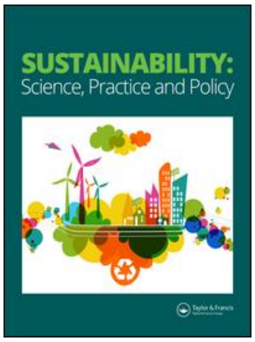
1-1-2010

Individual Consumption and Systemic Societal Transformation: Introduction to the Special Issue

Maurie J. Cohen
New Jersey Institute of Technology

Halina Szejnwald Brown
Clark University

Philip J. Vergragt
Tellus Institute



Sustainability: Science, Practice and Policy

ISSN: (Print) 1548-7733 (Online) Journal homepage: https://www.tandfonline.com/loi/tsus20

Individual consumption and systemic societal transformation: introduction to the special issue

Maurie J. Cohen, Halina Szejnwald Brown & Philip J. Vergragt

INTRODUCTION

Individual consumption and systemic societal transformation: introduction to the special issue

Maurie J. Cohen[1], Halina Szejnwald Brown[2], & Philip J. Vergragt[3,4]

[1]Graduate Program in Environmental Policy Studies, New Jersey Institute of Technology, University Heights, Newark, NJ 07102 USA (email: mcohen@adm.njit.edu)

[2]Department of International Development, Community, and Environment, Clark University, 950 Main Street, Worcester, MA 01610 USA (email: hbrown@clarku.edu)

[3]Tellus Institute, 11 Arlington Street, Boston, MA 02116 USA (email: pvergragt@tellus.org)

[4]Marsh Institute, Clark University, 950 Main Street, Worcester, MA 01610 USA (email: pvergragt@clarku.edu)

The social and environmental problems engendered by contemporary consumer lifestyles first received explicit international acknowledgement at the 1992 Earth Summit in Rio de Janeiro. Chapter Four of Agenda 21 from this event declared that "the major cause of the continued deterioration of the global environment is the unsustainable pattern of consumption and production, particularly in industrialized countries, which is a matter of grave concern, aggravating poverty and imbalances" (United Nations, 1992).[1] This particular framing of the root causes of the societal and ecological challenges confronting the world, not surprisingly, triggered a vigorous rebuttal in countries deemed to be most directly responsible, even prompting the first President Bush to proclaim that "the American way of life [was] not up for negotiation" (McKibben, 2005; see also Cohen, 2010).

Nonetheless, during the subsequent two decades, public recognition of the profound toll exacted by the heavy demands of affluent consumers in both developed and developing countries has widened and deepened (Myers & Kent, 2004; Chakravarty et al. 2009; Rockström et al. 2009; Assadourian, 2010). Numerous strategies have emerged to encourage the "greening" of consumer practices through, for example, the remanufacture of obsolete goods, the ecological design of products, and the introduction of multifold varieties of ostensibly "ecofriendly" merchandise (for recent reviews see Goleman, 2009; Leonard, 2010). Life-cycle analysis, input-output analysis, material-flow analysis, and related techniques have made important contributions to these efforts.[2] In Europe and elsewhere, governments and supranational organizations have drawn on these insights to steer consumers toward preferable options, using ecolabeling schemes and public education campaigns (Boström & Klintman, 2008; Nash, 2009; Scholl et al. 2010). A few rare instances have entailed suppression of demand through taxation and prohibitions.

These developments are commendable, but they amount to little more than token gestures relative to the 90–95% reductions in greenhouse-gas emissions required to achieve global targets over the next few decades (Bennett & Collins, 2009; Berg, 2010). While these initiatives provide concerned individuals with potentially helpful ways to take action, they do not confront consumer culture and incessant political pressure for consumption-driven economic growth (Allen & Kovach, 2000; Muldoon, 2006; Autio et al. 2009; see also Luke, 2005; Princen, 2005). The main drivers of overconsumption in wealthy countries–housing policies that incentivize large-home construction, transportation policies that promote suburban sprawl, agricultural policies that encourage unhealthful diets, energy policies that induce profligate resource use, and financial policies that stimulate permissive money management–remain outside the reach of what is generally regarded as "green consumption."[3] Furthermore, the gains from energy and

[1]It merits recalling that consumption was a key theme of the 1972 Stockholm Conference on the Human Environment, but the problems it posed were not explicitly conveyed in any of the event's final communications. Instead, population growth in developing countries continued to serve as the pivotal concern in international discussions on biophysical carrying capacity throughout the 1970s and 1980s. In the United States, former President Jimmy Carter infamously tried to initiate a public discussion on the ill-effects of consumption, but his efforts did not have the intended effect on public policy (Mattson, 2009).

[2]See Tukker et al. (2010) and the articles comprising the associated issue of the *Journal of Industrial Ecology* for a recent overview of this work.

[3]An interesting development that is emerging in the United States as this article is being published is that the National Commission on Fiscal Responsibility and Reform is controversially proposing elimination of the lucrative mortgage-interest tax deduction, a provision that has long been recognized as a public subsidy that

materials efficiency are significantly dampened by rebound effects in the form of increased use or reallocation of monetary savings to other activities (Binswanger, 2001; Hertwich, 2005; Herring & Roy, 2007; Polimeni et al. 2008; Hanley et al. 2009; Herring et al. 2009).

In response to these circumstances, debates on sustainable consumption have recently begun to move in several new directions. Some scholars are examining the macroeconomic and political-economic context of consumption (Schor, 2005; Victor, 2008; Jackson, 2009; Cohen, 2010; Harris, 2010), the distribution of globally equitable allowances to emit greenhouse gases (McMichael et al. 2007; see also Meyer, 2000), and the notion of "degrowth" (Latouche, 2010; van Griethuysen, 2010). Other researchers are considering the prospects of transitions toward sociotechnical regimes that could enable more sustainable modes of consumption (Chappells, 2008; Rohracher, 2008), the role of bounded sociotechnical experiments (Vergragt & Brown, 2007; Brown & Vergragt, 2008), and studies of social practices (Evans & Abrahamse, 2009; Røpke, 2009; Gram-Hanssen, 2010). The recent emergence of the "new economics" as a visible field is evidence that many of these threads are being woven together into a coherent paradigm (Boyle & Simms, 2009; Schor, 2010; Speth, 2010).[4] Notably, this research is beginning to fuse with a range of social movement activity organized around localism, alternative food systems, postautomobile transportation systems, and community responses to peak oil (e.g., Hopkins, 2008; Hess, 2009; Dennis & Urry, 2009; Follett, 2009).

It is in this intellectual space that the Sustainable Consumption Research and Action Initiative (SCORAI) is situated. A knowledge network comprising both academics and practitioners, SCORAI is the organizational nexus for work that addresses challenges at the interface of material consumption, human fulfillment, lifestyle satisfaction, and macroeconomic and technological change. This collaboration began in 2008 as a modest initiative of the Boston-based Tellus Institute to bring together like-minded individuals from the surrounding area for monthly discussions.[5] These meetings gathered momentum and members of a small founders group formalized the network's institutional dimensions and organized an inaugural workshop in October, 2009 at Clark University in Worcester, Massachusetts. Approximately three-dozen researchers from the United States and Canada attended this gathering with the theme of "Individual Consumption and Systemic Societal Transformation."[6] This special issue of *Sustainability: Science, Practice, & Policy* contains several papers that were originally presented in draft form at this conference.

Lending the workshop a sense of urgency was that much of the world was (and is) still reeling from the collapse of major American and international financial institutions and the ensuing economic dislocations. Among other revelations, these events clearly exposed the connections between the global financial system and the global climate system: the endangerment of both systems could be attributed to doctrinaire allegiance to neoliberal economics and unquestioned pursuit of economic growth.[7] Transformation toward an alternative paradigm will entail a new understanding of human well-being, one that is sustainable, equitable, and capable of fulfilling individual and societal aspirations for a "good and ethical life." Given the intimate connections between material standards of living and generally regarded notions of human satisfaction, consideration of alternative economic systems is inseparable from debates on sustainable consumption and technological change.

This first SCORAI workshop furthermore acknowledged that, in comparison to developments elsewhere, organized scholarly and policy debates about sustainable consumption were seriously lagging in North America. During the early- and mid-2000s, Europe saw a veritable explosion of activity

contributes to the upscaling of home size, encourages low-density residential patterns, and compounds socioeconomic and geographic inequalities (Calmes, 2010; cf. Krugman, 2010a; see also Landis & McClure, 2010). Emergent political discussions on the imposition of a national consumption tax, as well as an increase in the federal excise tax on gasoline, further highlight that some of these issues are beginning to attract serious attention (Mankiw, 2010; see also Seidman, 1997). The establishment of the Consumer Financial Protection Bureau is another example of an effort to engage with the drivers of overconsumption.

[4]See also the New Economics Foundation (http://www.neweconomics.org) and the New Economics Institute (http://neweconomicsinstitute.org).

[5]An important source of inspiration for the establishment of SCORAI was a prior European project called SCORE! (Sustainable Consumption Research Exchanges).

[6]Financial support for the inaugural SCORAI workshop was provided by the ProQuest/U.S. Geological Survey Partnership, the Tellus Institute, and the following Clark University administrative units (Provost's Office; Department of International Development, Community, and Environment; Graduate School of Geography; and Graduate School of Management). A comprehensive list of workshop contributions is available at http://www.scorai.org/participants09.html.

[7]Though authors demonstrate different postures with respect to the contemporary economic growth paradigm, a body of literature is developing on the common foundations of the financial and climate crises. See, in particular, de Zoysa & Newman, 2009; Foster & Magdoff, 2009; Hemerijck et al. 2009; Jackson, 2009; Kallis et al. 2009; Leichenko et al. 2010; Liu & Raven, 2010; Naughten, 2010; and Sampford, 2010.

on this front, marked by a steady stream of publicly funded projects, conferences, journal articles, and books in conjunction with robust interest on the part of policy makers who issued several national and multinational sustainable consumption plans (e.g., CEC, 2008; Nash, 2009; Scholl et al. 2010). It seemed as if hardly a week went by without a significant event on the issue in Brussels, London, Paris, or Berlin. While sustainable consumption did not attract the same kinds of formal attention in Asia, the topic did gain traction during this period among civil society organizations throughout the region (Hobson, 2004; de Zoysa, 2007; Zhao & Schroeder, 2010).[8] In contrast, in North America (and especially in the United States), limitless household consumption continued to be regarded with little exception as an altogether beneficial societal objective. Skeptics were marginalized and taunted for threatening to kill the goose that laid the golden eggs. Calls to move household consumption in more sustainable directions were derided as softheaded and typically dismissed out of hand.[9]

What a difference two years makes. Between the formulation of plans to convene the first SCORAI workshop and the appearance of this special issue we have witnessed a sea change in public sensibilities and the policy landscape. There is growing recognition among observers across the political spectrum that lifestyles based on boundless consumer credit, status-fueled consumerism, and rampant advertising have fallen into disrepute. Exhortations to return to "the way things used to be" are losing their fervor. In the United States and parts of Europe realization is dawning that we may be facing a protracted future of no-growth and enforced austerity and Japan's so-called "lost decade" is looming as the likely fate of several affluent countries (Goodman, 2009; Kang & Syed, 2009; Tabuchi, 2009; Krugman, 2010b). Commentators once derided as heretics and naysayers are now prominently featured on the pages of the international business press. The time is becoming ripe for new ideas.

The inaugural SCORAI workshop focused on both the socioeconomic and sociocultural dimensions of sustainable consumption. Attendees included sociologists, anthropologists, political scientists, geographers, ecological economists, environmental social scientists, industrial ecologists, urban planners, marketing and management specialists, and scholars from the fields of science and technology studies and technology innovation studies. The workshop also included representatives from a variety of policy communities in the United States and Canada. The conference aimed to create connections across disparate disciplines, to formulate a North American research program around consumption and well-being, and to contribute to the ongoing policy dialogue around these issues. In sum, the twenty papers presented at the workshop addressed the following questions:

- What do studies of consumers' responses to policy instruments and other interventions teach us about designing policies? What does this work tell us about active resistance to changing dominant consumption practices?
- Can new lifestyle choices emerge around the pursuit of well-being, leisure, or fun?
- What can the "make do" practices of the poor teach us about the nonmaterial means of pursuing well-being?
- If we are biologically predisposed to appropriate all available resources, what are the cultural framings/metaphors that institutionalize these behaviors?
- How does institutional change occur, especially with regard to habituated and entrenched social practices?
- While hopeful "change the light bulb" consumer behaviors seem to be gaining ground, they remain socially marginal and ecologically insignificant. How can these efforts be usefully scaled up?
- Is a new social movement required to affect lifestyle choices and/or to spur systemic change? Do many small initiatives facilitate or undermine social mobilization?
- Most lifestyle choices are not conscious in relation to big ideas such as sustainability. Is it necessary to raise that consciousness? Alternatively, is a more strategic response required to focus activist energy on systemic changes in the institutional-political-economic realm?
- Can professional elites become agents of change, or do they inevitably fall into the trap of incrementalism? What should be the role of nongovernmental organizations (NGOs)? Do NGOs need to redefine their traditional role of principally lobbying for government policies?
- Is a "leisure-time transition" through workweek reduction necessary to create a steady-state

[8]See, for example, the Asia-Pacific Roundtable on Sustainable Consumption and Production (http://www.aprscp.net).

[9]The relatively low level of interest in sustainable consumption in Canada and the United States has been especially evident at the governmental level. For instance, the region was the last of five zonal groupings (Africa, Asia-Pacific, Europe, Latin America-Caribbean, North America, and West Asia) to convene an experts meeting under the auspices of the Marrakech Process (see Government of Canada et al. 2009).

economy? What is the feasibility of such developments?

One of the workshop's most important and tangible achievements to date has been the creation of a thriving network that spans a wide range of traditional academic disciplines and comprises scholars and practitioners who have come to identify themselves with the challenges of sustainable consumption.[10] Members of this group further find that their work is powerfully enriched by interaction with policy makers and activists engaged on these issues in the field. A central goal of SCORAI is to further grow this network by launching new research projects, evolving the group's electronic platforms for internal debate and outward communication, and periodically organizing intense multiday workshops on cutting-edge ideas.

The core of this special issue comprises five contributions (four articles and one Community Essay) that were initially presented at the inaugural SCORAI workshop. The authors revised their work on the basis of extensive feedback at the event itself and in response to evaluations prepared by peer reviewers. We are grateful to the dedication of the contributors and extend special thanks to all of the participants and referees for their insights and candor. The special issue also includes an introductory editorial by Erik Assadourian and nine book reviews of recently published titles that we hope will be of additional interest to readers.

In the first article, William Rees reflects on the international community's feeble political response to the progressively more ominous prognosis for the global climate. Is it not, he asks, an indication of an irrational mindset for the public to disregard the warnings conveyed by these scientific appraisals? Rees seeks clues for this apparent disconnect in contemporary research on evolutionary biology and human cognition. He observes that human beings are, in ecological terms, quintessential K-strategists (i.e., large bodied, relatively long living), with a propensity to relentlessly appropriate all available carrying capacity. In the absence of any biophysical checks, human communities will inexorably perpetuate their own survival and reproductive success. This evolutionary predisposition is reinforced by various sociocultural constructs such as the commitment to economic growth. We seem, Rees argues, to be captive to our own biologically determined survival tactics.

David Hess next considers the challenge of sustainable consumption from the standpoint of household resilience. Human ecologists, sustainability scientists, and others over the past two decades have expanded our understanding of the role of resilience in buffering disturbances. Hess applies this general framework to examine the relationship between household resilience and sustainable consumption. He identifies two types of resilience: economic and material. Strategies to improve economic resilience can take the form of diversifying revenue streams and increasing household-level economic storage through savings, insurance, and education. Material resilience is pursued by investing in supplementary physical systems like back-up generators, space heaters, and other emergency equipment. These tactics can enhance or undermine sustainable consumption patterns. Hess presents expenditure data from two actual households: a single-individual household living under relatively modest circumstances and a relatively affluent household with two adults and two children. These case studies shed light on which purchase decisions consistently integrate resilience and sustainability and which put the two goals in conflict. The study shows how research and policy making on sustainable consumption can usefully be embedded in household financial management. Hess's approach arguably has greater utility for ordinary consumers than more abstract metrics like kilowatt hours, ecological footprints, and carbon-dioxide equivalents.

Richard Wilk draws on the work of linguist George Lakoff to argue that our view of the world is organized and structured through different metaphorical lenses that vary geographically, culturally, socioeconomically, and in other ways. Moreover, folk understandings typically deviate from expert appraisals. Wilk argues that consumption is generally interpreted in common parlance through metaphors like fire, eating, hunting, and gathering. The problem with this treatment is that we fail to distinguish between forms of consumption that are socially and environmentally deleterious (automobile driving) and others that are rather benign (collecting antique cars). In addition, seemingly nonconsumption activities–sports, political events, and investing–can involve appropriation of vast resources and engender considerable fluidity between "needs" and "wants." Wilk suggests that a more effective metaphor for stimulating sustainable consumption would be a see-saw, as it evokes an inherent need to morally balance virtuous and errant consumer activities, though it is important to recognize that such lay accounting systems are unlikely to correspond to scientific assessments. He concludes by noting that contemporary knowledge of folk models of consumption is at a very early stage of development, but is a fruitful area for inquiry.

John Stutz draws on economic historian Angus Maddison's dataset stretching back two millennia to demonstrate that the post-World War II period of "explosive growth" among the world's affluent

[10] See http://www.scorai.org.

countries was accompanied by a growing "spread" between relatively affluent and poor nations. At the same time, incomes are now increasing in several developing countries, giving rise to new consumer societies. Improvements in technological efficiency–even if such strategies were to be pursued vigorously–will not offset the resultant growth in energy and resource consumption. Stutz posits the need for an income transition (analogous to the familiar demographic transition) predicated on a shift from material affluence to well-being. He then discusses how well-being could be enhanced through a reduction in working hours that would enable people in wealthy countries to pursue more personally satisfying activities. Reductions in income would slow the rate of economic growth in these nations and attenuate their energy and resource consumption while creating opportunities to achieve a more globally equitable income distribution. Stutz describes efforts to lower the intensity of environmental impact per unit of economic activity, to reduce the pace of growth in output, and to promote an income transition as constituting a "three-front war."

The final core contribution to this special issue is a Community Essay by Tom Princen. Echoing some of Wilk's themes, the commentary highlights the central role of metaphors for talking about both sustainability and sustainable consumption. Princen observes that if we are going to successfully embark on a more socially and ecologically sustainable path, it will be necessary to construct a new set of metaphors that reshape how we think. He describes how prevailing understanding of human-environment relations is conceptualized as threats that need to be tamed and that survival is dependent on continuous expansion. Princen argues that we need to set aside these dominant metaphors that regard the environment as a laboratory, storehouse, or battlefield. In their place, it is necessary to identify and nurture new, more effective and constrained lenses that are based, for example, on the notion of a watershed, neighborhood, or spaceship. He proposes that we need not discard completely the growth metaphor, but we need to frame growth as a process of maturation and improvement, rather than limitless extension and enlargement.

At the time this special issue is being published (November 2010), SCORAI is actively involved in planning its second workshop, due to be held in April 2011. As noted above, debates about the efficacy of economic growth have gained new visibility in countries of the global North over the past year, and different approaches for pursuing personal and societal well-being have become part of research and policy agendas. One way to organize this broad range of activity is through a tripartite framework consisting of the search for alternatives to consumerism and individualism as social organizing principles, the design of economic models less reliant on consumer spending and personal debt, and the pursuit of more equitable distributions of income and work (to enable tradeoffs of goods consumption for leisure time and community engagement). This view simultaneously recognizes that developing countries need economic and consumption growth, but these goals should be mediated by "green" technology and other sustainable practices. Momentum on these issues is likely to build during preparations for the 2012 United Nations Conference on Sustainable Development (Rio+20) and as the problems inherent in the prevailing economic growth paradigm come into sharper focus.

Within this framework, this workshop aims to highlight the interstices among three important research approaches on sustainable consumption. First, work on *sociotechnical transitions* emphasizes technological innovation and diffusion and the coevolution of technologies, societal institutions, and culture, but is relatively silent on economic and political contexts and the nature of technology-human behavior interactions. Second, research on *social practices* centers on the mutual interactions between technology and commonplace daily behaviors and examines how more resource-intensive social practices emerge in response to technological innovations; however, to date scholars have paid less attention to the evolution of new technologies from a complex system perspective or to the economic or political drivers of consumption. Finally, studies in the *political economy of consumption* give prominence to the institutional factors that shape prevailing modes of consumption, but this work in the so-called "new economics" has tended to devote much less attention to the role of technology.

The event seeks to forge intellectual bridges across these perspectives, with the goal of enriching each one through novel framings, new analytic treatments, and development of a shared language. Participants will integrate work from ongoing research in several fields, including innovation studies, sociology of social practices, and ecological macroeconomics. The end result will deepen the current body of knowledge on how consumption patterns evolve in a technological society and expose more clearly the role that policy interventions, grassroots initiatives, small-scale experiments, social movements, and market actors can have in affecting changes consistent with twenty-first century needs.

References

Allen, P. & Kovach, M. 2000. The capitalist composition of organic: the potential of markets in fulfilling the promise of organic agriculture. *Agriculture and Human Values* 17(3):221–232.

Assadourian, E. 2010. The rise and fall of consumer cultures. In *State of the World: Transforming Cultures—From Consumerism to Sustainability*. pp. 3–20. New York: W. W. Norton.

Autio, M., Heiskanen, E., & Heinonen, V. 2009. Narratives of “green” consumers: the antihero, the environmental hero, and the anarchist. *Journal of Consumer Behavior* 8(1):40–53.

Bennett, J. & Collins, D. 2009. The policy implications of sustainable consumption. *Australasian Journal of Environmental Management* 16(1):47–55.

Berg, A. 2010. Not roadmaps but toolboxes: analyzing pioneering national programmes for sustainable consumption and production. *Journal of Consumer Policy* Online First: April 30.

Binswanger, M. 2001. Technological progress and sustainable development: what about the rebound effect? *Ecological Economics* 36(1):119–132.

Boström, M. & Klintman, M. 2008. *Eco-Standards, Product Labelling and Green Consumerism*. New York: Palgrave Macmillan.

Boyle, D. & Simms, A. 2009. *The New Economics: A Bigger Picture*. London: Earthscan.

Brown, H. & Vergragt, P. 2008. Bounded socio-technical experiments as agents of systemic change: the case of a zero energy residential building. *Technological Forecasting and Social Change* 75(1):107–130.

Calmes, J. 2010. Panel seeks cuts in social security and higher taxes. *The New York Times* November 11:A1.

Chakravarty, S. Chikkatur, A., de Coninck, H., Pacala, S., & Socolow, R. 2009. Sharing global CO_2 emission reductions among one billion high emitters. *Proceedings of the National Academy of Sciences* 106(29):11884–11888.

Chappells, H. 2008. Systematically sustainable provision? The premises and promises of “joined-up” energy demand management. *International Journal of Environmental Technology and Management* 9(2–3):259–275.

Cohen. M. 2010. The international political economy of (un)sustainable consumption and the global financial collapse. *Environmental Politics* 19(1):107–126.

Commission of the European Communities (CEC). 2008. *Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions on the Sustainable Consumption and Production and Sustainable Industrial Policy Action Plan*. Brussels: CEC. http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2008:0397:FIN:en:PDF.

de Zoysa, R. & Newman, O. 2009. Crisis and resurgence: redefining the United States and European Union relationship in the face of global challenges. *Twenty-First Century Society* 4(3):297–318.

de Zoysa, U. 2007. *Sustainable Consumption: An Asian Review*. Nugegoda, Sri Lanka: Center for Environment and Development.

Dennis, K. & Urry, J. 2009. *After the Car*. Malden, MA: Polity.

Evans, D. & Abrahamse, W. 2009. Beyond rhetoric: the possibilities of and for “sustainable lifestyles.” *Environmental Politics* 18(4):486–502.

Follett, J. 2009. Choosing a food future: differentiating among alternative food options. *Journal of Agricultural and Environmental Ethics* 22(1):31–51.

Foster, J. & Magdoff, F. 2009. *The Great Financial Crisis: Causes and Consequences*. New York: Monthly Review Press.

Goleman, D. 2009. *Ecological Intelligence: How Knowing the Hidden Impacts of What We Buy Can Change Everything*. New York: Broadway.

Goodman, P. 2009. Failure offers lessons Japan would rather forget. *The New York Times* September 6:WK3.

Government of Canada, Government of the United States, United Nations Environment Programme, and United Nations Department of Economic and Social Affairs. 2009. *North American Multi-Stakeholder Workshop on Sustainable Consumption and Production: Co-Chairs Summary and Workshop Report*. Washington, DC: State Department.

Gram-Hanssen, K. 2010. Standby consumption in households analyzed with a practice theory approach. *Journal of Industrial Ecology* 14(1):150–165.

Hanley, N., McGregor, P., Swales, J., & Turner, K. 2009. Do increases in energy efficiency improve environmental quality and sustainability? *Ecological Economics* 68(3):692–709.

Harris, J. 2010. *The Macroeconomics of Development Without Throughput Growth*. Working Paper No. 10–05. Global Development and Environment Institute, Tufts University. http://ase.tufts.edu/gdae.

Hemerijck, A., B. Knapen, & E. van Doorne (Eds.). 2009. *Aftershocks: Economic Crisis and Institutional Choice*. Amsterdam: Amsterdam University Press.

Herring, H. & Roy, R. 2007. Technological innovation, energy efficient design and the rebound effect. *Technovation* 27(4):194–203.

Herring, H., S. Sorrell, & D. Elliot (Eds.). 2009. *Energy Efficiency and Sustainable Consumption: The Rebound Effect*. Northampton, MA: Edward Elgar.

Hertwich, E. 2005. Consumption and the rebound effect: an industrial ecology perspective. *Journal of Industrial Ecology* 9(1–2):85–98.

Hess, D. 2009. *Localist Movements in a Global Economy*. Cambridge, MA: MIT Press.

Hobson, K. 2004. Researching “sustainable consumption” in Asia-Pacific cities. *Asia Pacific Viewpoint* 45(2):279–288.

Hopkins, R. 2008. *The Transition Handbook: From Oil Dependency to Local Resilience*. White River Junction, VT: Chelsea Green Publishing.

Jackson, T. 2009. *Prosperity Without Growth: Economics for a Finite Planet*. London: Earthscan.

Kallis, G., Martinez-Alier, J., & Norgaard, R. 2009. Paper assets, real debts: an ecological-economic exploration of the global economic crisis. *Critical Perspectives on International Business* 5(1–2):14–25.

Kang, K. & Syed, M. 2009. Overcoming the global financial crisis: some lessons from Japan’s “lost decade.” *CESifo DICE Report* 7(3):13–20.

Krugman, P. 2010a. The hijacked commission. *The New York Times* November 12:A31.

Krugman, P. 2010b. Things could be worse. *The New York Times.* September 9:A29.

Landis, J. & McClure, K. 2010. Rethinking federal housing policy. *Journal of the American Planning Association* 76(3):319–348.

Latouche, S. 2010. *Farewell to Growth*. Malden, MA: Polity.

Leichenko, R., O’Brien, K., Solecki, W. 2010. Climate change and the global financial crisis: a case of double exposure. *Annals of the Association of American Geographers* 100(4):963–972.

Leonard, A. 2010. *The Story of Stuff*. New York: Free Press.

Liu, J. & Raven, P. 2010. China’s environmental challenges and implications for the world. *Critical Reviews in Environmental Science and Technology* 40(9–10):823–851.

Luke, T. 2005. Neither sustainable nor development: reconsidering sustainability in development. *Sustainable Development* 13(4):228–238.

Mankiw. G. 2010. Much to love, and hate, in a VAT. *The New York Times* May 1:B6.

Mattson, K. 2009. *“What the Heck Are You Up to, Mr. President.”* New York: Bloomsbury.

McKibben, B., 2005. Changing the climate. *American Prospect* September 18. http://www.prospect.org/cs/articles?article=changing_the_climate.

McMichael, A., Powles, J., Butler, C., & Uauy, R. 2007. Food, livestock production, energy, climate change, and health. *The Lancet* 370(9594):1253–1263.

Meyer, A. 2000. *Contraction and Convergence: The Global Solution to Climate Change*. Dartington, UK: Green Books.

Muldoon, A. 2006. Where the green is: examining the paradox of environmentally conscious consumption. *Electronic Green Journal* 1:23.

Myers, N. & Kent, J. 2004. *The New Consumers: The Influence of Affluence on the Environment*. Washington, DC: Island Press.

Nash, H. 2009. The European Commission's sustainable consumption and production and sustainable industrial policy action plan. *Journal of Cleaner Production* 17(4):496–498.

Naughten, B. 2010. US foreign energy policy and grand strategy choice: global systemic crises confronting the Obama administration. *International Journal of Global Energy Issues* 33(1–2):89–119.

Polimeni, J., Mayumi, K., Giampietro, M., & Alcott, B. 2008. *Jevons' Paradox and the Myth of Resource Efficiency Improvements*. London: Earthscan.

Princen, T. 2005. *The Logic of Sufficiency*. Cambridge, MA: MIT Press.

Rockström, J., Steffen, W., Noone, K., Persson, A., Chapin, F., Lambin, E., Lenton, T., Scheffer, M., Folke, C., Schellnhuber, H., Nykvist, B., de Wit, C., Hughes, T., van der Leeuw, S., Rodhe, H., Sörlin, S., Snyder, P., Costanza, R., Svedin, U., Falkenmark, M., Karlberg, L., Corell, R., Fabry, V., Hansen, J., Walker, B., Liverman, D., Richardson, K., Crutzen, P., & Foley, J. 2009. A safe operating space for humanity. *Nature* 461(24):472–475.

Rohracher, H. 2008. Energy systems in transition: contributions from social sciences. *International Journal of Environmental Technology and Management* 9(2–3):144–161.

Røpke, I. 2009. Theories of practice: new inspiration for ecological economic studies on consumption. *Ecological Economics* 68(10):2490–2497.

Sampford, C. 2010. Re-conceiving the good life: the key to sustainable globalization. *Australian Journal of Social Issues* 45(1):13–24.

Scholl, G., Rubik, F., Kalimo, H., Biedenkopf, K., & Söebech, T. 2010. Policies to promote sustainable consumption: innovative approaches in Europe. *Natural Resources Forum* 34(1):39–50.

Schor, J. 2005. Prices and quantities: unsustainable consumption and the global economy. *Ecological Economics* 55(3):309–320.

Schor, J. 2010. *Plenitude: The New Economics of Truth Wealth*. New York: Penguin.

Seidman, L. 1997. *The USA Tax: A Progressive Consumption Tax*. Cambridge, MA: MIT Press.

Speth, J. 2010. *A New American Environmentalism and the New Economy*. Tenth Annual John H. Chafee Memorial Lecture on Science and the Environment. Washington, DC: National Council for Science and the Environment.

Tabuchi, H. 2009. When consumers cut back: an object lesson from Japan. *The New York Times* February 22:A1.

Tukker, A., Cohen, M., Hubaeck, K., & Mont, O. 2010. The impacts of household consumption and options for change. *Journal of Industrial Ecology* 14(1):13–30.

United Nations. 1992. *Agenda 21: The United Nations Programme of Action from Rio*. New York: United Nations.

van Griethuysen, P. 2010. Why are we growth-addicted? The hard way towards degrowth in the involuntary western development path. *Journal of Cleaner Production* 18(6):590–595.

Vergragt, P. & Brown, H. 2007. Sustainable mobility: from technological innovation to societal learning. *Journal of Cleaner Production* 15(11–12):1104–1115.

Victor, P. 2008. *Managing Without Growth: Slower by Design, Not Disaster*. Northampton, MA: Edward Elgar.

Zhao, W. & Schroeder, P. 2010. Sustainable consumption and production: trends, challenges, and options for the Asia-Pacific region. *Natural Resources Forum* 34(1):4–15.