New Labor: Slowing the Treadmill of Production?

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The treadmill of production serves as one of the most powerful theoretical frameworks for analyzing society-environment relations. It recognizes contemporary environmental issues not as isolated problems resulting from particular production processes, but rather, it approaches the complex interaction of social, economic and political forces in capitalist democracies that together constitute a system that is generally incompatible with sustainable ecological functioning (Schnaiberg 1980, Schnaiberg and Gould 1994). Within the treadmill framework "Economic expansion is generally viewed as the core of any viable social, economic or environmental policy" (Schnaiberg, Pellow and Weinberg 2002, 17). The confluence of social forces around this logic systematically yields considerable eco-system withdrawals (resource depletion) and additions (pollution), which together represent what we understand to be environmental problems.

The three major sectors implicated in this ecologically destructive mechanism are capital, labor and the state. Together these three sectors generate both the means and the will to perpetuate an ever-expanding system of production that threatens to deplete resources, disrupt ecosystems and ultimately destroy the material foundation upon which all life and society are based.

Capital, labor and the state act in conjunction with one another, creating the overall logic of the treadmill, yet each operates on the basis of its own incentive mechanisms and underlying ideology. Within free market economies capital is by definition oriented towards the generation of profit. The competitive drive that characterizes the capitalist system compels firms to relentlessly expand production and improve efficiency in order to ensure continued profitability. In the post war years this led to the use of ever greater material inputs and energy/chemical intensive technologies, both developments which increase ecological disorganization (Schnaiberg, Pellow and Weinberg 2002). Government plays its role in facilitating economic expansion by aiding capital, encouraging consumption, managing failures inherent to market economies and providing the necessary legitimation for the system by addressing certain public needs. State actors are motivated to propel the treadmill through direct control by and demands

from the owners of capital and through public pressure, both of which determine political career outcomes. Politicians seek to curry the favor of wealthy campaign contributors who strive to protect and expand profits. They also seek broad popular support through the sound management of the economy, which provides employment to the citizenry, and through the provision of public services, which are made possible by growing tax revenues that ultimately result from economic expansion. Labor, the third major actor on the treadmill, is driven by its own set of interests. Labor seeks to benefit by claiming a share of the expanding wealth that is generated by the dynamic capitalist economy. Labor also has an interest in economic expansion due to the promise of the reemployment of workers left jobless by the previous round of capital intensification, what has been called the "social treadmill" which perversely complements the environmentally destructive dimension of the same system (Schnaiberg, Pellow and Weinberg 2002).

Within the treadmill of production framework this self-reinforcing system has no checks to prevent ecological ruin. A consensus develops among these powerful sectors that economic growth is necessary to advance social well being. Each actor plays a unique and necessary role perpetuating the system. But given the interdependent nature of the treadmill system, should the growth consensus falter or if one sector were to refrain from cooperating, the treadmill may be slowed or halted.

In this paper I argue that labor represents the weakest link in the treadmill chain and that a reformed labor movement offers the greatest potential for a redirection of the system as a whole. Although unions have not traditionally made environmental protection a central concern, their adoption of an ecological perspective is essential to halting the treadmill (Schnaiberg 1980, Schnaiberg and Gould 1994). To date, independent voluntary social movement organizations have been the leading force advancing the environmental cause. But the structural and ideological power behind the treadmill is unlikely to be seriously challenged by any movement composed of independent voluntary organizations. Environmental movement organizations have succeeded in having instituted some reforms that ameliorate the effects of certain production processes, but they have failed to redirect the system itself (Dowie 1995, Foster 1999, Gottlieb 1993, 2001). Halting the treadmill will require that at least one internal participant reject the existing system and embrace an ecological logic in which

environmental concerns are given at least as much consideration as economic ones. Labor is the most likely sector to abandon the treadmill ideology.

For the most part, throughout recent history organized labor has fulfilled its role helping to power the treadmill of production. An analysis of historical documents conclusively demonstrates that organized labor in the United States has emphatically promoted expanded production, in some cases more forcefully than capital itself[1]. Yet, while unions have regularly called for economic growth, there is some evidence that contradicts this general characterization. Workers may potentially benefit from economic growth, but organized labor's success requires not just economic expansion, but also the distribution of that wealth and the protection of workers' lives and well being in the process. In pursuit of these other goals, labor's political advocacy has at times favored policies that require resource conservation and which restrict the most egregious assaults on natural ecosystems. In many instances unions have called for the redirection of resources away from productive reinvestment and towards meeting non-material human needs such as education, healthcare and leisure time recreational activities.

Other questions can also be raised about whether unions only serve to speed the treadmill. To the extent that unions impose restrictions on management control, in some cases organized workers may actually slow the treadmill of production. Health and safety concerns also represent an area in which capital's interest in expanded production directly conflict with the interests of workers. While unions have traditionally prioritized their members' material well being, at times health concerns have led them to demand profit and efficiency threatening changes in production. In general, intentionally or unintentionally, labor has, in at least some instances, served to slow the treadmill of production.

In addition to the somewhat contradictory roles that labor has played historically, recent developments further call into question labor's definitive position on the treadmill. The "post war labor accord" in which labor and capital were firmly united in a

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[1] Research on organized labor's position on environmentally related issues was based upon an analysis of AFL-CIO Executive Council Statements and Reports and on the Proceedings of bi-annual Constitutional Conventions held since 1955. Official AFL-CIO positions are voted on at the Constitutional Conventions while the Executive Council, composed of leaders of all the major union affiliates, determine Federation policy between conventions. These sources contain the most complete statements regarding the policies and positions of organized labor in the United States.

cooperative effort to expand wealth for the purposes of mutual gain was largely scrapped by corporate capital three decades ago. Since that time an ongoing corporate assault on organized labor has caused even the most conservative union leaders to question cooperation with employers around alleged shared interests. Expanded economic globalization has created still more challenges for the US-based labor movement. The political dynamics associated with globalization have at times pushed labor away from employers and into the arms of the environmental movement, which also sees threats tied to the expansion of international capital mobility. At times this has led to labor-environmental alliance formation, a sign that labor's position on the treadmill may be changing (Audley 1995, Dreiling 1997, Obach 2002, 2004, Rose 2000).

This budding transformation may also be tied to changes in employment in the US economy. The decline in manufacturing has occurred in conjunction with a rise in service sector employment. The nature of service employment and the unions representing such workers have made for more environmentally friendly policy advocacy than that undertaken by some historically powerful unions. Fewer workers in the United States still have a significant stake in such ecologically destructive industries as coal or automobile production. Unions now represent far more workers in the labor intensive service and public sectors than they do in capital and energy intensive manufacturing or in extractive industries. In general, service sector unions have been more receptive to environmental protection and alliance building with the environmental movement. This is reflected in the strategies adopted by a new leadership at the national level of the labor movement. Renewed efforts at coalition building, including alliances with environmental movement organizations, are now underway.

Taken together these developments call into question labor's position on the treadmill of production. Unions have clearly been outspoken advocates of economic growth in the past, and to a large extent they continue to favor pro-treadmill policies today. Although labor's originally defined position within the treadmill of production framework is still suitable, their historical record includes some inconsistencies and recent social and economic changes provide cause to reexamine labor's overall role.

The Treadmill of Production

The treadmill of production framework was first introduced by Allan Schnaiberg in 1980. Utilizing the work of Marxist economists, Schnaiberg applied critical analyses of capitalism to examine environmental degradation. Central to his analysis is the competitive profit seeking dynamic inherent to capitalist economies. "Competition and the quest for profitability constitute the main construction materials for the production treadmill…" (Schnaiberg 1980, 230). This quest for profitability leads competing private firms to not only expand production, thus generating profit by selling more goods, but to also seek increased profitability through improved efficiency. The primary means by which cost savings are sought is through the replacement of human labor with more capital and energy intensive production processes. In most cases such processes involve the generation of more toxic pollutants. Thus, the competitive drive for profit involves more production, thereby more rapidly depleting natural resources, and more energy and chemical intensive processes, which introduce more destructive by-products into the environment.

While some have theorized that capital can play a role in the reform of its own practices based on ecological principles (Mol 1997, Hawken 1997), the treadmill of production framework and critical perspectives in general reject the idea that capitalists are capable of acting in ways that are not consistent with profit maximization (Faber 1998 O'Connor 1994, Schnaiberg and Gould 1994). The competitive pressure inherent in the structure of the capitalist system prevents any individual capitalist from adopting serious environmental reforms of the production process regardless of personal ideology. Competition punishes any producer who does not use the most profitable methods of production and the processes favored by such a system are rarely the most ecologically sound. In the short term at least, which is the framework within which most competitive enterprises are required to operate, depleting valuable natural resources and externalizing environmental costs are among the most lucrative practices (Daly and Cobb 1989).

Thus, capital plays the central role in propelling expanded production and employing ecologically harmful production practices, but the treadmill also necessitates the support of the two other central actors, labor and the state. These other social forces are required to embrace the treadmill ideology and to act in ways that perpetuate it's

functioning. Schnaiberg and his colleagues identify the central ideological positioning that all actors must assume, one which embraces "market values." "Thus the driving force behind this treadmill has been the growth in market value interests…Market values stand in stark contrast to use-values, which refers to people's biological and social needs outside of markets, such as subsistence (clean air and water, safe soil), cultural (e.g. open space), and recreational" (Weinberg, Pellow and Schnaiberg 2000, 34).

Once economic growth is accepted as a general good, all of the central actors fall into line behind capital to advance this goal. According to Schnaiberg and his colleagues, the political economy of the treadmill becomes entrenched through the construction of a political alliance of capital, labor and the state. "The post World War II political economy was held together largely by an implicit contract or compact. Private capital's need for a steady and reliable labor force and workers' need for jobs and their general satisfaction with unprecedented amounts of material gains led to a 'no strike' pledge with management. The state played its part by expanding public education in order to produce a higher quality labor force, while also expanding consumer credit to make sure that domestic demand for goods kept pace with the increase in production." (Weinberg, Pellow and Schnaiberg 2000, 34) [2].

Although capital is inherently tied to the treadmill system, contradictory impulses can be found in both labor and the state. The state clearly serves to advance the treadmill in many ways. As described above, they do so in ways such as improving worker productivity through education and ensuring demand by making credit available to consumers. The state is also charged with creating and enforcing the basic rules and policies that allow for market functioning, from the management of the Federal Reserve to the protection of private property. State expenditure on basic science is another key function that allows for the development of applied production technologies and new consumer goods (Schnaiberg 1980). Thus, the state carries out numerous direct treadmill-enhancing policies. But the state must also play a legitimation function

[2] Except during World War II there was no formal "no strike" pledge on the part of labor. "No strike" clauses were commonly added to negotiated contracts to prevent strikes for the duration of the contract period, but strikes during the period of negotiating a new contract were common. There was extensive strike activity immediately following the war and through the 1950s. Nonetheless, labor relations had in some sense stabilized. Strikes were an unexceptional aspect of the collective bargaining routine into which labor and management fell for the following three decades (Zieger 1994).

(O'Connor 1973). That is, the state must ensure that at least some of the material wealth generated by the treadmill is shared among members of society and that the worst failures of the system are not allowed to fester to the point of widespread popular resistance. Social welfare programs, minimum wage laws, environmental regulation and the provision of basic public services are all policies that allow state actors to maintain popular support among a critical mass within society.

While such legitimating policies can be seen as necessary to the maintenance of the overall treadmill system, in some ways such policies conflict with the market values that underlie the treadmill (Schnaiberg and Gould 1994). Every dollar spent on labor intensive public services is a dollar that is not reinvested directly into expanded production; every environmental measure potentially prohibits the implementation of the most "efficient" productive process; every dollar doled out through social welfare programs is one that has been taxed away from its potential use by capital. Of course, some of these public expenditures can be reinterpreted as treadmill promoting policies via other means. As suggested above, public education can be seen as an investment in worker productivity as opposed to a non-treadmill social good designed to increase the quality of life for individual citizens or to enhance democracy. One might also focus on the fact that resources redistributed through the state are ultimately spent in the market, thus powering the treadmill through expanded demand. Yet, at the very least, some state policies can be seen as slowing the treadmill in that they are not facilitating the most direct means of expanding production. "[R]evenues allocated to social expenses are not directly available to reinforce the capital accumulation portion of the treadmill. Thus, there is an apparent tradeoff between supporting treadmill growth and responding to social needs" (Schnaiberg and Gould 1994, 109).

Schnaiberg acknowledges that the state at least has the potential to challenge the economic growth system. "One of the best mechanisms for decelerating the treadmill would appear to be the prohibitionary powers of the state. Regulation of negative externalities –from unemployment to resource depletion—is theoretically in its power." (1980, 244). He goes on to assess the conditions necessary for the state to truly challenge the logic of the treadmill. "If the treadmill is to be slowed and reversed, the central social agency that will have to bring this about is the state, acting to rechannel production

surplus in non-treadmill directions. But the state can only do so when there is both a sufficient crisis of faith in the treadmill, and sufficient political support for production apart from the treadmill. To date, this combination does not exist in the advanced industrial societies like the United States." (1980, 249).

In identifying the need for political support in order for the state to reverse treadmill policies, Schnaiberg is affirming what many Marxists have concluded about the state, that it should not be considered an independent actor (Poulantzas 1969, Miliband 1983). Although it is important to recognize and to analyze the role of the state in the treadmill system, most critical theorists have concluded that the state is at best an arena of struggle among other social forces and at worst a tool of the ruling class (Schnaiberg and Gould 1994). Few consider the state to have the capacity to act autonomously. While it is possible to identify the independent interests of some state actors, in democratic or semi-democratic systems, securing those interests is tied to satisfying some non-state constituency. If state actors cannot act independently to challenge the treadmill system, the question then becomes one of which social actors are capable of pressuring the state to adopt the needed reforms.

Within a pluralist framework it is possible to identify numerous constituencies all seeking to shape public policy, some of which favor programs that challenge the treadmill. The environmental movement could be considered one of many "interest groups" attempting to influence the state. But, from a Marxist perspective and within the framework of the treadmill, such actors are often considered to be marginal players in a system that is best understood in class terms. The environmental movement has made some gains, especially in terms of raising public awareness about environmental problems (Dunlap and Mertig 1992, Jones and Dunlap 1992). Yet widespread support for environmental protection is not reflected in policy. The biggest successes that the environmental movement has achieved have been in the areas of clean up and in mitigating environmental destruction. Some preservation measures have also been implemented, but little has been done to actually change production processes in ways that protect the natural environment (Foster 1999, Gottlieb 2001, Gould and Schnaiberg 1994).

It is unlikely that an independent, largely voluntary, foundation- and member-funded environmental movement can challenge the entrenched treadmill system. Effective resistance to the treadmill will likely have to come from one of the actors that make up the system itself. Given that capital, by nature, must advance the treadmill in its quest for profit, and that the state is only capable of acting in response to political pressure, in the search for actors who could potentially serve as a political force capable of challenging the treadmill, we must turn our attention to labor.

Labor's Historical Role on the Treadmill

To the extent that unions are capable of securing a share of the growing wealth generated by the treadmill for their members, workers have a material interest in expanding production. But the interests that unions represent are not monolithic. In many ways, unions have long acted to advance the general well being of the working class and society as a whole. While that has included treadmill advocacy, it has also included support for policies that challenge the treadmill of production. A review of labor's role historically will reveal some of these contradictory tendencies. We can then assess the extent to which a shift is occurring whereby labor's role is moving further in the direction of treadmill opposition.

Speeding the Treadmill

Organized labor's role as the perpetuators of the treadmill system can be seen in at least three ways; through collective bargaining, through political advocacy and as an ideological force.

In terms of collective bargaining, American unions have powered the treadmill by making material gain for their members the focus of their efforts, a strategy known as "economism." While prioritizing material benefits for unionized employees, union leaders often neglected other workplace concerns and issues that would have benefited workers as a class (Aronowitz 1998, Gottlieb 1994, Zieger 1994).

Several historical and structural pressures have facilitated this narrow approach. The craft union tradition of advancing worker interests through the monopolization of particular skills, though rooted in the 19th century, made an indelible mark on the

American labor movement. Although the industrial unions of the Congress of Industrial Organizations challenged the strategy advanced by the skilled craft unions of the rival American Federation of Labor by organizing unskilled workers, ultimately the "business union" approach of the AFL became dominant throughout most industries. In this model, the union's role is simply to service members by securing benefits, primarily increased wages, in exchange for dues payments that allow for the maintenance of the organization.

Broader class-based efforts were further undermined when labor leaders firmly embraced the Cold War mentality of the post war years (Aronowitz 1998, Brecher 1997, Zieger 1994). This led to the purging of communists and other radicals who advocated for a more encompassing class based strategy. In addition, structural features of the US political and labor relations systems encouraged a narrow labor agenda (Obach 2004). Only certain issues were formally recognized as legitimate collective bargaining topics. Wages, hours and working conditions were identified as the only mandatory subjects for bargaining, but even within that limited framework, wages and other forms of compensation were typically given priority over hours and working conditions. The absence of a labor party, the decentralized, competitive nature of the labor movement in the US and the lack of any formal mechanisms for co-determiniation or corporatism all favored a strategy in which individual unions would focus on material gains for their own members as opposed to challenging production processes or the broader workings of the capitalist order (Yates 1998). With material gain as the central focus, unions became ardent advocates and perpetuators of the treadmill system, a system that held out the promise of improved material living conditions for unionized workers, and which, in many cases, delivered just that.

Wage demands served to speed the treadmill in a number of ways, the most important of which were by creating consumer demand and by advancing technological innovation. Wage demands and relatively high rates of pay serve as the primary incentive for employers to devise labor-saving strategies, including the development of more energy and chemical intensive technology (Freeman and Medoff 1984). Low wage sectors are much slower to improve productivity in this manner, given the lack of wage pressure. In addition to fostering technological development, higher wages also created a consumer market for the goods that were being produced without which capitalism may

have collapsed in a crisis of oversupply. High wage union workers were able to absorb that surplus production and further perpetuate the cycle of economic expansion.

Of equal importance to labor's role at the bargaining table is the role that unions played in the political sphere. Unions have long been the primary vehicles for the advancement of worker interests through government policy. Political advocacy is primarily carried out through the federated organizations to which individual unions belong. These include regional and state level organizations along with the national American Federation of Labor-Congress of Industrial Organizations (AFL-CIO). At the federation level, labor's advocacy is focused more on the general concerns of the labor movement and even the working class as a whole, as opposed to the particular interests of individual unions. But despite rising above the narrow interests of the membership of a single union, for much of the twentieth century the political agenda of the labor federation at all levels still tended to echo the material focus advanced by individual unions around the bargaining table. Rather than propelling the treadmill through greater consumption, as allowed by higher wages secured through collective bargaining, at the federation level, labor sped the treadmill by advocating pro-growth macro-economic policies. A review of AFL-CIO convention proceedings, executive council statements and legislative agendas reveals their ardent support for rapid economic expansion. This statement issued by the AFL-CIO Executive Council in 1960 captures the essence of organized labor's position on economic policy during the decades following World War II;

"…we have stressed the basic importance of steady economic growth. It is not an exaggeration to say that this is at the very heart of our program…We believe it is the obligation of government, and especially the federal government, to provide whatever stimulus is necessary to bring about the rate of growth we need." (Fink 1977, 583)

At times labor could be seen as more adamant about pro-growth economic policies than capital itself. Labor leaders were extremely critical of government policies designed to stabilize the economy and protect the long-term viability of the system. Even relatively low levels of unemployment were seen by labor advocates as grounds for more rapid economic expansion in order to reach the elusive full employment economy. In most cases labor's insistence on economic growth was directly tied to alleviating

unemployment and poverty. But there was also a clear endorsement of the consumerism so essential to treadmill functioning as in this 1959 AFL-CIO statement on "Growth in the American Economy":

"Consumer markets must be expanded through substantial improvements in the buying power of American families…A decisive shift in government and business policies is urgently needed…to increase the pace of national economic growth to 5 per cent a year." (AFL-CIO 1959)

This 1964 call for federal housing development aid also demonstrates conscious strategizing about propelling the treadmill and labor's embrace of consumerism:

"Construction of new housing…serves as a most powerful generator of other economic activity by creating expanding markets for a wide range of manufactured products, building materials, furniture and furnishings, to such consumer durables as refrigerators, air conditioners and vacuum cleaners." (Fink 1977, 1224 [1964]).

The Labor Federation's advocacy of economic expansion was consistent with the economism strategy carried out at the collective bargaining level. Overall economic expansion was necessary (although not sufficient) for achieving labor's goal of improved living standards and full employment. The AFL-CIO's political strategists pressured relentlessly for policies designed to facilitate economic growth, including policies that posed direct threats to the natural environment. In offering their perspective on the development of supersonic transport in 1970 the AFL-CIO acknowledged "reservations about the possible effect supersonic flight might have on the earth's environment" yet they endorsed its development due to the competitive threat posed by European aerospace manufacturers stating, "The United States cannot afford to be left in the lurch." (Fink 1977, 2045 [1970])

The AFL-CIO was also an adamant advocate for the "rapid and widespread development…of atomic energy" (Fink 1977, 384 [1956]) as well as other environmentally threatening policies. The labor federation consistently supported major hydro-electric projects in wilderness areas, thus "harnessing our river system for every possible beneficial use" (Fink 1977, 522 [1956]). In addition to supporting the rapid development of the nation's energy infrastructure and other federally subsidized economic activity, on occasion environmentally favorable policies were opposed on the

basis of protecting specific employment sectors. Bottle bills are a prime example from the 1970s and 1980s. The effort to reduce waste through bottle deposit legislation was viewed as a threat to unionized workers in the brewing and can making industries (Obach 1999). Labor opposition to forest protection measures was another common source of conflict with environmentalists in the 1980s and early 1990s. While occasionally expressing support for resource conservation or measures related to environmental health and safety (see below), the labor movement's political agenda for most of the twentieth century is best characterized as decidedly pro-treadmill and at times explicitly anti-environmental.

The AFL-CIO's political advocacy centered on economic growth and the presumed rise in living standards associated with economic expansion, thus providing a logical pro-treadmill compliment to labor's collective bargaining position. But organized labor simultaneously played an important ideological role in perpetuating the treadmill. Regular calls by labor leaders for the continual expansion of production offered the ideological benefit of presenting the treadmill as desirable, not just for the elite few who own the means of production and control investment decisions, but for the general public. With labor's help, the expansion of production was not viewed as desirable just for the riches it would bring to the owners and controllers of wealth; it was desired because it would alleviate poverty and allow ordinary working people to enjoy a decent standard of living free from want.

The general rhetoric of economic growth as a public good was reinforced by organized labor's vehement anti-communist ideology. During the Cold War period labor leaders peppered their growth arguments with anti-communist rhetoric that made economic expansion not only a moral quest to alleviate poverty and unemployment, but an essential guard for democracy in the face of "the communist threat." The Executive Council of the AFL-CIO issued a statement in 1960 in which it claimed that a decline in economic growth would "enable the Communist world to overtake us in both military might and material resources" adding "With an adequate rate of economic growth we need not fear any force, without it, we will rob democracy of its sinews" (Fink 1973, 583 [1960]).

Thus, in all three ways, through collective bargaining, in their political advocacy and as an ideological force, labor played an active role advancing the treadmill of production. It is these roles that validate the claim that organized labor is a central actor in the perpetuation of economic growth and the corresponding environmental degradation that define the treadmill. Yet, given these obvious contributions to the speed of the treadmill in the post war decades, labor's role, even during this period is more complex than it would appear. Thus, an examination of countervailing tendencies must also be considered.

Slowing the Treadmill

While speeding the treadmill in some regards, in other ways labor's role has simultaneously served to slow the treadmill of production. This occurs in essentially four ways. First, at the workplace and around the bargaining table, unions would routinely slow production though efficiency limiting work rules and opposition to automation. Second, at the government policy level unions often favored the diversion of resources towards social programs that were not optimally geared toward economic expansion. Third, unions made continuous calls for a shortened workweek, a demand that can be seen as part of a larger counter-hegemonic ideology. Lastly, unions have in several instances advocated for environmental protection, usually in association with workplace health and safety, but at times on the basis of community health or for the sake of the environment itself. Each of these issues will be given consideration in order to assess the net effect of labor's role on the treadmill throughout the twentieth century.

Although the high wages demanded by union workers created an incentive for employers to adopt labor saving technology, unions long advocated against automation and its associated social disruption. Throughout the 1950s and 1960s the AFL-CIO routinely passed resolutions that questioned the benefits of automation and demanded government action to address the issue and its social consequences. While never explicitly calling for direct restrictions on technological change, labor leaders were vocal about the social risks associated with technological development. In his address to their Fifth Constitutional Convention in 1963, AFL-CIO President George Meany warned of these dangers:

"(Automation) is rapidly becoming a real curse to this society…this is a real threat. This could bring us to a national catastrophe. Every big corporation in America is in a mad race to produce more and more with less and less labor without any feeling as to what it may mean to the whole national economy" (AFL-CIO 1963, 31-32).

A 1965 Resolution more directly questioned the logic of the market driven technology treadmill, stating "the application of new technology to the fullest extent, as rapidly as possible, with a view only to higher profits is open to serious question. Radical technological change can do irreparable harm if its pace and character are determined by market forces alone." (AFL-CIO 1965, 384)

In terms of actual public policy, union leaders for the most part advocated for retraining or compensation for workers displaced by labor saving technology (which would ultimately increase the costs of such productive improvements and discourage their implementation). This was the most unions could hope for in the political sphere as lawmakers were loath to involve themselves in the management of business enterprises. But the detailed work rules, job classifications and seniority systems secured through collective bargaining would commonly hamper employer's efforts to reassign workers or eliminate the incentive to do so even given the availability of more efficient technologies or workplace organization (Zieger 1994). According to labor historian Robert Zieger, despite the general acceptance of management prerogative regarding control of the work process, "Informal shop practices, skillful union bargaining, and the ever-present threat of slowdowns, work-to-rule campaigns, and wildcat strikes gave workers a real, if sometimes informal, voice in shop-floor control" (1994, 157). In this way unions restricted the ability of employers to manage in ways that would maximize productive efficiency, thus crediting labor with a role in slowing the treadmill.

The second area in which labor can be seen as slowing the treadmill is through their advocacy for social policies that divert resources away from productive reinvestment. Unions are among the chief advocates for public programs such as social security, education, welfare, housing and health care. The net effect of such programs on the speed of the treadmill is debatable (Schnaiberg and Gould 1994). One could argue that these legitimating policies enacted by the state under pressure from labor serve to protect the overall treadmill system thus, generating more environmental devastation in

the long run than would occur if social crises led to a full scale dismantling of the system. Another argument would be that the state is maximizing productive efficiency by, for example, providing capital with more productive workers through education programs or by sustaining the "reserve army of the employed" for use when the business cycle necessitates an infusion of labor ready workers.

But the notion that the mix of policies successfully secured as a result of popular pressure and labor mobilization somehow yield the maximum in terms of long term productive efficiency is highly dubious. It is difficult to see, for example, how the diversion of substantial funds to the elderly through the Social Security system, a system long championed by organized labor, is a productivity maximizing policy. We can at least conclude that the diversion of resources into such programs is sub-optimal in terms of productivity and profitability (Schnaiberg and Gould 1994).

To the extent that these programs are even viewed as necessary, representatives of capital tend to favor the privatization of such services on the grounds that competition within a market system increases efficiency. This stands in contrast to the publicly administered approach favored by labor advocates. Although the motivations behind the positions advocated by segments of both labor and capital may at times be more narrow than their public pronouncements suggest (ie: unionized carpenters who support federal housing projects for the jobs it will create or security firms angling for lucrative prison privatization contracts), on the whole it is safe to conclude that the social policies advanced by the labor movement yield social benefits that necessitate the redirection of resources away from their optimal use in terms of maximizing material production. In regard to social policy, therefore, labor has been the leading voice in slowing the treadmill of production.

In addition to advancing social policies that benefit the working and middle classes, unions have also been the chief advocates for the interests of the unemployed. The unemployment insurance system is among those social policies long advocated by labor representatives. Another policy advocated by organized labor in an effort to address unemployment was the shortened workweek. In 1937 workers won the 40-hour workweek, but the call by unions for still fewer hours was continuously heard throughout most of the twentieth century. While primarily cited as a means to increase the demand

for labor, and thus reduce unemployment, unions were also demanding more leisure time for all workers. As described above, unions did advance consumerism and saw increased material wealth as a fundamental basis for an improved quality of life, but there was also considerable attention given to the need for leisure and time away from work. A 1959 Resolution passed by the AFL-CIO expresses these values:

"Shorter work hours are …extremely valuable for non-economic reasons…Socially and morally it is desirable that part of our progress be taken in reduction of the hours each worker is required to labor. A shorter work week would enable greater opportunity and incentive for broadened social and cultural pursuits and development of bettered family life" (AFL-CIO 1959, 639).

In advancing this goal unions were not only seeking a policy change, but they were also offering an ideological counterpoint to the treadmill that they commonly touted. Capital was in full agreement with labor's desire for more material consumption and they obliged by investing billions of dollars in marketing programs designed to induce the growing middle class to spend their disposable income on all manner of new commodities. But the demand for leisure was not consistent with this effort, and in this way unions were injecting a radical anti-treadmill voice into the national psyche. Granted, this goal was never at the forefront of labor mobilization and beyond securing the 40-hour workweek and some bargaining gains in relation to breaks and vacation time for unionized employees, labor's call for leisure was largely drowned out by the chorus of consumerism.

Another largely overlooked dimension of labor's treadmill-slowing role is that of environmental advocate. Before the rise of the contemporary environmental movement in the late 1960s and 1970s, organized labor served as perhaps the nations most significant voice in favor of environmental protection (Dewey 1998, Gottlieb 1994). Much of this environmental advocacy took the form of health and safety protections both at the workplace and in the community. Some of this labor environmental advocacy dates back to the early twentieth century. Yet, as chemical intensive technologies were increasingly put into place following World War II, unions stepped up their demands for workplace environmental safety. The AFL-CIO was calling for greater protection against

"industrially induced cancer" years before Rachel Carson alerted the general public to the dangers of toxic chemicals through her publication of *Silent Spring*.

Consistent with the work rule issues cited above, the health and safety measures demanded by labor advocates reduced efficiency by imposing work rules and capital investments that did not add to productivity. But the demands of unionists went beyond workplace safety to include the protection of the broader natural environment. The AFL-CIO passed numerous resolutions beginning in the 1950s in which they demanded federal action on clean air and water. At times these demands were tied to job creation interests, such as the employment to be generated through the construction of sewage treatment facilities, and in many cases the policies supported by unions were of the end-of-the-pipe pollution control variety that did not fundamentally challenge the treadmill. Nonetheless, such measures redirected resources towards more environmentally sound practices than would have been the case had the treadmill been left completely in the hands of industry owners.

While workers did stand to benefit directly in terms of health or job creation from some of these treadmill-slowing policies, unions also at times advocated for policies designed specifically for environmental protection. Couched in the discourse of resource conservation, labor leaders commonly demanded policies that protected natural areas from over-exploitation. As early as the 1950s labor leaders warned of the rapid depletion of forests, fresh water and soil and demanded a federal natural resource policy and the comprehensive adoption of sustainable forestry practices (Fink 1977 [1959], AFL-CIO 1959, 250)

In addition to the conservation of resources, the AFL-CIO also called for the preservation of wilderness in order that the working class could enjoy a spiritual bond with the natural world. In 1961 the Executive Council issued a statement regarding the need for workers to have access to natural areas:

"The increasing mechanization of industry has reduced for millions of workers the satisfaction they once received from their labor…They must of necessity seek more of their life satisfactions in alternative ways…our ability to realize our full potential has been made more difficult by the increase in population, growing urbanism…the tendency

to overcrowd the land with the resulting elimination of open spaces for public use" (Fink 1977, 693 [1961]).

The AFL-CIO endorsed the creation of a federal wilderness preservation system and greater protection for remaining wild areas. Wilderness preservation and resource conservation were typically justified on the basis of the benefits such policies would have for the economy, the working class and society as a whole. There is no evidence of any more eco-centric sentiments on the part of labor. Nonetheless labor's advocacy for the environment was significant for its time.

With the rapid growth of the contemporary environmental movement in the early 1970s, labor's environmental advocacy and the incidental alignment of labor interests with that of the environmental community led to a number of cooperative efforts (Gordon 1998, Gottlieb 1994, Kazis and Grossman 1991, Obach 2004). In fact, despite several high profile instances of labor-environmental conflict, some research suggests that relations have always been better than they appeared (Obach 2002). The AFL-CIO supported environmental advocates on some landmark environmental legislation such as the Clean Air and Clean Water Acts. In the 1980s unions and environmentalists also united in opposition to the Reagan Administration, which sought to reverse numerous worker and environmental protections. The 1980s also brought significant political alliances in states around the US and at the national level in favor of "right-to-know" measures designed to inform workers and communities about the hazardous substances being used in production (Obach 1999, 2004). Job generating environmental restoration projects also commonly brought labor support at the national and state levels. Although union cooperation with environmentalists was often based on non-environmental sentiments, these ties would prove to be important to the further development of labor's approach to these issues. Some labor leaders have reported that their experience working with environmentalists on issues of incidental interest overlap increased their awareness of the significance of environmental issues in their own right (Obach 2004). As will be discussed, this is crucial for understanding labor's changing role on the treadmill.

On the whole, labor's record in relation to environmental protection is mixed. In several ways, some intentional and some unintentional, labor's practices and the policies

for which they advocate have had the effect of slowing the treadmill of production. Yet, given their militant support for economic expansion, on balance, labor is rightfully considered to be among those who speed the treadmill. For most of the twentieth century organized labor has seen their interests as tied to those of capital at least in terms of their support for continuous economic growth. The question with which we are now presented is, 'is the role of labor changing in regard to the treadmill of production?' In the following section I examine several trends that suggest that the balance of labor's effects are shifting in the direction of slowing the treadmill.

New Labor: Slowing the Treadmill?

There are several factors that indicate that organized labor is shifting its stance in regard to environmental protection, its ties with the environmental community and its relationship with capital. Each of these suggests labor's changing role on the treadmill of production. While the forces that have shaped labor's role in the United States are complex, much of the shift that we are now witnessing can be traced to events that picked up momentum in the early 1970s.

The post war years, while far from peaceful in terms of labor relations, were characterized by a routinization of labor-management interactions. Pattern bargaining in the "primary" economic sectors such as auto and steel manufacturing involved occasional strikes but on the whole, the rapid economic growth of the 1950s and 1960s allowed for substantial profits for employers while simultaneously increasing wages and standards of living for their employees (Aronowitz 1998, Freeman and Medoff 1984, Yates 1998, Zieger 1994). Despite some actions that slowed the treadmill, as discussed above, organized labor played the role of an enthusiastic cheerleader for rapid economic growth throughout this period. However, a severe recession in the 1970s, combined with increasing competitive pressure from foreign owned firms, led capital to alter the relationship that had developed between them and labor over the preceding two decades. In an intensified effort to protect profits in the face of the recession, capital sought to reduce labor costs. This strategy developed over the following years and took different forms.

One manifestation of this was a strident anti-union offensive. Many employers sought to create a "union-free" environment by eliminating existing unions and preventing new ones from forming. The success of this effort was exemplified by the failed air traffic controllers strike of 1980. Considered by some to be a major showdown in the battle between capital and labor that grew during the 1970s, striking air traffic controllers were fired by the newly elected President Ronald Reagan in 1981. This was a harbinger of what was to come in the following two decades. Reagan's actions not only represented a major victory for employers over the labor movement, but it signaled to employers throughout the nation that the "post-war labor accord" was dead. Unions were shown to be vulnerable and the acceptance of profit sharing in the form of wage increases was no longer desirable or necessary from the perspective of employers.

During this period employers devised increasingly sophisticated strategies to decrease or eliminate their unionized labor force and to prevent new unions from forming (Human Rights Watch 2000, Yates 1998). A new breed of labor consultants advised employers on how to manipulate the labor relations system, bending and at times even breaking the law to prevent unionization. Capital also sought to use legislation to undermine union rights. Through organizations such as the Business Roundtable and the National Right to Work Committee, capital advanced legislation that would weaken the labor movement. Private employers, along with the representatives elected with their support, also pushed for the privatization of public services, an effort designed in part to shift the work of unionized public employees into the non-union private sector. The consequences of these efforts can be seen in the declining rate of union density over this period. The percentage of the unionized workforce dropped from a high of roughly 24 percent in 1973 to roughly 13 percent today. The extent of the decline in private sector unionization is masked by gains that were made in the public sector throughout the 1970s. In the private sector fewer than nine percent of workers are currently unionized. While automation in the highly unionized manufacturing sector can account for some of this decline (union density in private manufacturing employment went from 39 percent in 1973 to 14 percent today), anti-union strategies that employers adopted in force during the 1970s and 80s took a heavy toll in terms of preventing labor from recouping its losses in other sectors.

Another prong of capital's wage lowering strategy was to advance trade liberalization policies. Economic liberalization allowed mobile capital to relocate abroad to take advantage of lower wages and weaker regulation while also using the threat of capital flight as a wedge to demand union givebacks and to drive down wages at home (Bronfenbrenner 2000). Employers had long used domestic mobility as a means to coerce wage moderation from workers in unionized regions of the country, but international capital mobility greatly expanded the pool of available labor (Brecher and Costello 1994).

The actual movement of capital abroad has been most evident in the manufacturing sector and this has had important ramifications for the labor movement in the United States. In addition to the overall decline in the percentage of unionized employees, the disproportionate shift of manufacturing jobs has contributed to a new membership configuration within organized labor. Relative to the once larger and more powerful industrial sector unions such as the United Autoworkers and the United Steelworkers, the service sector unions have grown considerably. The Service Employees International Union, the National Education Association and the American Federation of State, County, and Municipal Employees are now among the largest unions in the nation.

The decline in manufacturing and the corresponding shift towards service sector employment has significant implications for organized labor's relationship with the environmental community. There are now far fewer unionized employees who can be targeted with the jobs-versus-the-environment argument that employers commonly deployed to win labor's support for anti-environmental, pro-treadmill measures (Buttel, Geisler and Wiswall 1984, Kazis and Grossman 1991, Obach 2002, 2004, Rose 2000). It has always been the case that environmental protection is a net job generator, even for the industrial sector, but employers commonly cite the threat of job loss when faced with costly environmental regulations (Goodstein 1999, Meyer 1992, OECD 1997). In many cases this proved to be an effective tool for persuading labor to oppose environmental protection policies and secured their capital-allied position on the treadmill.

While the bogus job loss threat was often effective for persuading blue collar unionists to side with their employers against environmental measures, environmental

protection is more clearly beneficial to workers in the service sector. This is true not only for the general benefits derived from community environmental health, but also due to the potential service sector job gains resulting from environmental regulation. Environmental policies in many cases directly increase public employment, but environmental preservation can also aid tourism or attract other service sector industries drawn by the quality of life associated with sound environmental policy (OECD 1997).

Other strategies used by employers to challenge organized labor also served to drive even industrial workers into the arms of the environmental community. After several decades of decline in manufacturing employment, some union leaders began to recognize that employers, not environmentalists, were most responsible for job loss. Ongoing automation now accompanied by capital flight towards low wage nations left the manufacturing workforce decimated and cynical. While this desperation has been used effectively by employers to extract further concessions from workers in some cases, it has also made the effects of economic globalization vividly clear. Unionists have thus found common cause with segments of the environmental community who see trade liberalization as a means for employers to avoid not only high wages, but also strict environmental regulation (Dreiling and Robertson 1998). The migration of some of the most polluting industries towards nations with weakly enforced environmental standards offers evidence of the environmental consequences of globalization (French 2000).

The international "race to the bottom" engaged by nations seeking to accommodate an increasingly mobile capital with lower wages and weaker regulations has fostered more labor-environmental alliance building. As with many previous cases of cooperation, concerted action on trade liberalization can be seen as a marriage of convenience for movement sectors with distinct concerns. Yet there is growing evidence that in the course of building on these instrumental relationships, closer ties between key labor and environmental actors have grown and more commonalities have been identified. This national development is consistent with several local and state struggles. Instrumental cooperation can lead to strengthened network ties between labor and environmental actors. This interaction allows for consciousness raising on both sides about one another's issues and concerns. These concerns can, at times, then lead to a broadening of organizational agendas which then allows for still more cooperation.

Examples of this phenomenon have been documented in Wisconsin, Maine and in King County in Washington State, all places in which there has been significant labor-environmental cooperation (Rose 2000, Obach 2004). While there has been interaction between national union and environmental leaders in various contexts in the past, the confluence of economic and political developments that we are now witnessing may allow for a this pattern to play itself out at the national level at this historical juncture.

New labor leadership at the national level has also fostered alliance building between unions and environmentalists. In 1995 the AFL-CIO held its first competitive presidential election in the history of the Federation. John Sweeney, the president of the Service Workers International Union, was elected to lead the Federation as part of the "New Voices" slate that challenged the traditional labor establishment. Sweeney's election was the culmination of growing discontent towards what was viewed as an acquiescent labor establishment that failed to challenge corporate policies that had proven detrimental to the labor movement during the previous two decades (Aronowitz 1998). Sweeney introduced a number of reforms designed to reinvigorate the moribund labor movement including an increased focus on organizing and expanded alliance building efforts with community groups and environmentalists.

Under the auspices of the AFL-CIO a series of meetings between national labor and environmental leaders were held in an effort to construct a common agenda that advanced the interests of both workers and the environment. Although some unions, which are embedded in industries that rely on the worst forms of treadmill production, such as the United Mineworkers, resisted concessions to the environmental community and undermined the Federation's effort, other unions have shown greater willingness to challenge environmentally unsound practices. For example, a coalition of unions and environmental organizations including the United Steelworkers District 11, the Service Employees International Union, the Union of Needletrades, Industrial and Textile Employees along with the Sierra Club, the Natural Resources Defense Council and others have formed the Blue Green Alliance to combat global warming. Union support for the joint program is significant in that it backs a plan that acknowledges the potential for job loss. Unions have also departed from the economic growth program on other issues. Several unions, including the United Auto Workers and the Communications Workers of

America joined with the environmental community in opposing the development of oil drilling in the Alaskan National Wildlife Refuge (ANWR) (Greenhouse 2001). This support for environmental protection at the risk of traditional treadmill benefits indicates a departure from past union practices.

Although unions have offered support for environmental causes in the past, structural changes in the economy suggest that labor will be increasingly drawn towards the environmental community and that their position in support of the worst treadmill practices will continue to diminish. Each of the factors outlined above, a growing pro-environment service sector, a diminishing industrial sector that sees globalization, not environmental regulation, as its greatest threat, and new labor leadership that is more willing to confront employers and which views alliance building with the environmental community as a priority, all indicate that organized labor is moving in the direction of support of policies that slow the treadmill of production. We can add to this the cohort effect that is taking place within the labor movement and throughout the rest of society (Rose 2000). Young leaders are moving into positions of union power as the aging old guard retires. This new generation of labor leaders was shaped by the experiences of the 1960s and 1970s, a period during which awareness of environmental problems became widespread, as compared to the consumerist Cold War period during which the previous generation of leaders came into power.

There is clearly evidence that labor is increasingly willing to slow the treadmill of production, yet this shift should not be overstated. On many environmental issues there are unions who still side with corporations in support of traditional treadmill goals. For example, the Teamsters and the Building Trades actively supported the ANWR drilling proposal and the Autoworkers opposed the most recent effort to improve fuel economy standards (Alvarez and Kahn 2001, Associated Press 2002). In addition, part of labor's willingness to cooperate with the environmental community is not a result of changing sentiments among unionists, but rather it stems from changes within the environmental movement itself. Mainstream environmental organizations have modified their goals to accommodate those with economic concerns. Few voice support for an explicitly anti-treadmill "zero-growth" economy, a position that was not uncommon in the early years of the contemporary environmental movement (Audley 1995). The corporate discourse of

"jobs-versus-the-environment" proved to be an effective means of drawing worker support away from environmental advocates, forcing environmentalists to rethink their strategy in relation to the economic impact of environmental measures (Kazis and Grossman 1991, Obach 2004). Corporate and elite influence within the mainstream environmental organizations, especially in terms of funding, has also resulted in a moderation of environmental demands (Dowie 1995).

These pressures have resulted in an environmental agenda that in most cases does not threaten the basic structure of the treadmill of production. Regulatory demands are often watered down on the basis of potential economic impacts and market based environmental policies consistent with the neo-liberal agenda are commonly touted by environmental advocates (Dowey 1995, Hawken 1997). Environmental leaders rarely question the need for economic growth and instead seek conservation measures and the use of new technology that will allow economic expansion with a minimum of resource use and pollution. Thus, in some ways the environmental movement itself has become part of the treadmill, albeit, one that slows or redirects the most ecologically harmful practices. In this light, labor's cooperation with the environmental community and their endorsement of certain environmental measures may not be that radical a departure from traditional treadmill support.

Nonetheless, there are signs that some change has occurred in terms of labor's unconditional embrace of treadmill policies. The most recent example can be seen in a labor proposal for a significant federal energy research program known as the Apollo Project. This proposal, developed by the Steelworkers, the SEIU, the Electrical Workers and the United Mineworkers among others, calls for research and development of environmentally sound energy systems such as those based on wind and solar power and greater energy efficiency in everything from appliances to factory production. Carl Pope, the executive director of the environmental group, the Sierra Club, and a long time advocate for labor-environmental cooperation, expressed enthusiasm for the labor initiative. "We are very, very excited. It is not that any of these ideas are radically new. What is radically different is the commitment on the part of a huge segment of American organized labor to organize the rebuilding of blue-collar America around modern environmentalism and sound energy technology" (Greenhouse, 2003, A20). The

associated unions designed the Apollo Project independently, but the ties that several of these unions have developed with the environmental community no doubt facilitated this new thinking. Closer ties with the environmental community will likely generate further rethinking of the relationship between environment and economy on the part of organized labor. Few labor leaders now unquestioningly accept employer claims about job threats posed by environmental measures, thus removing a central barrier to labor-environmental collaboration. This type of collaboration may allow for consideration of more policies that truly challenge the treadmill system.

Labor appears to be moving towards the incorporation of environmental sensibilities into its program, yet, several treadmill scholars have cited the need for a transformation of consciousness within *both* the labor and environmental movements (Foster 1993, Schnaiberg and Gould 1994). According to Schnaiberg and Gould,

"One reason why the movement is apparently unable to limit the expansionist tendencies of the treadmill is the environmentalists' conspicuous failure to link their ecological agendas with the socioeconomic needs of workers, minorities and the poor…to achieve coalitions with any other partner, environmentalists must modify the primacy of strictly environmental protection goals and negotiate with the social and economic agendas of other partners" (1994, 160).

There are signs that a shift can be seen within the environmental movement in regard to labor issues. Although some environmental advocates have attempted to address economic concerns by simply moderating their regulatory demands or by embracing market based policies, thereby accepting the trade off myth or succumbing to the neo-liberal agenda, others have sought more economically just solutions. The environmental justice movement is often touted as the force that best incorporates concern for social equity and environmental sustainability (Bullard 1993). Many hold out hope that this grassroots movement will lead the march against the treadmill of production. While the loose collection of organizations that make up the environmental justice movement have scored some important victories, it is doubtful that this assortment of mostly local organizations composed of traditionally disenfranchised groups will, by themselves, amass the power to threaten the treadmill system (Gould, Schnaiberg and Weinberg 1996). As discussed earlier, without the defection of one of the central

treadmill actors, there is little hope for seriously challenging the status quo. Environmental justice organizations have developed ties with organized labor in some local struggles, but perhaps the greatest contribution from the environmental justice movement is in fostering new approaches within the mainstream national environmental organizations (Dreiling 1998).

Several of the mainstream environmental groups were forced to respond to charges lodged by the environmental justice community that the mainstream organizations failed to adequately address social concerns. In doing so, some adopted approaches that increased opportunities to cement ties with organized labor. One such group, the Sierra Club, is now strategizing about how to broaden its agenda to fully incorporate social justice issues. Dan Becker of the national Sierra Club explains his organizations goals in this regard,

"…if we are successful, pro-labor positions will be part of our agenda…we will favor things that we have not been in favor of before. For example, the Abandoned Mine Reclamation Act provides hundreds of millions of dollars to repair abandoned mines in Appalachia, something we never really worked with. Now we are going to work on it, and we are going to hope that it provides jobs for coal miners who have lost their mining jobs. And those are going to have to be union jobs. It will be an environmental position that the Sierra Club advocates. As we advocate more money for solar rooftops, renewable energy, those should be union jobs. Those should be represented workers putting in those solar panels, and those are good Building Trades jobs…it isn't limited just to NAFTA…it extends to global warming and other issues…things that have not been traditionally environmental issues, like making sure that a job is a union job, or guaranteeing the right to organize…these are now Sierra Club positions" (personal communication 1999).

The extent to which mainstream national environmental organizations will be capable of expanding their agendas further into the realm of social justice is yet to be seen. In the past such efforts have raised questions about the risk of losing credibility on "purely" environmental issues (Gottlieb 1994). Some analyses suggest that organizational maintenance needs impose strict limits on the ability of non-profit member and foundation funded movement organizations to adjust their agendas (Obach 2004). But as labor moves to offer new support to such organizations, traditional constraints may

be weakened. It is conceivable that, with union backing, some environmental organizations will be able to wean themselves off of elite dependence, thus allowing them to address more social justice issues. Of course, given labor's pro-treadmill history, environmental organizations dependent on labor support would risk having to make new compromises. But strengthened ties between these two movements would more likely inject environmental sensibilities into the labor agenda, thus allowing for the emergence of a powerful united movement for a just and sustainable economy.

Conclusion

The treadmill of production provides a sound framework for understanding the social forces the lie behind environmental degradation in the United States. The US form of capitalist democracy tends to bring three key social actors, capital, labor and the state, into alignment behind policies that facilitate continuous economic expansion and the attendant ecological destruction. While the treadmill of production represents a formidable social force, it is not unstoppable. It is doubtful that the environmental movement alone can reshape this social structure in any significant way, but with the aid of one treadmill actor, this possibility exists. Organized labor can potentially play that role. Indeed, historically unions have acted in ways that at times slowed the treadmill of production. Yet, for the most part, unions have been enthusiastic champions of the treadmill.

But this may be changing. Changes in the global economy have set off a series of events that are pushing unions off the treadmill and into the arms of the environmental community. Although unionists were routinely cast as opponents of environmental measures throughout the 1970s and 1980s as a result of employer efforts to advance the largely bogus idea of a jobs-environment tradeoff, this notion has lost credibility among union leaders who have seen their ranks decimated by automation, capital flight and a vicious anti-union assault by employers. This, combined with new union leadership and the growing influence of service sector unions whose work is less directly tied to material production, has spawned a labor movement that is more open to alliance formation with the environmental community.

In 1980, in the same book in which the treadmill of production framework was introduced, Allan Schnaiberg wrote,

"The problem is that labor and environmental movements have neither sufficiently coordinated their efforts, nor shared their consciousness of the limits of the treadmill. Not until the social equity movements merge forces with appropriate technology groups is there any hope for sufficient political mobilization to alter state behavior. The political struggle for change will only begin in earnest at that point. Until then, it will remain at the level of intellectual debate, and not enter into genuine organized political conflict." (1980, 249)

We may now be at the beginning point of a genuine organized political movement that merges labor and environmental concerns.

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