the United States and what several scholars have claimed to be its empire-building activities at the global scale (e.g., Harvey, 2003; Mann, 2003; Johnson, 2004). Johnson in particular offers a provocative account of the militarization of United States society and political economy over the course of the 20th century.

Summit–or the United Nations Conference on Environment and Development (UNCED)–and its follow-up World Summit on Sustainable Development (WSSD) in Johannesburg in 2002 exemplify these contradictory tendencies.

At one level, UNCED ushered in an era of what Bernstein (2002) terms "liberal environmentalism" at the planetary scale. Liberal environmentalism postulates no inconsistencies among the liberalization of national and global trade and financial practices, international environmental protection, and sustainable economic growth. Furthermore, these goals are seen as mutually supporting (Bernstein, 2002, p. 4). More specifically, the Rio compromise firmly inserted several key elements into the global environmental governance agenda: state sovereignty over resources in the political sphere; the advocacy of free trade and open markets (at global levels) in the economic sphere; and, in the management sphere, the polluter pays mechanism and the precautionary principle (Ibid.). This last point is important because it also signals some of the social-democratic tendencies apparent within the UNCED process. While perhaps unrealistic at the level of global politics, UNCED attempted, through treaties such as the Convention on Biological Diversity and the Framework Convention on Climate Change, to foster the coordination of markets and pubic policies at the global level while maintaining a commitment to sovereignty.

This is certainly a large shift in the terms of the debate from the Stockholm Conference of 1972. Though deeply divided between North and South with respect to the relative importance of environmental problems and global-scale inequities, those concerned about increasing indications of global environmental degradation decidedly favored statist and strong managerial approaches. The so-called Rio compromise is also a significant shift from the 1987 WCED process when there was a more overt attempt to strike a balance between state interventions and market mechanisms in achieving environmental and developmental goals (Bernstein, 2002). With liberal environmentalism now firmly a part of global environmental governance, many of the goals and recommendations of UNCED were carried forward to the 2002 World Summit on Sustainable Development (WSSD) meeting in Johannesburg, South Africa. Yet the familiar schisms between Northern and Southern

governments–over, for example, agricultural subsidies in industrialized countries, unmet aid targets for sustainable development initiatives, and climate change policies–and between civil society and business interests were readily apparent[4]. One of the most notable aspects of the Johannesburg Summit was the pronounced presence of transnational corporations touting their interest in sustainable paths of development (Burg, 2003). This brief foray into the evolving character of international environmental governance suggests that even at the level of "official" (e.g., inter-state) institutional efforts at crafting sustainability policies, processes of both integration (e.g., a consensus among state actors on at least some of the precepts of liberal environmentalism) and fragmentation (e.g., disagreements between industrialized and developing countries) are at work. But what about non-global scales of governance?

We have emphasized global political economy thus far because we believe these macro-level institutions and processes are the most difficult to disentangle and alter. Yet we recognize the numerous community-scale and local efforts (e.g., initiatives to implement Local Agenda 21 principles throughout dozens of European cities; the environmental justice movement in the United States; the work of numerous Southern NGOs who invoke sustainability principles to lobby for poverty reduction, control over resources and ecological integrity) to take seriously the ideals of SD presented by Brundtland[5]. We have also side-stepped important debates about ecological modernization (Hajer, 1995; Buttel, 2000; Mol, 2002) and the (closely related) rise of market-based environmental

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[4] Summing up the perspectives of many of the civil society organizations from developing countries, one observer commented that "Johannesburg indeed represented a step backward from Rio," and that NGOs from both the South and the North "found the Johannesburg Declaration and Plan of Implementation too weak to offer anything meaningful" in the way of movements toward sustainability (Mehta, 2003, p. 127). On the other hand, the Johannesburg Summit witnessed some unprecedented cooperative efforts between civil society and the business community, for example Greenpeace's joint presentation with the World Business Council on Sustainable Development (WBCSD) as they embarked on a program to tackle climate change (Ibid., p. 125).

[5] For salient evidence, see the numerous cases presented in Evans (2002) and Agyeman et al. (2003). See also Curtis (2003) for a comprehensive overview of the precepts and practices of an eco-localist perspective.

policy instruments in the 1990s (Eckersley, 1995). These developments coincide with the rise of sustainable development, and represent ways in which national governments are attempting to adapt sustainable development precepts to their specific policy contexts, albeit this is largely a Northern phenomenon. The post-Brundtland world has also changed quite drastically in terms of new technologies (e.g., the biotechnology revolution, the dramatic transformations in information and communications technologies) that intersect with sustainability questions in interesting ways (see Clark et al., 2002), not least in the prospects for a "green" industrial revolution (White, 2002). These are all important attributes of the post-Brundtland world, and ones that must be more seriously addressed in a more thorough analysis of sustainability.

What all of this means for advancing the politics and policies of sustainable development is that one of the central struggles of the coming years will simply be to get sustainability questions on the international agenda or, failing that, turn to more unconventional routes of citizenship and advocacy. In fact, the present chaos–"fragmegration" in Rosenau's unwieldy turn of phrase–of the world system could (and perhaps should) be seen as a time for creative foment. This is the view of John Dryzek, who sees in sustainable development a crucial rallying point for global civil society.

The actors and agents highlighted in the discourse [of SD] are not realism's states or market liberalism's economic actors, but rather political bodies above and below the state, international organizations and citizens' groups of various kinds. Thus sustainable development is a discourse of and for international civil society…Sustainable development's function in the international system is to provide a conceptual meeting place for many actors, and a shared set of assumptions for their communication and joint action (Dryzek, 1999, pp. 36–37).

While we explore the dialectical relationship between global sustainability politics and ideas of democratizing sustainable development agendas more fully in the conclusion, we note here that regardless of its faults, the Brundtland process has played a major role in opening up new spaces for advancing widely shared social and ecological goals.

3. Unity in plurality? Transcending SD and its critics

How might scholars, development practitioners, environmental managers, sustainability advocates and government planners better confront the turbulent and uncertain conditions that constitute the post-Brundtland world? To move toward a response, this section undertakes, first, an examination of the conceptual evolution of SD since Brundtland, focusing in particular on how both proponents and critics have framed their understandings of SD[6]. Second, we advance the case for a pluralist conceptualization of SD policies and politics drawing on ecological economics, political ecology and cognate social sciences. We argue that a pluralist approach might be used as part of a research and action agenda to confront the complexity of sustainability dilemmas within a turbulent global landscape.

3.1. Sustainable development and its malcontents

Mainstream SD has proceeded apace since the advent of the Brundtland Report. While the risk of cooptation and abuse of SD, often entailing a "watering down" of its more radical prescriptions for enhancing sustainability, has been repeatedly noted (see Lélé, 1991; Luke, 1995; Sneddon, 2000; Fernando, 2003), the concept is now firmly entrenched within many government offices, corporate boardrooms, and the hallways of international NGOs and financial institutions. At the very least, the staying power of SD can be explained by its propensity for providing some common ground for discussion among a range of developmental and environmental actors who are frequently at odds (Pezzoli, 1997). Its strongest boosters–for example, those in international environmental NGOs and intergovernmental agencies–thus feel fairly comfortable advancing a concept that is most effective in bringing former adversaries to

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[6] Many of the divisions that characterize post-Brundtland debates over sustainable development are traceable to the Report itself, which, at the level of environment and development policies and action, contains both reformist (e.g., the emphasis on enhanced human development mechanisms) and radical (e.g., the explicit linking of poverty and ecological sustainability) aspects (Robinson, 2004, pp. 370–373).

the table even while accomplishing precious little in the way of concrete outcomes. Supporters of SD at these levels continue to advocate reform of existing institutions to better accommodate SD principles.

Conversely, critics of the mainstream position advocate more radical societal changes, and have comprehensively and incisively deconstructed SD's basic contradictions (e.g., Redclift, 1987; J. O'Connor, 1994) and its power-laden, problematic assumptions (e.g., Escobar, 1995). However, they have left little more than ashes in its place. We can agree with Escobar, that the "Brundtland Report, and much of the sustainable development discourse, is a tale that a disenchanted (modern) world tells itself about its sad condition" (Escobar, 1996, pp. 53–54). At the same time, we argue as well for a resurrection of SD into a more conceptually potent and politically effective set of ideas and practices that comprise an empowering tale. We advocate a middle and pragmatic path, one that takes seriously calls for radical changes in our ideas and institutions dealing with sustainable development, while also holding out the possibility that genuine reform of current institutions may be possible. Partial reform may pre-empt necessary radical change, but it may also make it easier in the future[7].

Our first intervention is to declare a truce among the epistemological and methodological schisms that separate the defenders of sustainable development from critics of the concept. For its advocates–identified most closely with development practitioners situated in a variety of United Nations offices (e.g., Untied Nations Development Program), government agencies (e.g., ministries and departments of natural resources and environment), and corporate boardrooms (e.g., the Business Council for Sustainable Development)–sustainable development as laid out by the WCED (broadly) remains the most tenable principle of collective action for resolving the twin crises of environment and development. For many academics–particularly those associated with ecological economics and related fields (see Söderbaum, 2000; Daly and Farley, 2004)–sustainable development offers an attractive, perhaps the only, alternative to conventional growth-oriented development think-

ing. However, for some of its socio-cultural critics (e.g., Escobar, 1995; Sachs, 1999; Fernando, 2003), mainstream SD is a ruse, yet another attempt to discount the aspirations and needs of marginalized populations across the planet in the name of green development. Other critics, while broadly sympathetic towards its goals, point out SD's fundamental lack of attention to the powerful political and economic structures of the international system that constrain and shape even the most well-intentioned policies (e.g., Redclift, 1987, 1997)[8]. For critics grounded in the ecological sciences (e.g., Frazier, 1997; Dawe and Ryan, 2003), SD is unforgivably anthropocentric and thus unable to dissolve the false barriers between the human sphere of economic and social activities and the ecological sphere that sustains these activities[9].

These divisions reflect more than simply different value positions and attendant political goals. Proponents of a mainstream version of SD tend to see knowledge production (epistemology) and research design (methodology) in very specific terms. At the risk of caricature, this position demonstrates tendencies towards individualism, economism and technological optimism in assessing how knowledge about the social world is brought into being (Faber et al., 2002; Robinson, 2004). SD advocates also place a great deal of faith in quantitative representations of complex human-environment relations, in part because of a desire to present generalizable knowledge to policy makers. Conversely, critics of SD are for the

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[7] We are in broad agreement with Robinson (2004, p. 380), who perceives SD as an "inherently normative concept" subject to contestation, confusion and uncertainty.

[8] Redclift's early work on sustainable development, published roughly the same time as the Brundtland Report, is quite sympathetic to the goals of the WCED, although he is often cited as an outspoken critic of mainstream SD. He states quite clearly that "the Brundtland Commission is expressing views similar to those expressed" in Sustainable Development: Exploring the Contradictions, and that the full document (at the time unpublished) will be "worth serious attention" (Redclift, 1987, p. 14). In a testament to his prescience, he also asserts that it "remains unlikely…that the developed countries (or even the developing ones) will put into action the measures advocated by the Brundtland Commission" (Ibid.).

[9] Richardson (1997, p. 57) gives a particularly harsh assessment of the Brundtland Report, calling it a "sham" process and a "political fudge" that fails to face up to the basic contradiction of how to reconcile the "expansionist nature of industrial society" with the limitations presented by the planet's array of self-regulating ecological systems.

most part social constructivist in perspective, arguing that knowledge of the world always represents a series of mediations among human social relations and individual identities (see Robinson, 2004, pp. 379–380; Demeritt, 2002). Critics are also more apt to stress the historical contingency of development processes, and undertake qualitative studies grounded in a case study methodology. Perhaps most importantly, while advocates of a conventional SD continue to perceive the policy process as a genuine pathway towards reform, critics have largely given up on state-dominated institutions as a means of change. Despite these substantial differences in perspective, our intimation is that both advocates and critics would agree that a socially just and ecologically sustainable world, or even an approximation, would be a desirable end.

3.2. Embracing pluralism: ecological economics, political ecology and freedom-oriented development

We argue that we can move beyond the ideological and epistemological straightjackets that deter more cohesive and politically effective interpretations of SD, in order to operationalize the aforementioned "truce", by embracing pluralism. We argue that ecological economics, as an explicitly transdisciplinary enterprise, in tandem with political ecology, freedom-oriented development, and deliberative democracy, offer important means for advancing our understandings of the local–global politics of sustainability. Recent discussions within ecological economics have highlighted the need for the field to expand its methodological and epistemological purview (Gale, 1998; Peterson, 2000; Nelson, 2001; Muradian and Martinez-Alier, 2001; Martinez-Alier, 2002) to engage more directly with a wide variety of non-academic political actors (Meppem, 2000; Shi, 2004; Norgaard, 2004) and to confront its future direction as either a more specialized, if somewhat narrow "normal" science or a more integrative, creative "post-normal" science (Müller, 2003). Ecological economics has also introduced a series of innovative methodological approaches for interpreting and assessing sustainability. Some of these include calculations of intergenerational equity (Howarth, 1997, 2003; Padilla, 2002), differentiations of "weak" versus "strong" sustainability (in essence debates over the substitutability of ecosystem-derived resources) (Norton and Toman,

1997; Neumayer, 2003), the valuation of ecosystem services (Costanza et al., 1997; Spash, 2000), broadening our interpretation of environmental "values" (Bukett, 2003) and the burgeoning work on sustainability indicators (e.g., Bell and Morse, 1999). Taken as a whole, ecological economics may be understood as an attempt to refine and implement the broad vision of SD advanced by Brundtland. It has done so, largely thus far, by providing a bridge between economics and ecology (see Norton and Toman, 1997). We contend that additional bridges need further development.

For example, the role of power, from local to global scales, needs to be more consistently incorporated into ecological economics. The analysis of power relationships is a central concern of political ecology, particularly power as expressed through the discourse and practices of multiple actors (including households, nongovernmental organizations [NGOs], social movements, communities, capitalist enterprises, and state agents and institutional networks) who cooperate and come into conflict over specific development projects or other state-and market-mediated activities (Peluso and Watts, 2001, p. 25). Key contributors to political ecology including Joan Martinez-Alier (2002), Martin O'Connor (1994a,b), and Ramachandra Guha (Guha and Martinez-Alier, 1999; Guha, 2000) have provided leadership and intellectual fuel to ecological economics, yet the vast majority of articles in the journal *Ecological Economics* do not address the social and ecological implications of power relations. The field of political ecology has also attracted an array of anthropologists, geographers, environmental historians and associated social scientists united by efforts to clarify the ways in which resource degradation and conflicts are derived from particular political and economic processes (Emel and Peet, 1989). Political ecologists also stress the need to take seriously recent insights from ecological theory, particularly those associated with nonlinearity and complexity (Zimmerer, 1994), and undertake research that seeks to link a rigorous characterization of ecological transformation to the local, national and global processes (cultural, political–economic) that are driving such changes (see Zimmerer and Bassett, 2003). The result has been a series of case studies–mostly but not exclusively focused on third-world contexts (see McCarthy, 2001; Walker, 2003)–detailing the varying ways that environmental conflicts (over forests, water, fisheries, agroecosys-

tems, biodiversity and other socioecological entities) are constituted through struggles over access to resources and the benefits accruing from resource exploitation (Peluso, 1992; Bryant and Bailey, 1997).

Additionally, both ecological economics and political ecology have offered potent critiques of development theory and practice (see M. O'Connor, 1994a; Peet and Watts, 1996). At a general level, these are by now well-rehearsed. Indeed, anti-development narratives have progressed to the point where a fairly well-defined field–post-development studies–is emergent (see Rahnema and Bawtree, 1997). In spite of, and in some ways because of, the numerous and varied deconstructions of 'development' (see Ekins and Max-Neef, 1992; Crush, 1995; Sachs et al., 1998), we argue that the linkage of 'sustainability' with the vilified concept of 'development' need not be the death-knell of sustainable development that many have taken it to be. Again, in the interests of reconstructing the conceptual landscape of sustainable development, we argue that some politically savvy and ethically defensible semblance of 'development' is salvageable. And a useful place to start is found in the work of Amartya Sen (1999).

Development as Freedom is an incisive and comprehensive analysis of the myriad ways in which economic and social debates about "development" have failed to struggle with fundamental issues regarding ethics, human rights and individual freedoms. These are issues that concerned the political economists of the 18th and 19th centuries. Recovering these concerns, Sen uses freedom as a lens to interrogate the traditional foci of development studies and practice such as poverty, food production, women's role in development, market versus state institutions, welfare and culture. We contend that Sen's approach peels back a great deal of the posturing, reification and instrumentalism found in the development literature. It does so by making the normative claim that development is ultimately about freedom (e.g., political rights and responsibilities, economic and social opportunities, transparency guarantees in social interactions), in contrast to a narrowly defined yet widely adopted identification of development with aggregate economic growth. If there is one noticeable gap in Sen's analysis, it is a lack of concern with the environment and ecological changes.

One of Sen's most important contributions is the way he uses a "freedom-based" understanding of de-

velopment to confront narrower versions focused solely on aggregate levels of economic growth. In a related work, Anand and Sen (2000; see also Brekke and Howarth, 2002) provide a trenchant critique of what they call the "opulence-oriented approach" to development[10]. As they put it, the "fundamental difficulty with the approach of wealth maximization and with the tradition of judging success by overall opulence of a society is a deep-seated failure to come to terms with the universalist unbiasedness needed for an adequate understanding of social justice and human development" (Anand and Sen, 2000, p. 2031). In Sen we can begin to see a way to radically alter the general orientation of development, away from its obsession with an aggregate, ill-defined wealth towards a rigorously defined notion of freedom that builds on ideals of social justice and human dignity.

Taken together, the three approaches sketched above offer a wide range of methodologies, normative positions, and ways of understanding human-environment relations from which to approach sustainable development discourses and practices in the post-Brundtland era. Table 1 summarizes the contributions of these approaches to a pluralistic, transdisciplinary strategy for confronting sustainability[11]. We argue that such an approach can begin a conversation about critical aspects of sustainability that hitherto have been overlooked in the numerous debates about the subject. It is our sense that the normative underpinnings of sustainable development (e.g., ethical commitments across generations, development as enhanced freedoms) and the political programs that might follow have received some treatment in the

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[10] As Brekke and Howarth (2002) explore in detail, a variety of evidence suggests that economic growth both satisfies current preferences and creates new wants through processes of social signaling and identity formation. Given these effects, the assumption of a one-to-one relationship between per capita income and human well-being breaks down, and individuals can have incentives to pursue increased consumption levels even when doing so reduces welfare in society as a whole.

[11] We stress that this is not the only blend of approaches that might offer insights into sustainability dilemmas and a politics of sustainability. We place far greater emphasis on the need to think pluralistically about sustainable development and its connotations than on the "correct" approaches to place in the mix. We would argue, however, that the particular strengths of the three approaches presented here produce insights that may transcend stale First World–Third World and radical-reformist dichotomies.

Table 1
Major elements of three approaches to sustainable development

Ecological economics	Political ecology	Development as freedom
Critique of neoclassical economic arguments (e.g., "development as growth" model)	Radical critique of global political economy and its ecological effects	"Internal" critique of development theory
Incorporation of ecological concerns into economic methodologies and theory	Sensitivity to structural forces impeding sustainability transformations; attention to discourse and power	Prioritization of political rights, basic human needs, economic opportunities and equity over aggregate economic output in development thinking
Concern with intergenerational equity, 'degrees' of sustainability, valuation	Incorporation of ecological concerns into critical social theory	Normative: human well-being; expansion of individual rights; maintain focus on development but with radical reorientation
Normative: ecological and social sustainability; environmental and social ethics; reform of existing institutions	Normative: social justice, equity and ecological integrity; radical changes necessary in existing institutions	

context of SD debates, but have never been satisfactorily used together.

It is our hope that the socio-theoretical and normative tools sketched above be used to (1) continue the ongoing interrogation of sustainable development as a policy discourse and development practice, and (2) reconstruct a normative vision of sustainable development that is simultaneously attuned to the danger of cooptation on the part of powerful actors hoping to give unsustainable activities a "sustainable" veneer and the need for a sustainability politics that transcends calls for the "overhaul of everything". In a post-Brundtland world, decisions over environmental governance (e.g., the deployment of ecologically deleterious technologies, economic development pathways and human consumption patterns) are a function of both fragmenting and integrating forces occurring at multiple scales. Our vision of pluralistic sustainability research and praxis calls for recognition of the inherently political nature of the conflicts that arise from such forces, for example, over Third World states' desire to construct massive hydroelectric schemes or industrialized countries' relative inaction on climate change. Advocates of sustainable development might wrestle with these conflicts in any number of ways–by inserting oneself as facilitator, advocate or witness into discussions over specific projects, or by researching and calling for a decision-making process that incorporates multiple perspectives–but it is our sense that this is how we must proceed for any advancement of SD policies and politics.

4. Prospects for sustainability in the post-Brundtland global order

Burgeoning levels of energy consumption, enhanced levels of ecological degradation, a growing public mistrust of science, vast inequalities in economic opportunities both within and across societies, and a fractured set of institutional arrangements for global environmental governance; all represent seemingly insurmountable obstacles to a move towards sustainability. During the nearly 20 years since Brundtland, the world is a vastly different place, in part because of Brundtland but largely because of changes that were difficult to perceive at the time *Our Common Future* was produced. While many have long complained that SD is difficult to define, our knowledge of what sustainability means has increased considerably, while it is development that has in many ways become more difficult to define. In addition, the challenges of both sustainability and development are more difficult than understood at the time of Bruntland because of several interrelated phenomena. First, science has better documented ecological destruction (e.g., the likely impacts of climate change, burgeoning losses of biodioversity) and it is greater than foreseen. Second, Brundtland assumed equity problems could and would be solved by growth while the net growth since Brundtland has largely been accompanied by increased inequity. Third, as we detailed in Section 2, increased economic and thereby ecological interconnectivity, a simultaneous

decrease in the power of national sovereignty, and a general turbulence in global order mean global solutions are both increasingly necessary and increasingly difficult to come by.

As we have argued, a salient way to confront the dynamism and complexity of the current era of global environmental governance is to adopt pluralistic and transdisciplinary approaches (e.g., ecological economics, political ecology, development-as-freedom) to the analysis of sustainability dilemmas. However, analysis of sustainable development is simply not enough. We contend that the radical critique of contemporary human-environment relations inherent within notions of sustainability (visible if one cares to look) needs to be resuscitated and rescued from those proponents of SD who use it to advance a development agenda that is demonstrably unsustainable[12]. Likewise, it needs to be saved from its most vociferous critics who have left little but ashes in the wake of their deconstructions. We thus seek to retrieve the ideals of sustainable development (equity within and across generations, places and social groups; ecological integrity; and human well-being and quality of life) via a reconstructive exercise in which actually existing environmental governance institutions are evaluated and reformed based on their supporting norms[13]. This is both a conceptual and a political goal. Yet so much has been written of SD and sustainability, and–echoing Brundtland–so many innumerable calls for enhanced "political will" to achieve SD aims have been made, what more can possibly be said?

A revitalized SD–built around the pluralistic conception of sustainability research highlighted above– would be attentive to the political, cultural, technological, ecological and economic contexts of the array of local–global human communities, but also cognizant of more abstract and universal notions of justice and equity. It would break down false dichotomies such as those constructed between "first" and "third" worlds. It would also help dissolve the decidedly unhelpful

schisms within the "reformist" and "radical" camps of SD analysis (see Torgerson, 1995), which have contributed to a sense of paralysis and impotence on the part of socially concerned scholars of sustainability. A first step towards realizing these aims, and towards strengthening sustainable development as a social movement, emphasizes the *processes* through which social and political changes occur, and these processes hinge crucially on notions of citizenship, participation and democracy (see Fischer, 2000).

Notions of deliberative democracy (also related to "discursive" and/or "associative" democracy) are crucial to any discussion of SD policies and sustainability politics. Deliberative democracy, as its name suggests, emphasizes the deliberative or discursive aspects of democratic decision-making rather than the institutionalized norms (e.g., electoral systems, branches of government, parliamentary arrangements, bureaucratic functions) that are frequently defined as being the essence of democracy. Numerous authors argue that democratization is a work in constant progress, and that thoughtful exchanges among different members of a society–on broadly equal terms–about the social goals of that society are indeed the essence of any conception of democracy (Dryzek, 2000; Fischer, 2000, 2003; Hajer and Wagenaar, 2003; Torgerson, 1999). But as has been emphasized in the literature of ecological economics, it is not just a matter of sharing and adjusting goals. We each see different aspects of social and environmental reality from different positions in society and through different lenses of expertise (Norgaard, 1994, 2004; O'Hara, 1996). So deliberative democracy can also counter our fragmented understanding of reality and lead to richer collective knowledges.

Deliberative democracy hinges crucially on having forums in which negotiations and discussions take place. One response is the notion of the "green" public sphere (Torgerson, 1999), a reference to the numerous political openings (e.g., public commentary periods, 'citizen science' panels, citizen advisory boards for governance bodies, UN-sponsored global commissions) in the years since Brundtland for discussions of environmental policies among and between states, international organizations, local communities, NGOs of varying orientation, and business representatives. Indeed, one could argue that the emergence of sustainable development as a prominent policy discourse, and its contentious character, has actually promulgat-

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[12] We are not alone in this call. Others also advocate a revival of sustainable development, albeit in a form that may not be as amenable to government co-optation and purely technocratic or utilitarian interpretations (Drummond and Marsden, 1999).

[13] Our basic argument parallels that of Charles Taylor concerning the need to undertake a "work of retrieval" to "identify and articulate the higher ideal" of the ethics of modernity rather than simply critique its more perverse forms of practice (Taylor, 1991, pp. 71–80).

ed the creation of numerous public spaces for debating and practicing environmental politics. As Howarth and Wilson (in press) argue, deliberative processes can play an important role in constructing the values that should guide social and environmental decisions. The ideas and practices associated with deliberative democracy–open discussion, transparency of decision-making, forcing policymakers to be accountable, reasoned and respectful debate–may be idealistic, but they are fundamental to the creation of green public spheres where the multiple ideals of SD can be debated and refined, and where an empowered SD social movement can coalesce.

The argument that the social sciences, and all academic enterprises for that matter, can and should embrace a normative viewpoint should no longer be surprising or even mildly inflammatory. Ecological economists have long demanded that biophysical processes be placed on a par with, or indeed given priority over, economic activities. Similarly, political ecologists call for both interpretation of and participation in the processes that are interwoven through development practices, environmental transformation and social change. Sen's perspective demands a commitment to social justice and social change on the part of those advocating a freedom-focused vision of development, precisely in order to ground the vision in actual livelihood practice. Our intent is to not to provide a specific blueprint for moving analysts and advocates of SD towards a fool-proof set of policies and political strategies to achieve the holy grail of sustainability. Rather, we advance a set of conceptual and normative perspectives that embrace pluralism when approaching sustainable development in all its complexity. These perspectives (ecological economics, political ecology, and freedom-oriented development) have emerged concurrently with post-Brundltland discourses and practices of sustainable development. A movement based on transnational and deliberative democracy represents a crucial way forward in advancing a project of sustainable development that is simultaneously concerned with well-being, equity and ecological integrity. Social scientists engaged in the investigation and practice of sustainability policies and politics–at all levels and scales–must be prepared to wrestle with, mull over and, where appropriate, advocate for such a project in the post-Brundtland world.

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