

Factitious Catastrophe, Global Warming, and Chaos/Complexity Green Criminology/Justice ～ Tug-of-war: environmental ‘injustice’ vs. ‘green social justice’ 1 ～

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1 Introduction

Facing global criticality of environmental crises, human beings and other multiple species are standing on the edge of precipice of subsistence. Protecting the environment from degradation and destruction is one of the critical challenges today because there is a possibility that this situation influences upon survival environment of not only our generation but also generations in the future (Intergovernmental Panel on Climate Change; Beck; Guattari 2008, 1995; Herzogenrath).

Using the concepts of ‘chaos/complexity green criminology/justice,’ a way of overcoming this critical situation will be suggested.

2 Factitious catastrophe

2.1 Fuel, food, and finance

Tracing newspaper reports, we can catch a glimpse of plight that ill effects of global warming are menacing poor people all over the world in particular.

Fuel and food prices are soaring like never before. This worldwide crisis is further compounded by the financial chaos triggered by the subprime loan fiasco in the United States. The leaders of the Group of Eight nations, gathered in Toyako, Hokkaido, for 2008 summit, have voiced alarm at the “three Fs” --- fuel, food and finance --- that pose serious challenge to the global economy. But the leaders have not indicated in their written agreement a specific plan of action to bring the three F’s crisis under control anytime soon (International Herald Tribune-Asahi, July 10, 2008, p.22).

Thirty countries have already seen food riots till 7th July 2008. The ever higher cost

of food could push tens of millions people into abject poverty and starvation. To a large degree, this crisis is man-made --- the result of misguided energy and farm policies. In 2007, the price of corn has risen 70 percent; wheat 55 percent; rice 160 percent. The World Bank estimates that for a group of 41 poor countries the combined shock of rising prices of food, oil and other raw materials over the past 18 months will cost them between 3 and 10 percent of their annual economic output. Some of the causes are out of governments' control. But wrongheaded policies among rich and poor nations are playing a big role. Of those, perhaps the most wrongheaded are the tangle of subsidies, mandates and tariffs to encourage the production of biofuels from crops in the United States and the European Union. According to the World Bank, almost all of the growth in global corn production from 2004 to 2007 was devoted to American ethanol production, pushing up corn and animal feed prices and prompting farmers to switch from other crops to corn (International Herald Tribune-Asahi, July 7, 2008, p.6).

2.2 The poor get hungrier, the rich play self-righteous politics

At the UN food summit meeting in Rome in June 2008, the Bush administration insisted that ethanol is playing a very small role in rising food prices. Brazil, which has an enormous sugar-based ethanol industry, also rejected demands to curb biofuel production. Argentina objected to calls to end export taxes that it and other countries have erected to slow food exports. The U.S. and Europe also rejected suggestions that their farm subsidies should be blamed for depressing agricultural investment in poor countries. According to the UN Food and Agriculture Organization, there are 37 countries in critical need of food assistance. Many need not only food, but also seed and fertilizer to plant this season (International Herald Tribune-Asahi, June 10, 2008, p.6).

'The Bottom Billion' is a term gaining currency in the international aid community. It refers to the 1 billion people at the bottom of the pyramid. They are the poorest of the poor in developing countries living on less than \$1 a day. They constitute one-sixth of the world's population. The ripple effects of skyrocketing oil and food prices are spreading worldwide. Costlier energy and food pose a grave, immediate threat to the survival of the Bottom Billion, who live in farming villages and urban slums in developing countries. Most of the Bottom Billion live in countries that have fallen behind in the wave of economic globalization. The economics of these countries are stagnating, or even deteriorating. Many of the countries at the bottom are in Africa, parts of Asia and Central Asia (International Herald Tribune-Asahi, July 12-13, 2008, p.20).

World Bank President Robert Zoellick has called these multiple economic crises a 'man-made catastrophe.' Likely he was thinking of rush to use grain for biofuels and restrictions on food exports by food-production countries, which have both driven up food prices. Speculative bets on higher oil and food prices are also contributing to the crises. For the world's poorest, though, these crises are no different from a natural disaster. NGOs and researchers, who view the crises as consequences of 'casino capitalism,' called for restrictions on speculative investments and a ban on producing biofuels with grains. But these ideas got no serious response at the Group of Eight summit in Toyako, Hokkaido, in

July 2008. Rising food and oil prices are causing more and more people to join the ranks of the poor and needy. Deepening anger and resentment among people at the bottom of society could threaten stability in developing countries (International Herald Tribune-Asahi, July 12-13, 2008, p.20).

3 Overcoming global warming and its unequally distributed ill effects

3.1 Global warming threatens poor people

According to reports of International Herald Tribune, in some African nations, commerce and light industry are beginning to take off. There is no doubt that economic globalization has spurred the skyrocketing of natural resources prices and injected much vigor to the economy. The problem, however, is that Africa's troubles have not gone away. In fact, they have grown worse in certain aspects. In Sub-Saharan Africa, four out of every 10 people live on less than one dollar a day. One in every six children born doesn't make it to the age of 5. Among the adult population, average life expectancy is 50 years. More than 60 percent of people infected AIDS virus around the world are concentrated in Sub-Saharan Africa. The new demon has appeared in the form of soaring food prices -- one of the ultimate consequences of economic globalization. Steep food prices are literally a matter of life and death for the poor. In countries such as Senegal, Sierra Leone and South Africa, hunger has turned ordinary citizens into rioting mobs. Supplies of relief food for displaced people have run out, and starvation has become a real possibility (International Herald Tribune-Asahi, May 26, 2008, p.26).

But the great threat is global warming. The vast Sahara Desert is encroaching slowly but steadily into cropland, and the snow atop the majestic Mount Kilimanjaro is melting. One-third of Sub-Saharan Africans live in drought-prone areas. The effects of global warming are serious indeed because food production relies more than 90 percent on rainwater. Developed countries can combat these problems by putting in irrigation systems or importing grain when harvests are poor. But for these African people, even a slight change in climate can spell the collapse of the foundations on which their daily existence rests (International Herald Tribune-Asahi, May 26, 2008, p.26).

3.2 Fight against global warming and its unequally distributed ill effects

During the symposium on environmental problems in mid-June 2008, Former British Foreign Secretary Margaret Beckett said that since the beginning of human history, wars have been fought repeatedly over limited resources like land, water, food and fuels. But we are now in an unprecedented situation in which almost every area on the Earth is under such pressure concurrently, she argued. Sea levels rise, farmland decreases. The world map of epidemics of infectious diseases changes. All of these potential problems are believed to be among the evil effects of global warming. These disastrous changes could trigger massive population migrations, generating new refugee crises and regional conflicts. Effective efforts to stem global warming are indispensable to prevent such destabilization. What the world needs to do now is to take a big step toward eliminating root cause of all these nagging

problems (International Herald Tribune-Asahi, July 1, 2008, p.22).

There are many losers in our brave new world of costly gas and pricey foodstuffs --- the poor almost everywhere, the lower-middle classes, the airline industry, food-importing societies, etc. And now one further casualty is emerging. It is the environmentalist dream of achieving a more suitable, balanced and equitable global society. That vision of harmonious Earth finds itself under threat from all sides. We have not talked in detail about the growing possibilities of political and social turmoil as a consequence of costlier fuel and pricier food --- something about which the World Bank and the World Food Organization has been warning and which at last the G-8 nations have placed high on their agendas. These two relatively new trends are likely to erode even further many of the gains and assumptions held by the environmentalist movement. Intensified oil drilling, the return to nuclear power, the pressures upon forests, the favoring of corn-based ethanol, the increased possibility of a turn to genetically modified farming, and the boost to First World agricultural protectionism --- all of this must make for glum reading. The unpleasant truth nowadays is that things are getting tougher, rather than better, for the advocates of a cleaner, gentler planet (International Herald Tribune-Asahi, July 12-13, 2008, p.4).

A new report by the British government cast fresh doubt on fuels made from crops as a way to the fight climate change. Until recently, European governments had sought to lead the rest of the world in the use of biofuels, aiming to derive 10 percent of Europe's transportation fuels from biofuels by 2020. But the allure has dimmed amid growing evidence that the kind of the targets proposed by the European Union are contributing to deforestation, which speeds climate change, and helping force up food prices. Studies have shown that, over the last 18 months, the current generation of biofuels reliant on food crops like canola, corn and soybeans --- helps drive up food prices by using agricultural land, as well as aggravating deforestation, and may be worse for the climate than conventional oil once the cost of production and transport are taken into account. Most of the world's biofuel is extracted from corn in the United States, sugar in Brazil, and both grain and oilseed crops in Europe. Europe's reversal on biofuels had gained significant momentum in recent days. Over the weekend, energy ministers gave one of their strongest signs that EU governments were prepared to back away from the 10 percent target. Ruth Kelly, the British transport minister, said the introduction of biofuels should be slowed down, citing a newly released report warning that current targets for biofuel production could cause a global rise in greenhouse gas emissions and an increase in poverty in the poorest countries (International Herald Tribune-Asahi, July 9, 2008, p.12).

4 Green criminology and environmental justice

4.1 Green criminology and environmental issues

According to Rob White, a distinctive, critical 'green criminology' has emerged in recent years, a criminology that takes as its focus issues relating to the environment and social harm. Much of this work has been directed at exposing different instances of substantive environmental injustice and ecological injustice. It has also involved critique of the actions

of nation-states and transnational capital for fostering particular types of harm, and failing to adequately address or regulate harmful activity. Drawing upon a wide range of ideas and empirical materials, recent work dealing with environmental issues has ventured across many different areas of concern:

- it has documented the existence of law-breaking with respect to pollution, disposal of toxic waste and misuse of environmental resources;

- it has raised questions relating to the destruction specific environments and resources, in ways which are 'legal' but ecologically very harmful to plants, animals and humans;

- it has challenged corporate definitions of good environmental practice and emphasized the claims of non-human nature to ecological justice;

- it has emphasized the dynamic links between distribution of environmental 'risk' and distinct communities, and particularly how poor and minority populations experience disproportionate exposure to environmental harm;

- it has investigated the specific place of animals in relation to issues of 'rights' and human-non-human relationships on a shared planet;

- it has criticized the inadequacies of environmental regulation in both philosophical and practical terms;

- it has exposed corporate attempts to stifle environmental critique and dissent through the use of public relations propaganda and strategic lawsuits against public participation;

- it has reconsidered the nature of victimization in relation to environmental changes and events, including social and governmental responses to this victimization;

- it has explored the ways in which law enforcement officials --- particularly the police but also including environmental protection authorities --- have intervened with regard to regulation of fisheries, prosecution of polluters and conservation of specific environs and species (White 2007, pp.33-34, 2008, 2005; Beirne and South; South and Beirne; Lynch and Stretsky; Carrabine et al.; Halsey 2004, 2006; Takemura 2007b; United Nations Interregional Crime Research Institute).

4.2 Differential victimization and environmental justice

He explains that criminological analysis of environmental issues proceeds on the basis that someone or something is indeed being harmed. Environmental justice refers to the distribution of environments among people in terms of access to and use of specific natural resources in defined geographical areas, and the impacts of particular social practices and environmental hazards on specific populations (e.g. as defined on the basis of class, occupation, gender, age, and ethnicity). In other words, the concern is with humans as the centre of analysis. The focus of analysis therefore is on human health and well-being and how these are affected by particular types of production and consumption. Here we can distinguish between environmental issues that affect everyone, and those that disproportionately affect specific individuals and groups. In some instances, there may be a basic 'equality of victims', in that some environmental problems threaten everyone in the same way, as in the case for example of ozone depletion, global warming, air pollution and acid rain (White 2007, p.37).

Concerning a victimization, he mentions that as extensive work on specific incidents

and patterns of victimization demonstrates, however, it is also the case that some people are more likely to be disadvantaged by environmental problems than others. For instance, American studies have identified disparities involving many different types of environmental hazards that adversely affect people of color throughout the United States. Other work in Canada and Australia has focused on the struggles of indigenous people to either prevent the environmental degradation of their lands, or to institute their own methods of environmental protection. The specificity of those placed at greater or disproportionate risk from environmental harm is reflected in literature that acknowledges the importance of class, occupation, gender, and more recently, age, in the construction of special environmental interest groups. There are thus patterns of 'differential victimization' that are evident with respect to the siting of toxic waste dumps, extreme air pollution, access to safe, clean drinking water and so on (White 2007, p.37; Williams).

Moreover, he mentions another dimension of differential victimization which relates to the subjective disposition and consciousness of the people involved. The specific groups who experience environmental problems may not always describe or see the issues in strictly environmental terms. This may be related to knowledge of the environmental harm, explanations for calamity and socio-economic pressures to 'accept' environmental risk. The environmental justice discourse challenges the dominant discourses by placing inequalities in the distribution of environmental quality at the top of the environmental agenda (White 2007, pp.37-38).

5 Struggle for 'green social justice'

5.1 What is social justice?

Loretta Capeheart and Dragan Milovanovic argue that common conception of criminal justice, which accept a politically established definition of crime for a most part, are too limited. Instead, they show the relevancy of history, political economy, culture, critique, and cross-cultural engagement to the advancement of justice. They question the limits of the law in its present state in order to develop a fairer system at the local, national, and global levels.

They explain that social justice is concerned not in the narrow focus of what is just for the individual alone, but what is just for the social whole. Given the current global condition, social justice must include an understanding of the interactions within and between a multitude of peoples. This is indeed a complex and inclusive pursuit. It is also an exciting and worthy pursuit. It requires the consideration of and sensitivity to all voices and all concerns. A challenging task before us is developing a process by which historically emergent principles of justice may find areas for their discussion, resolution, and implementation in a changing historical order, especially the new global order, with a simultaneous sensitivity to difference and commonality and subsequent practices that carry through what has been implemented without disenfranchising persons and/or groups (Capeheart and Milovanovic 2007, p.2).

Concerning environmental justice, they say that a considerable amount of literature is beginning to develop around the idea of sustainable development. Increasingly it has become

clear that to talk of environmental justice is also to talk about social justice — that is, issues of fairness and quality of life are interconnected. Middleton and O'Keefe have said "sustainability can mean nothing unless development is socially just". Perhaps the clearest definition of a just sustainable development is to ensure a better quality of life for all, now, and into the future, in a just and equitable manner, while living within the limits of supporting ecosystems. In this direction, there has been some movement in advocating environmental rights. The just sustainability paradigm is especially concerned with the disproportional impact on the poor. They are at great risk of experiencing environmental bads. Thus, for example, there is outright environmental racism, or 'eco-apartheid' (Capeheart and Milovanovic 2007, p.95-96; Watkins et al.).

5.2 Postmodern form of justice

According to their examination, postmodern thought begins with a rejection of many of the core assumptions and ideologies developed during the Enlightenment period. It questions the privileging of great narratives, the notion of the individual, a dominant and universal Truth, linear logic and reasoning, possibilities of universal and stable foundations, and the neutrality of language. It suggests maintaining a skeptical eye toward the possibility of developing conceptions of justice that are grounded in self-evident truth claims founded in prevailing and dominant ideologies. The possibilities of a bona fide conception of postmodern justice, however, are only recently emerging (Capeheart and Milovanovic 2007, p.125; Rosenau).

They proceed to a consideration of postmodern Marxists and contemporary integration. Antonio Negri (neo-Marxist) and Michael Hardt (postmodern) have coauthored two influential books, *Empire* (2000) and *Multitude* (2004), which are inspired by Deleuzian concepts and stand, in many theorists' eyes, as the present-day counterpart to Marx's Communist Manifesto. In their view, justice cannot be refined in law but must ultimately find its expression in the social. Bringing a Marxist and a postmodern view to their critique of Rawls's distributive justice principle, they review criticism that John Rawls's principles of justice neglect the sphere of production and prioritize the sphere of distribution and circulation. In so doing, the sources of justice are mystified. Hardt and Negri's more recent writings hold much promise for the new global proletariat, the multitude, which will articulate new insights on justice based on global struggle. A multitude is composed of diverse people, each in their nuanced ways of being and becoming, which can never be reduced to an abstraction such as the juridic subject, or the people, or the working class. It is only within the multitude that a common position can emerge, that society can be formed. Foundational principles of justice can only be found in the processes inherent in the movement of the multitude (Capeheart and Milovanovic 2007, pp.138-139).

Additionally they mention a constitutive perspective of justice. Henry and Milovanovic have developed a constitutive perspective in law and justice studies. Justice principles can be derived from their notion of harm. That is, if we reject the legalist definition of crime and substitute the notions of harms of repression and reduction, we can also look at its reverse to discover principles of justice based on concern for the other and specify an active role in enhancing the other's well-being; rather than repression and reduction, we have enhancement

and care for the other. By defining justice in terms of concern with otherness, as in Derrida and Lyotard, and incorporating the ethics of care, overall justice is enhanced (Capeheart and Milovanovic 2007, p.139; Henry and Milovanovic 1996, 1999).

They summarize that postmodern forms of justice allow for a broader understanding of what justice may and may not entail. These ideas grow specifically from a rejection of previous modernist assumptions and ask that new understandings be allowed to emerge and develop. Postmodern ideas continue to develop, to question our understandings of justice, and to provide a challenge for further progress in ideas. Postmodern thought informs a further understanding of justice (Capeheart and Milovanovic 2007, p.202; Boehr; Brodeur).

5.3 Postmodern justice based on chaos/complexity theory

Capeheart and Milovanovic develop the postmodern justice based on chaos/complexity theory. They mention that several approaches have recently employed dynamic systems theory (chaos theory) to developing notions of justice. Robert Schehr integrates chaos theory in the development of a nonlinear perspective on social movement theory and justice. Principles of justice will emerge from far-from-equilibrium conditions (dynamic conditions) in the form of dissipative structures that are open ended and highly sensitive to individual input (Capeheart and Milovanovic 2007, p.139; Bertuglia et al.; Byrne; Eve et al.; Kiel et al.).

They continue that Schehr has developed a forth model of social movements that relies on dynamic system theory (chaos theory) and builds on its predecessor, the new social movement paradigm. Schehr places priority on subaltern modes of resistance, explaining how otherwise silenced voices redefine oppressive practice, even seemingly small. These inputs, consistent with chaos theory, have disproportional effects on social systems (the butterfly effects). His conceptual framework borrows heavily from the concepts of dynamic systems theory. In late capitalism there cannot be long-term homogenous opposition groupings but instead a 'plurality of antagonism'. That is, conflicts cut across class, gender, race, and other issues. There are provisional organizations and alliances organized around particular issues. Among other concepts assimilated from chaos theory, Schehr uses the idea of nonlinearity, disproportional effects, attractors, and dissipative structures (Capeheart and Milovanovic 2007, p.176).

In short, the forth way in social movement research suggests the development of more spontaneous notions of justice in context. It is a call for 'nonlinear justice systems'. Concepts of justice are emergents arising in far-from-equilibrium conditions. It is recognition of flux, uncertainty, change, becoming, multiplicity, indeterminacy, instabilities, discovery and surprise. These emerging principles of justice have compatibilities with what Judith Butler theorized as contingent universalities as a basis of generating political agendas for social change and for social justice. Notions of social justice -- reflecting various articulations of need, desert, and equality -- will always be in flux, always subject to reflection, augmentation, qualification, specification, deletion, and even replacement with a more responsive concept of social justice in context. They are ever contingent. There is no grand narrative that can encompass all of their nuances. There is no on justice that will incorporate all the dimensions of struggle, becoming, and the development of a good society (Capeheart and Milovanovic

2007, p.177; Young 1998, 1997a, 1997b; Williams and Arrigo; Milovanovic 1997a, 2003, 1997b; Williams III; Takemura 2007b).

6 Conclusions

Environmental crimes have been exerting a tremendous harmful influence on the globe and our viabilities. Especially, this harmful influence is unequally and unfairly distributed between developing countries and industrialized countries. Some measures which are of benefit to people living in industrialized rich countries may inflict a loss to people living in developing poor countries.

According to Loretta Capeheart and Dragan Milovanovic, environmental and ecological justice is at once a small part of and an inclusive example of our need to seek justice on a global scale and within our local settings. Environmental and ecological damages are universal in their scope and local in their effect. While we seek environmental and ecological justice within our communities, we necessarily seek the same for the planet (Capeheart and Milovanovic 2007, p.201; Taylor; Levin).

Chaos/complexity green criminology suggests that multiple concepts and movements of 'social justice' may overcome global criticality of environmental crises (Takemura forthcoming).

Note:

- 1) This article is based on the paper titled 'Global Criticality of Environmental Crimes and Chaos/Complexity Green Criminology: from environmental justice to social justice' and presented at the XV World Congress of International Society for Criminology, Barcelona, Spain, 20-25 July 2008.

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