The Shifting Political Economy of the Global Agrifood System: Consumption and the Treadmill of Production

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Abstract

While the treadmill of production continues to be a tremendously useful tool for understanding environmental degradation and social problems, it must be updated on at least two fronts to bring it into alignment with new political and economic realties of the global economy. First, the treadmill needs to be broadened to include how large retailers, like Wal-Mart, not only control marketing and distribution, but also production. Second, the treadmill must account for the restructuring of the nation-state which has produced new forms of governance and new opportunities for social movements that challenge more traditional theories of political and economic relations. These transformations are looked at specifically in the context of the global agrifood system because we believe it is emblematic of the political and economic transformations taking place more generally. Given these new political and economic realities, we argue that the model of social change presented by scholars of the treadmill must be expanded beyond state-centered approaches to include market-based strategies to slow or alter environmental and social problems.

Key Words

Treadmill of production, food and agriculture, commodity-chain analysis, governance, social movements, consumption

The treadmill of production model has been one of the prominent theories in environmental sociology over the past two and a half decades (Gould et al. 1996; Schnaiberg and Gould 1994; Schnaiberg 1980). According to this theory, competitive pressures drive firms to continually upgrade and intensify production practices thereby producing increasing levels of environmental degradation and social exploitation and injustice.

While the treadmill of production continues to have much currency, it requires updating on at least two fronts based on changes that have occurred since the idea was first introduced (Schnaiberg 1980).

The first aspect of the treadmill model that needs updating is its almost exclusive focus on production. The treadmill of production thesis was based on Fordism and the politics of monopoly capital. However, in the past two decades new forms of economic organization and modes of governance have proliferated, as capital has faced multiple forms of resistance and opportunity. The result is new centers of profitability and power, and new forms of supply chain management. A significant change has been the emergence of large retail oligopolies, such as Wal-Mart that have emerged in many sectors of the economy. These retailers create new economic hierarchies in which producers no longer fully control production practices (Gereffi 1994). The resulting restructuring of the relations between producers, consumers, institutions, and governments has implications for how we theorize and understand the modern treadmill of production.

Second, the model needs to be updated regarding its implications for social movements. The shift from government to governance—the transition from the state having sole authority over regulation to regulation as the joint responsibility of the state and private actors—has transferred power from the nation-state to private entities (Jessop 2003; Marsden et al. 2000). As a result, the nation-state is less capable to act on behalf of and in response to social movements (Newell 2000). However, at the same time, the shift from government to governance, coupled with the formation of retail oligopolies, also provides new opportunities for social movements. We argue that the use of market-based strategies that target particular commodities and/or retailers has become a potentially effective means of slowing the treadmill of production.

We chose to use the global agrifood system as a framework in which to re-examine the treadmill model because we believe it is emblematic of a post Fordist economy. The recent rise of transnational supermarket chains (TSCs), such as U.S.-based Wal-Mart, France-based Carrefour, and Netherlands-based Ahold, have resulted in a decline of state control over markets, labor, and environmental impacts. These new TSCs are transnational in their corporate constitutions, multinational in their sourcing, international in their labor allocation, and global in their consumer marketing strategies (Barber 1996). As a result, they are able to circumvent the authority of states and extend their corporate control from production through distribution to consumption.

The Treadmill of Production

In his discussion of the treadmill of production, Allan Schnaiberg (1980) argues that to understand the productive structure of environmental problems, we must link them to the productive structure of modern societies, and specifically to the growth of monopoly capitalism. In the treadmill of production, ecosystem elements, such as minerals, forests, and water, are converted by capitalism through market exchanges into profits. These profits are then reinvested into the production process to upgrade technology and other productive assets. This reinvestment process, in theory, makes production practices more efficient, which in turn requires greater withdrawals from ecosystem stocks. In addition to increased *withdrawals*, this capital intensification of production also increases the amount of *additions*, largely in the form of pollution--often referred to simply as "externalities"—into the ecosystem. The basic structural force driving the treadmill is the inherent nature of competition and concentration of capital in the modern industrial world (Schnaiberg 1980; Schneiberg and Gould 1994). Over time the treadmill results in increasing environmental withdrawals and additions, which in turn results in a more intensive production process or treadmill (Schnaiberg 1980).

Building on O'Connor's (1973) *Fiscal Crisis of the State*, Schnaiberg (1994) argues that the state has severe internal conflicts regarding environmental issues. The state, through its role as facilitator of capital accumulation and economic growth, utilizes environmental resources for their exchange values. By contrast, as a legitimator of the socioeconomic structure, the state is also driven to protect ecosystems for their use-value to citizens. However, the state often privileges exchange-value over use-value needs, thereby encouraging an intensification of withdrawals and additions, and therefore environmental degradation. Environmental degradation causes resource scarcities, air and water pollution, deforestation, landfill shortages, global climate change, and ozone depletion, among other things. Many of the effects of environmental degradation tend to be disproportionately concentrated among the poor, racial minorities and people in the global south. (Bullard 1990; Bullard 1993; Szasz and Meuser 1997).

Traditional mechanisms for decelerating the treadmill have operated through the regulatory powers of the nation-state. The state is the only legitimate authority that is able to regulate negative externalities—ranging from unemployment and worker safety, to resource extraction and processing—to correct for the abuses of monopoly capital. However, the regulation *of* the treadmill often becomes regulation *by* the treadmill (Schnaiberg 1980). Because the state

benefits from continued economic growth (i.e., taxes, and more indirectly, a trickling down of benefits to workers), it tends to facilitate the continual acceleration of the treadmill. As a result, the state is only likely to restrict production when there is both a sufficient crisis in the treadmill and sufficient political support for change (Schnaiberg 1980).

Labor and environmental movements have not traditionally relied on the actions of consumers, who were viewed as an ineffective social and political force (Schnaiberg 1980). Compared to producers, consumers' power was seen as negligible because of the individual and uncoordinated nature of consumption. While the environmental and labor movements continue to be critical forces of opposition to the treadmill, these movements have been mostly ineffective in reversing the treadmill.[1] We argue that political and economic changes have made consumers into a powerful political force that social movements can use to oppose the treadmill.

Buyer-driven Commodity Chains and Retail Oligopolies

The transition from Fordism to flexible accumulation has produced new forms of economic organization and modes of governance that have significantly transformed the global political economy (Harvey 1989: 147). Buyer-driven commodity chains represent one major manifestation of increased governance. Because retailers control such large shares of the market, they are able to coordinate and control production and other upstream processes, in addition to distribution and marketing (Gereffi 1994; Hendrickson and Heffernan 2002; Ponte and Gibbon 2005). The effect is that retailers are able to impose rigorous price and performance standards on producers (Gereffi 1994) and circumvent or, at least, challenge the jurisdiction of nation-states in regards to labor, social welfare, and environmental standards.

Retailing has become increasingly competitive (Gereffi 1994). One result of this intensification in competition is a marked change in the character of competition from simply price to one of quality, service, and price (Busch and Bain 2004). For these buyer-driven commodity chains and retail oligopolies, the marketing of commodity attributes—such as quality and safety—and process characteristics—such as organic and fair

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[1] While the environmental movement has had some successes, many observers argue that it has not been successful at curtailing environmental degradation (Brulle 2000; Dowie 1997; Mertig et al. 2002). Additionally, neither the environmental movement nor the labor movements have significantly impacted the character of production (Gould et al. 1993).

trade—are increasingly where the greatest profitability is located[2] (Busch 2004; Busch and Bain 2004). Competition on quality, in addition to price, further shifts power downstream in commodity chains in that it is usually consumers and retailers who control the qualification of goods, and not producers. This is evident in the global agrifood system, where retailers are increasingly positioning themselves as consumer representatives, and use this to legitimate their demands on upstream producers regarding product attributes and production processes (Marsden et al 2000).

Government to Governance

Political transformations have paralleled the economic transformation to more flexible practices of accumulation. First, nation-states were crippled by on-going fiscal crises. Second, in the 1980s, government processes were viewed as obstacles to the rapid implementation of policies regarded as necessary by capital for economic recovery and continued prosperity (Swyngedouw et al. 2002: 13). Third, the ideology of small government, devolution of authority, and privatization became the foundation for many neo-conservative governments (i.e., Thatcherism and Reaganism). Fourth, the globalization of capital increasingly limited the control of nation-states over their political economies (Hardt and Negri 2000). Cumulatively, these changes represent a decline of the progressive activist state in many industrialized countries (Schnaiberg 2002).

The political transformations of the last two and a half decades have shifted regulation so that it is increasingly taking place outside the realm of the state (Swyngedouw et al. 2002). The state has lost its power as the sole sovereign authority (Jessop 2003). Both accumulation and legitimation are now joint practices of state and non-state actors (Mayer 1998). As a result, the nation-state has become one of *many* actors in the political economy, which could suggest that participation in policy and regulation has become potentially more open and democratic. We characterize this transition from the state having sole authority over regulation to regulation as the joint responsibility of the state and private actors (both corporations and non-governmental organizations), as a shift from government to governance.

This shift potentially creates political and economic opportunities for social movements. For example, in many instances, participation at

[2] Many buyer-drive commodity chains resemble what Callon et al. (2002) call "economies of quality,"in which the qualities of products have become the primary locus of competition, as opposed to price. In such instances, product attributes and how a product is produced become increasingly important.

the local level has been made easier by the devolution of authority to sub-national political units (Gould et al. 1996). The shift from government to governance has also made some corporations more vulnerable to social movement pressure, as they are no longer just economic actors, but also increasingly political ones as well. That is, by becoming involved in regulation, corporations have taken on new responsibilities, for which they can be held liable (Busch and Bain 2004; Marsden et al. 2000) .

However, the shift from government to governance is also potentially disabling to social movements. For example, as the politics of the World Trade Organization and other supranational institutions illustrate, participation may become less democratic. Systems of governance tend not to have codified rules for participation (Swyngedouw et al. 2002). Thus, if corporations are able to set the rules, it is quite possible that social movements will be further marginalized in the future, as they may be excluded from corporate-state governance networks. Lastly, the shift from government to governance threatens the traditional strategy of social movements to pressure the government to enact legislation. If the state no longer has direct regulatory authority over production, then it may not have the capability to implement reforms advocated by social movements.

The Global Agrifood System

For the food retail sector the 1990s was marked by a series of continuous mergers. From 1996 to 2000, nearly 3,500 supermarkets, representing more then $67 billion in annual sales, were purchased in the U.S. (Kaufman 2000). While the top five food retail chains—Safeway, Albertson's, Kroger, Ahold, and Wal-Mart—represented 19 percent of U.S. grocery sales in 1992, they accounted for 42 percent in 2003. (Caspers-Simmet 2003: 2).[3] Similar trends of increased concentration are also apparent in Europe (Cotterill 1999: v). Furthermore, TSCs are also increasingly expanding into developing regions, including much of Latin America and parts of Asia (Reardon and Berdegue 2002). For example, Wal-Mart is now the largest retailer in Mexico (Schwentesius and Gomez 2002), while in Costa Rica two supermarkets, which are joint ventures between Costa Rican and foreign firms, control 81 percent of supermarket sales and 40% of all Costa Rican food purchases (Alvardo and Charmel 2002). The effect of this concentration and consolidation

[3] Regional and local markets are even more concentrated. In 1998, for the 100 largest Metropolitan Statistical Areas, the largest four firms in each area on average controlled 72.3 percent the market, while the eight largest firms controlled 85 percent of the market on average (Kaufman 2000).

of the food market at the global level is that TSCs are increasingly controlling what food is grown where, how, and by whom.

Simultaneous with the concentration and consolidation of the food retail sector has been an increase in consumer concern regarding food quality (DuPuis 2000; Murdoch et al. 2000; Friedland 1994). Additionally, food safety crises, such as BSE in Great Britain and E. Coli outbreaks in the United States, have made consumers more cautious about the food they eat and how it is produced and prepared (Murdoch et al. 2000). Consequently, those who can afford it have become increasingly selective in the kinds of foods that they eat. The effect is that consumers are increasingly demanding ”quality products” (Murdoch et al. 2000). While most of these discerning consumers are located in the middle and upper classes of industrialized nations, rising incomes, coupled with greater diversity of products, is also producing a differentiation of consumption in many less developed countries (Reardon et al. 2005).

Increased demand by consumers for quality foods is contributing to distinct transformations in the global agrifood system. First, there has been a proliferation of "alternative agrifood networks" (Goodman 2003) that tend to largely function outside of the circuits of capital and are local and socially embedded. While such networks offer an alternative to conventional industrialized agriculture, and tend to be more socially just and environmentally sustainable (Goodman 2003), their transformative power is quite limited, as they continue to include only a small fraction of producers and consumers. For example, although organic agriculture is one of the fastest growing segments of U.S. agriculture, it continues to remain only a very minor part of agriculture with only 0.1 percent of all U.S. cropland certified as organic (National Agricultural Statistics Service 2004). Similarly, while sales of fair trade coffee in the U.S. are increasing quite rapidly, it too remains a minor part of the market.

Conventional agricultural networks are also experiencing an increased focus on quality. As outlined above, the development of retail oligopolies in the food retail sector is shifting competition from price to both quality and price in the global agrifood system. The rising importance of quality is evident by the proliferation of high-quality labels by retailers (Euromonitor 2005). This emphasis on quality potentially allows supermarkets to increase profitability (Busch and Bain 2004). It allows for market differentiation and for value to be added to ordinary commodities. For example, an apple is no longer simply an apple. Rather, an apple may be from a certain region (i.e., local), produced using specific practices (i.e., organic and fair trade), or of some exotic heirloom variety.

Recognizing the expanding market for high-quality products, and the value-added possibilities, large and medium retailers have begun to market themselves as suppliers of quality. For example, Wal-Mart recently introduced a new label for some of its products that is designed to compete with leading national brands on quality (Euromonitor 2005).

The turn to quality has also given rise to a new form of specialty retailer, namely high-quality, natural, and health retailers. While such retailers have existed for a long time, they have tended to be local stores on the fringe of the retail sector, and were not considered competitors by large retailers. However, beginning in the 1990s these alternative retailers have experienced tremendous growth, and are perhaps the most visible indicator of the growing importance of quality in the U.S. marketplace. The most prominent of them, Whole Foods, has expanded from six to 168 stores since 1988, with 58 new store openings planned (McGinn 2005; Whole Foods 2005).

The turn to quality in the food retail sector has concrete implications for agricultural production. For example, to ensure the quality of their products, TSCs are increasingly requiring that suppliers of fresh produce, meat, poultry, and seafood meet a set of private standards in the areas of quality, safety, authenticity, and "the goodness of the production process" (Reardon and Farina 2002). These standards are increasingly being developed by TSCs themselves and are often outside the jurisdiction of government mandates. In many instances, because a small number of TSCs control a large percentage of the market, such standards have become de facto mandatory. Thus, producers increasingly have no choice but to comply with private standards for quality, or face the prospect of going out of business (Busch and Bain 2004; Hatanaka et al. 2005). For example, in Kenya, many producers have been forced out of horticulture production in recent years because they have been unable to meet the increasingly stringent standards of British retailers (Freidberg 2003). Similarly, the implementation of private standards by Tops Supermarket Chain (Ahold) in Thailand in 2001 resulted in a dramatic reduction in the number of produce suppliers from 250 to 60 (Reardon et al. 2005).

The use of private standards by TSCs has shifted the locus of power within the global agrifood system from governments to industry, specifically the retail sector. Consistent with the shift from government to governance, regulation has moved beyond the state in the retail sector to private actors, most notably TSCs, who are increasingly responsible for food safety and quality. Marsden and Wrigley (1995) have labeled the emerging system of governance in the global agrifood system a "private-interest model of regulation." Corporations are no longer just able to influence government, but they are co-participants, and, in some

cases, the leading participants, in regulation (Marsden and Wrigley 1995: 1905). Consequently, in terms of food safety, the legitimacy of the state is now inseparably connected to the legitimacy of TSCs. As put by Marsden et al. (1997: 223; emphasis in original):

> Retailers, given their pivotal position in supplying choices, and the enhanced degrees of freedom conferred on them by government, become acutely important for the legitimation of the state and, more specifically, for the management of the food system *on behalf of the state and the consumer interest*.

This de-centering of the state implies that it is no longer the sole occupier of the pivotal position of mediating between the interests of capital and the public good. At the same time, the idea of civil society, at least in the global agrifood system, is being partially redefined from one comprised of citizens to one comprised of consumers. For it is through their buying practices that consumers, and not simply citizens, legitimize the policies and practices of TSCs.

The Front Stage and Backstage of the Global Agrifood System

Building on Goffman (1959; 1971), Hilgartner (2000) argues that the public presentation of science is often very different than how it is practiced. For example, while backstage there may be disagreement and controversy, on the front stage there is generally agreement and consensus. Hilgartner (2000) also notes that scientists, when presenting their findings to the public or a government panel, often tailor results to their audience. The metaphor of performance, and front and back stages, can similarly be applied to the role of large retailers in the global agrifood system.[4] Doing so makes possible an examination of the disjuncture that often exists between how TSCs publicly market themselves and their actual policies and practices.

On the front stage, TSCs in particular, and the global agrifood system in general, are providing the economically privileged strata with an increasing array of fresh and safe food. TSCs may claim that consumers are benefiting in that they have the option of fresh and relatively safe food, and also a plethora of niche goods, such as organics and fair trade. Farm laborers can be shown to benefit in that TSCs are increasingly requiring that the goods that they sell be in compliance with labor codes. TSCs may also claim that, in requiring that "best practices" be used in agricultural production, environments are also benefiting. However, we argue, if viewed from the backstage, the governance of the

[4] See Konefal, Mascarenhas, and Hatanaka (2005) for a more developed application of Goffman's (1959; 1971) idea of performance and front and back stages to the global agrifood system.

global agrifood system by retail oligopolies looks quite different.

Viewed from the backstage, the restructuring of the global agrifood system is driven by capitalist efficiencies and not public needs. In the context of further development of class diets and increased consumer concern over food, it is market saturation and low profitability that has driven mid-sized and large retailers to increasingly compete on quality (Busch 2004; Busch and Bain 2004; Marsden 2000). To the degree that environmental stewardship and social welfare programs increase profitability, or prevent a loss of profits, retailers will continue to engage in them and use them as marketing tools. While at times the interests of the public and of private firms might converge, it is plausible that they will be in conflict. Furthermore, private standards for food safety, labor, and the environment are always temporary, as the continued implementation of such standards is largely dependent on their continued profitability.

Changing consumer preferences have been an important stimulus for retailers. However, to say that consumers are driving the current restructuring of the global agrifood system is to ignore the power asymmetries between consumers and retailers (Marsden et al. 2000). Oligopolistic conditions in the retail sector, coupled with retailers' location at the end of commodity chains have positioned them so that they are able to exert considerable control on both upstream production processes and downstream consumption (Busch and Bain 2004). Consequently, additional costs associated with meeting new quality standards typically are the responsibility of farmers (Fox 2000), while consumer participation in the governance of the global agrifood system is nearly nonexistent (Busch 2003; Marsden et al. 2000).

In the global agrifood system, privatization is resulting in the consolidation of power in the hands of a few large global retailers. However, while neoliberal restructuring and globalization have enabled the emergence of a retailer-led system of governance in the global agrifood system, somewhat ironically, it is increased consumer concern that has legitimated such a mode of governance. If this is the case, then the possibility exists for consumer concern to be enrolled by other actors, namely social movements, and used to de-legitimate retailer power.

Because consumers remain largely outside the decision-making structure of the global agrifood system, and because the power individual consumers are able to exert as purchasers is limited, if consumers are to have voice in the governance of the global agrifood system they need to be mobilized into collectives. Thus, to counter the tendency towards privatization in the global agrifood system, social movements that both mobilize and strategically use consumers are necessary. We concur with

Buttel (1997: 352) that "the most important social forces that could provide a countervailing tide to the global integration of the agrifood system … [are] social movements."

Resisting the Treadmill: Production to Consumption

Traditionally social change is thought to be the outcome of social movements that use a variety of tactics (including lobbying, public demonstrations, and litigation) to pressure the state to advance movememt goals. (See figure 1). While pressuring the state continues to be one strategy of opposing the treadmill, we believe that there are now other avenues social movements can use to affect production. Specifically, market-based strategies that target corporations directly, or through consumers, are also becoming an effective means of slowing the treadmill of production..

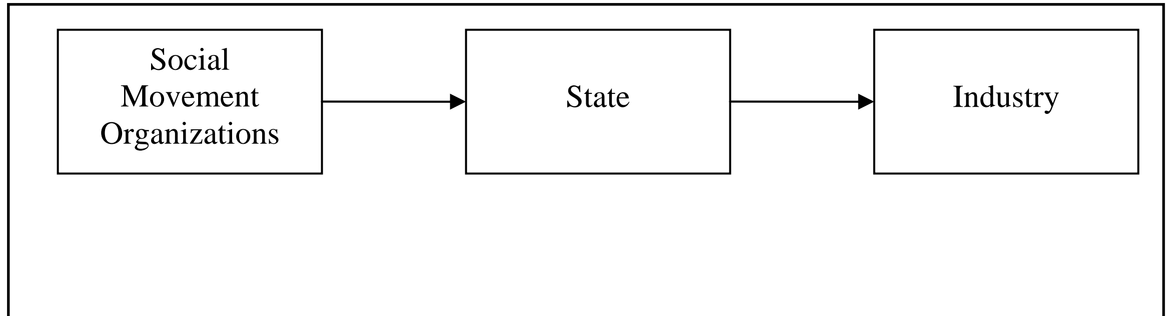

Figure 1: State-centered model of social movement pressure

As the progression towards governance occurs, the capability of states to enact legislation and advance, the causes of social movements weakens (Newell 2000). In response to such changes, social movements have begun to abandon traditional state-oriented mobilization. (O'Connor 2001). We argue that the use of the market needs to become a vital part of the strategic repertoire for many social movements. Market-based strategies seek to change a firm's behavior by affecting its market share. In using such strategies, social movements are seeking, first, to mobilize consumers and turn them into a potent collective force and, second, to target specific retailers and their reputations (See figure 2). In the latter case, what social movements are attempting to do is to participate in the framing of products, as well as retailers, in order to influence people's buying habits and retailers' procurement practices (Bailey et al. 2003). The goal of market-based strategies is to cut off or severely curtail the market for specific products, or, conversely, expand the market for certain products, in order to force changes in upstream production practices.

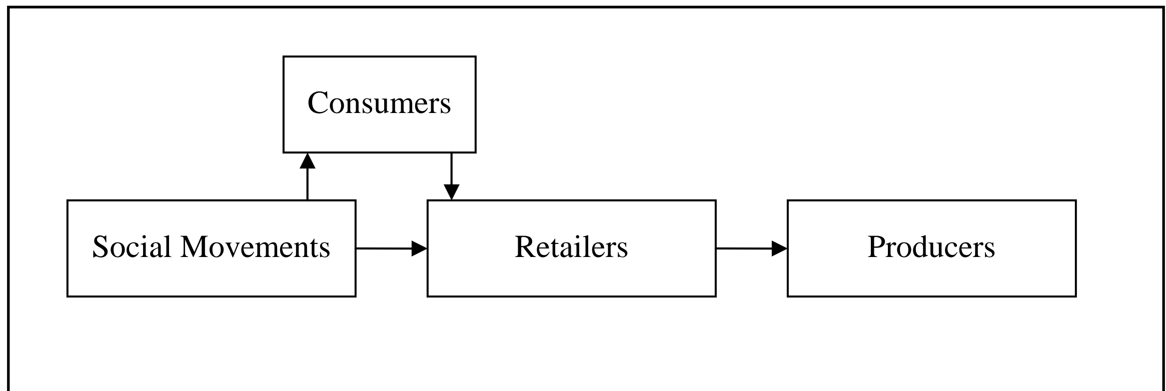

Figure 2: Market-based social movement pressure

Looking at the global agrifood system, we see that oligopolization and the increasing use of private standards by retailers are conditions that are favorable to the use of market-based strategies by social movements. While the emergence of retail oligopolies enables large retailers to increasingly dictate what commodities are grown where, how, and by whom, the transnational scope of TSCs makes them vulnerable to attacks on their reputations (Busch and Bain 2004). For example, news of an *E. coli* outbreak resulting from tainted meat at a Wal-Mart store in Michigan can quickly become international news, and scare consumers away from shopping at Wal-Marts all across the world. Furthermore, movements that can publicly air contradictory claims to the positive ecological, health, or cultural qualities of oligopolistic goods can have real and immediate impacts. For these reasons, market-based strategies have become, perhaps, the most viable strategy to address social injustices, such as unfair labor conditions and environmental degradation in the global agrifood system.

Market-based strategies use many of the same tactics as state-centered campaigns, including public demonstrations, lobbying, and litigation. However, while the tactics are often the same, their contents tend to differ, as the purpose of corporations is quite different from that of states. The legitimacy of states—at least democratic ones—rests on their ability to represent their citizens. Consequently, states must be responsive to social movement demands. In contrast, corporations have no public responsibilities. Rather, corporations are designed to produce profits, and profitability is the primary criteria on which they are judged (Bakan 2004). Thus, when targeting corporations, social movement success is dependent on the degree to which they can appeal to (or threaten) profitability. This approach is quite different from how social movements appeal to states, where they tend to use moral and ethical claims.

Using the market to encourage change in production practices has been a strategy of social movements for some time. Since the United Farmer Worker's boycott of table grapes, changes in political and economic conditions have made market-based strategies a powerful tool for social movements.[5] One example where the use of market-based strategies has been quite successful is in limiting the use of genetically-modified (GM) organisms in food in Europe (Schurman 2004). By attaching negative public perceptions to GM foods (such as the coining of "Frankenfoods") the anti-biotech movement in Europe was able to turn consumers against biotechnology and scare many retailers away from carrying them. The market for GM foods continues to be almost non-existent in much of Europe (Gaskell et al. 2003).

Whereas previously boycotts were aimed at specific commodities, today, with the consolidation, concentration, and trans-nationalization of retailers, social movements are also targeting specific retailers. This is the strategy that was undertaken by "the Paper Campaign," which sought to influence large upstream producers by pressuring major retailers, such as Staples, Office Max, and Office Depot (Bailey et al. 2003). Thus, even if producers are resistant to specific reforms in their production practices, in many instances, retailers are able to force producers into changes because they control the market. Getting retailers to change their standards and procurement practices may have a greater impact than changes in public regulations. This is particularly the case with the global extension of most production-supply networks, where private standards have become the de facto law in the absence of international regulations (Busch 2004).

The movement against farmed salmon is another example of market-based strategies in practice. Objecting to farmed salmon for a number of environmental, health, economic, and cultural reasons, a diverse collection of actors, including environmentalists, commercial and recreational fishers, Native Americans, coastal residents, concerned scientists, health advocates, and seafood consumer groups, have actively contested the development and expansion of salmon aquaculture (Goldberg 2003; Goldburg and Triplett 1997; Skladany 2003). Due to limited success in pressuring the governments to take action, the movement against farmed salmon is increasingly targeting retailers and consumers in an attempt to reform and/or put a stop to salmon aquaculture. Through media pressure, consumer education, and direct action against retailers, anti-farmed-salmon organizers are trying to attach negative public perceptions to farmed salmon, with the hope of

[5] The United Farmer Worker's Union in an effort to build a union and secure contracts organized a nation-wide boycott of table grapes in the US, which was effective at pressuring the government and agribusiness to begin negotiations with the union (Pulido 1996).

reducing the market for it. Such efforts are having at least limited success, as the “farmed and dangerous” campaign by the Coastal Alliance for Aquaculture Reform (CARR) has caused over 100 retailers and restaurants to stop selling farmed salmon. CARR recently achieved its largest success to date, with the announcement by Wild Oats Natural Marketplace that it would no longer carry farmed salmon from British Whole Foods (CAAR 2005).

The movement against farmed salmon has also had success in slowing, if not stopping altogether, the introduction of GM salmon. Kelso (2003) notes that, contrary to what one might expect, the salmon aquaculture industry has been very hesitant towards the introduction of GM salmon. This is because of the success with which anti-farmed-salmon and anti-biotech movements have attached negative images to GM salmon. Consequently, salmon farmers are concerned that negative public perceptions of GM salmon will not only hurt sales of GM salmon, but also all farmed salmon, as the two could easily become conflated in the minds of consumers. Thus, Kelso (2003, 95) argues that “for salmon aquaculture, public perception is reality, and negative public perceptions may outweigh the advantages of certain available technologies.” This example makes quite clear that social movements using market-based strategies can affect upstream practices in commodity chains.

As the cases above demonstrate, the use of market-based strategies by social movements can potentially slow the treadmill in one of the following three ways. First, through public relations campaigns social movements can influence people’s consumption habits. For example, in preventing the formation of a market for GM food in Europe, the anti-biotech movement was able to slow the treadmill of production by deterring corporate investment in agriculture biotechnology (Schurman 2003).

Second, social movements can use the *threat* of consumer backlash to constrain corporate power and influence corporate practices and decisions. In many instances, it has not been an actual change in consumption patterns, but the threat of negative publicity and consequent damage to a company’s reputation that has led to changes in its procurement practices. This has been the case with the adoption of corporate responsibility codes by many companies (Winston 2002). By adopting such codes “voluntarily,” companies can potentially escape the focus of social movements. At the same time, such codes can potentially slow the treadmill, as they require companies to adhere to human rights, labor, and environmental standards.

Third, social movements can function as a source of information for consumers beyond what is provided by the government and retailers.

In doing so, they can provide information that otherwise might not be publicly available and information that enables consumers to compare the social and environmental policies of various companies, and challenge claims of social and ecological responsibility by corporations. This additional information may help prevent retailers from covering up undesirable production processes with deceptive marketing. Instead, they may experience increased pressure to more stringently adhere to standards for social welfare and the environment, especially if such standards are part of how companies market themselves. Furthermore, the availability of such information, may, in turn, stimulate some consumers to change their purchasing habits, or lead to new campaigns against specific retailers or commodities.

While the use of market-based strategies is a promising strategy for many social movements, caution is needed regarding the long-term efficacy of such an approach. Bailey et al. (2003: 10; emphasis in original) note that

> to assume that corporations in the retail or manufacturing sectors will simply continue doing the right thing absent continual pressure is *wildly* optimistic. To assume that campaigns to educate consumers will have a lasting impact on purchasing behavior in the absence of continual efforts is perhaps *merely* optimistic.

In other words, if social movements come to predominately rely on market-based strategies, they will need to undertake continual mobilization and action, which is not easy. Furthermore, social movements that use market-based strategies have a considerable opponent in the form of corporate marketers, who, in part, seek to counter the information disseminated by social movement actors (Rampton and Stauber 2001). Big business spends over a trillion dollars a year on marketing (Dawson 2003), and much of that amount is used to silent market-based strategies that contest the treadmill of production.

Despite the above drawbacks, with the "tilting" of the treadmill more and more toward the market, social movements increasingly have no choice but to try to use the market against capital. With the shift from government to governance, social movements can no longer just pressure the state to implement policies that advance their goals, as the state no longer has the regulatory capability it once did (See figure 3).[6] Rather,

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[6] This is not to say that social movements should ignore the state altogether, as the state remains a central actor in today's emerging systems of governance. To the extent that social movements are able to get regulations enacted, they should continue to do so, as government regulations have greater permanence then consumer purchasing habits or corporate responsibility codes. Furtheremore, social movements can also pressure states to enact legislation that makes it easier for movement organizations to mobilize, provide information, and serve as corporate watchdogs (Gunningham et al. 1999). One

social movements need to serve as corporate watchdogs and seek to insert themselves directly into governance systems. As discussed above, one way to do this is through the use of market-based strategies, which require social movements to enroll consumers as allies to check corporate power. In doing so, consumers are transformed from largely passive actors into potential political agents that do not simply accept what corporations present to them, but demand that the foods that they eat be safe, of a high quality, and produced in specific ways. Thus, while Schnaiberg (1980) is right that the power of individual consumers is negligible, he fails to consider the collective power of consumers.[7] Collectively, the power of consumers is a possibly potent force capable of slowing the treadmill in today's world.

While not transformative of the basic capitalist political and economic structure, market-based strategies paired with the continued pressuring of states, offer possibilities for slowing the treadmill. Such a slowing of the treadmill could lead to real and meaningful changes that would improve conditions for people and the environments in which they live.

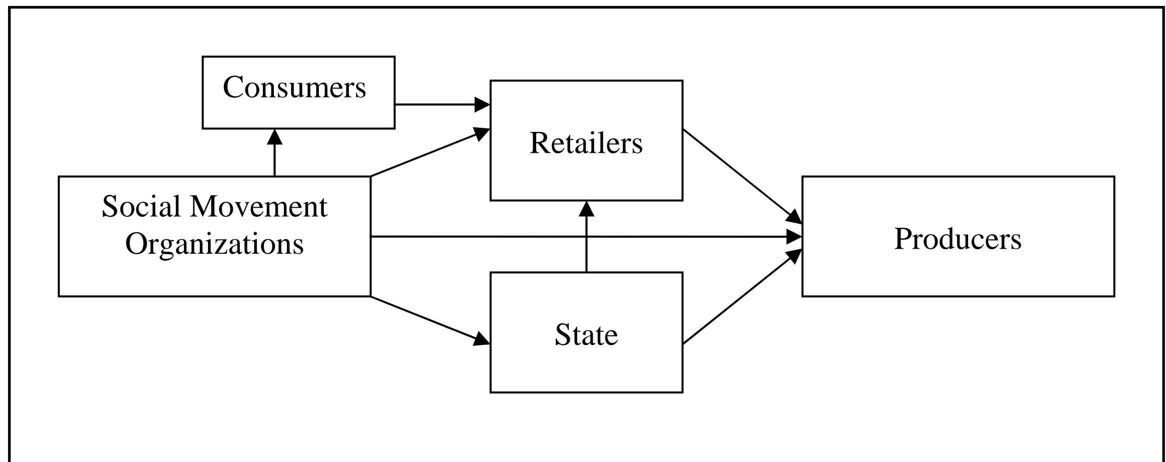

Figure 3: New model of social movement pressure

example is the requirement that additional information be included on product labels, such as whether or not a product contains GM material or not.

[7] This is not necessarily Schnaiberg's fault, as the politics of consumption is very different today then it was in 1980. However, consumption continues to receive little attention by theorists of the treadmill.

References

Alvardo, I., and K. Charmel. 2002. "The Rapid Rise of Supermarkets in Costa Rica: Impact on Horticultural Markets." *Development Policy Review* 20:473-485.

Bailey, C., P. Sinclair, and M. DuBois. 2003. "Pushing Paper: Market Demand and Market-Based Environmentalism." Paper presented at the Annual Meeting of the Rural Sociological Society, Montreal, CA.

Bakan, J. 2004. *The Corporation: The Pathological Pursuit of Profit*. New York: Free Press.

Barber, B. R. 1996. *Jihad vs. McWorld: How Globalism and Tribalism are Reshaping the World*. New York: Ballantine Books.

Brulle, R. J. 2000. *Agency, Democracy, and Nature: The U.S. Environmental Movement from a Critical Theory Perspective*. Cambridge, MA: MIT Press.

Bullard, R. D. 1990. *Dumping in Dixie: Race, Class, and Environmental Quality*. Boulder, CO: Westview Press.

—. 1993. "Anatomy of Environmental Racism." Pp. 25-35 in *Toxic Struggles; The Theory and Practice of Environmental Justice*, edited by Richard Hofrichter. Philadelphia, PA: New Society Publishers.

Busch, L. 2003. "Virgil, Vigilance, and Voice: Agrifood Ethics in an Age of Globalization." *Journal of Agricultural and Environmental Ethics* 16:459-477.

—. 2004. "The Changing Food System: From Markets to Networks." Paper presented at the *XI World Congress of the International Rural Sociological Association*, Trondheim, Norway.

Busch, L., and C. Bain. 2004. "New! Improved? The Transformation of the Global Agrifood System." *Rural Sociology* 69:321-346.

Buttel, F. H. 1997. "Some Observations on Agrifood Change and the Future of Agricultural Sustainability Movements," Pp. 344-365 in *Globalising Food: Agrarian Questions and Global Restructuring*, edited by D. Goodman and M. Watts. New York: Routledge**.**

Callon, M., C. Meadel, and V. Rabeharisoa. 2002. "The economy of qualities." *Economy and Society* 31:194-217.

Caspers-Simmet, J. 2003. "Concentration called troubling trend." *Agri-News*, February 11, 2003.

Coastal Alliance for Aquaculture Reform (CARR). 2005. "Farmed and Dangerous." http://www.farmedanddangerous.org. Accessed 3/23/05.

Cotterill, R.W. 1999. "Continuing Concentration in Food Industries Globally: Strategic Challenges to an Unstable Status Quo." Research Report No. 49. Food Marketing Policy Center, University of Connecticut, Storrs, CT.

Dawson, M. 2003. *The Consumer Trap: Big Business Marketing in*

American Life. Chicago: University of Illinois Press.
Dowie, M.. 1997. *Losing Ground: American Environmentalism at the Close of the Twentieth Century*. Cambridge, MA: MIT Press.
DuPuis, E.M. 2000. "Not in my body: rBGH and the rise of organic milk." *Agriculture and Human Values* 17: 285-295.
Euromonitor 2005. *Global Private Label Retailers & Suppliers*. London: Euromonitor International.
Fox, T. 2000. “Supermarket Squeeze.” *Tomorrow Magazine* 10: 22-24.
Freidberg, S. E. 2003. "Culture, conventions and colonial constructs of rurality in south-north horticultural trades." *Journal of Rural Studies* 19:97-109.
Friedland, W. H. (1994). "The New Globalization: The Case of Fresh Produce," in L. Busch, A. Bonanno, W. Friedland, L.Gouveia, and E. Mingione. *From Columbus to ConAgra: The Globalization of Agriculture and Food*. Lawrence, KS: University Press of Kansas**.** 210-231.
Gaskell, G., N. Allum, and S. Stares. 2003. *Europeans and Biotechnology in 2002: Eurobarometer 58.0*. Brussels: European Commission.
Gereffi, G. 1994. "The Organization of Buyer-Driven Global Commodity Chains: How U.S. Retailers Shape Overseas Production Networks" Pp. 95-122 in *Commodity Chains and Global Capitalism*, edited by G. Gereffi and M. Koreniewicz. Westport, CT: Praeger.
Gereffi, G., R. Garcia-Johnson, and E. Sasser. 2001. "The NGO-Industrial Complex." *Foreign Policy* 125:56-65.
Goffman, E. 1959. *The Presentation of Self in Everyday Life*. Garden City, NY: Doubleday, Anchor Books.
Goffman, E. 1971. *Relations in Public*. New York: Basic Books.
Goldburg, R., and T. Triplett. 1997. "Murky Waters: Environmental Effects of Aquaculture in the US." Washington, DC: Environmental Defense Fund.
Goldburg, R., M. S. Elliot, and R. L. Naylor. 2001. "Marine Aquaculture in the United States: Environmental Impacts and Policy Options." Arlington, VI: Pew Oceans Commission.
Goodman, D. 2003. "The quality 'turn' and alternative food practices: reflections and agenda." *Journal of Rural Studies* 19:1-7.
Gould, K. A., A. Weinberg, and A. Schnaiberg. 1993. "Legitimating impotence: pyrrhic victories of the modern environmental movement." *Qualitative Sociology* 16:207-246.
Gould, K.A., A. Schnaiberg, and A.S. Weinberg. 1996. *Local Environmental Struggles: Citizen Activism in the Treadmill of Action*. Cambridge: Cambridge University Press.
Gunningham, N., M. Phillipson, and P. Grabosky. 1999. "Harnessing Third Parties as Surrogate Regulators: Achieving Environmental

Outcomes by Alternative Means." *Business Strategy and the Environment* 8:211-224.
Hardt, M. and A. Negri. 2000. *Empire*. Cambridge, MA: Harvard University Press.
Harvey, D. 1989. *The Condition of Postmodernity: An Enquiry into the Origins of Cultural Change*. New York: Blackwell.
Hatanaka, M., C. Bain, and L. Busch. 2005. "Third-party Certification in the Global Agrifood System: Causes and Consequences." *Food Policy*: Forthcoming.
Hendrickson, M.K. and W.D. Heffernan. 2002. "Opening Spaces through Relocalization: Locating Potential Resistance in the Weakness of the Global Food System." *Sociological Ruralis* 42:347-369.
Hilgartner, S. 2000. *Science on Stage: Expert advice as public drama*. Stanford: Stanford University Press.
Jessop, B. 2003. "Governance and Meta-governance: On Reflexivity, Requisite Variety, and Requisite Irony." *Working Paper*. Lancaster, UK: Department of Sociology, Lancaster University.
Kaufman, R.R. 2000. "Consolidation in Food Retailing: Prospects for Consumers & Grocery Suppliers." Pp. 18-22 in *Agriculture Outlook*. August.
Kelso, D. D. T. 2003. "The Migration of Salmon from Nature to Biotechnology." Pp. 84-110 in *Engineering Trouble: Biotechnology and Its Discontents*, edited by R. Schurman and D. D. T. Kelso. Berkeley: University of California Press.
Konefal, J, M. Mascarenhas, and M. Hatanaka. 2005. "Governance in the Global Agrifood System: Backlighting the Role of Transnational Supermarket Chains." *Agriculture &Human Values*: Forthcoming.
Marsden, T., A. Flynn, and M. Harrison. 1997. "Retailing, Regulation, and Food Consumption: The Public Interest in a Privatized World?" *Agribusiness* 132: 211-226.
—. 2000. *Consuming interests: The social provision of foods*. London: UCL Press.
Marsden, T. and N. Wrigley. 1995. "Regulation, retailing, and consumption." *Environment and Planning A* 27: 1899-1912.
Mayer, M. 1998. "The Changing Scope of Action in Urban Politics: New Opportunities for Local Initiatives and Movements" Pp. 66-75 in *Urban Worlds: Urban Strategies at the End of the 20th Century*, edited by R. Richard Wolff. Boston: Birkhäuser.
McGinn, D. 2005. "The Green Machine." Pp. 36 in *Newsweek*. March 21.
Mertig, A. G., R.E. Dunlap, and D.E. Morrison. 2002. "The Environmental Movement in the United States." Pp. 448-481 in *Handbook of Environmental Sociology*, edited by R.E. Dunlap and W. Michelson. Westport, CT: Greenwood.

Murdoch, J., T. Marsden, and J. Banks. 2000. "Quality, nature, and embeddedness: Some theoretical considerations in the context of the food sector." *Economic Geography* 762: 107-125.
National Agricultural Statistics Service. 2004. *2002 Census of Agriculture*. Washington, DC: United States Department of Agriculture.
Newell, P. 2000. "Environmental NGOs and Globalization: The Governance of TNCs." Pp. 117-133 in *Global Social Movements*, edited by R. Cohen and S. M. Rai. London: Athlone Press.
O'Connor, J. 1973. *The Fiscal Crisis of the State*. New York: St. Martin's Press.
O'Connor, J. 2001. "House Organ." *Capitalism, Nature, Socialism* 12: 1-2, 163-172.
Ponte, S., and P. Gibbon. 2005. "Quality standards, conventions and the governance of global value chains." *Economy and Society* 34:1-31.
Pulido, L. 1996. *Environmentalism and Economic Justice: Two Chicano Struggles in the Southwest*. Tucson, AZ: The University of Arizona Press.
Rampton, S., and J. Stauber. 2001. *Trust Us, We're Experts! How Industry Manipulates Science and Gambles with Your Future*. New York: Jeremy P. Tarcher/Putnam.
Reardon, T. and J.A. Berdegue. 2002. "The Rapid Rise of Supermarkets in Latin America: Challenges and Opportunities for Development." *Development Policy Review* 20: 371-388.
Reardon, T. and E. Farina. 2002. "The Rise of Private Food Quality and Safety Standards: Illustrations from Brazil." *International Food and Agribusiness Management Review* 4: 413-421.
Reardon, T., C. P. Timmer, and J. A. Berdegue. 2005. "Supermarket Expansion in Latin America and Asia." Pp. 47-61 in *Agriculture Information Bulletin Number 94: New Directions in Global Food Markets*, edited by A. Regmi and M. Gehlhar. Washington, DC: United States Department of Agriculture.
Schnaiberg, A. 1980. *The Environment: From Surplus to Scarcity*. New York: Oxford University Press.
—. 1994. "The Political Economy of Environmental Problems and Policies: Consciousness, Conflict, and Control Capacity." *Advances in Human Ecology* 3: 23-64.
—. 2002. "Reflections on my 25 years before the mast of the environment and technology section." *Organization and Environment* 151: 30-41.

Schnaiberg, A. and K.A. Gould. 1994. *Environment and Society: The Enduring Conflict*. New York: St. Martin's Press.
Schurman, R.A. 2003. "Biotechnology in the New Millennium: Technological Change, Institutional Change, and Political

Struggle." Pp. 1-23 in *Engineering Trouble: Biotechnology and Its Discontents*, edited by R.A. Schurman and D.D.T. Kelso. Berkeley: University of California Press.

—. 2004. "Fighting "Frankenfoods": Industry Opportunity Structures and the Efficacy of the Anti-Biotech Movement in Western Europe. *Social Problems* 51:243-268.

Schwentesius, R., and M. A. Gomez. 2002. "Supermarkets in Mexico: Impacts on Horticulture Systems." *Development Policy Review* 20:487-502.

Skladany, M. 2003. "On Global Pond: Change and Resistance in the Rise, Motion, Struggle Over Salmon Fisheries and Aquaculture." Paper presented at the *Mini-Conference on Resistance and Agency in Contemporary Agriculture and Food*, Austin, TX.

Swyngedouw, E., B. Page, and M. Kaika. 2002. "Sustainability and Policy Innovation in a Multi-Level Context: Crosscutting Issues in the Water Sector," Pp. 107-131 in *Participatory Governance in Multi-Level Context: Concepts and Experience*, edited by P. Getimis, H. Heinelt, G. Kafkalas, R. Smith, E. Swyngedouw Opladen: Leske & Budrich.

Szasz, A. and M. Meuser. 1997. "Environmental Inequalities: Literature Review and Proposals for New Directions in Research and Theory." *Current Sociology* 45:99-120.

Whole Foods. 2005. "Whole Foods Market." http://www.wholefoods.com. Accessed on March 24, 2005.

Winston, M. 2002. "NGO Strategies for Promoting Corporate Social Responsibility." *Ethics & International Affairs* 16:71-87.