

Features

**THE SOCIAL CONSTRUCTION OF
OCCUPATIONAL HEALTH AND SAFETY:
BARRIERS TO ENVIRONMENTAL-LABOR
HEALTH COALITIONS**

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ABSTRACT

Occupational and environmental health advocates promote the potential of alliances between workers and community members to address shared health problems resulting from industrial processes. Advocates recognize the need to overcome job blackmail, which has successfully pitted these groups against one another by threatening job loss in the face of calls for improved standards. This strategic form of issue management represents a dualism between good health and clean environments on one hand and jobs and tax bases on the other. The author argues that overcoming job blackmail requires attention not only to this dualism, but to the broader social construction of occupational and environmental health. The article describes a series of oppositional constructions, in both strategic organizational rhetoric and everyday cultural discourse, which reinforces job blackmail and impedes the development of solidarity among workers, neighbors, and environmental advocates. These dualisms polarize our views of work and environment, science, and social identity, thereby producing barriers to coalition formation. Understanding these reifications helps to build an activist agenda and identify potential resources for organizing to overcome these barriers.

The year 2005 saw 4.2 million non-fatal injuries recorded in the workplace [1] and 5,702 workplace fatalities in the United States [2]. Though more difficult to

measure, employees also face illness and disease due to chemical exposure, ergonomic problems, and stress [3, 4]. Many of the same industrial practices that produce employee morbidity and mortality also contribute to health hazards in the community through toxic releases. According to the U.S. Environmental Protection Agency (EPA) [5] more than 4.3 billion pounds of toxics were released by reporting companies in 2005, including 923 million pounds of known or suspected carcinogens. Given the overlap of occupational and environmental problems, employee-community coalitions represent a significant opportunity to improve industrial practices in ways that support both occupational and environmental health.

In the United States during the 1970s, workers, environmental activists, and public health movements worked together to achieve significant public health legislation, including the 1970 Clean Air Act and the 1972 Clean Water Amendment [6, 7]. Environmental activists supported the 1973 strike over health and safety at Shell Oil by the Oil, Chemical, and Atomic Workers [7]. However, managerial rhetoric that pitted jobs versus the environment soon sabotaged the potential of these alliances to develop a progressive public health movement. Since then, the toll on labor wrought by outsourcing, downsizing, and economic globalization in the form of wage losses and job insecurity has exacerbated problems in occupational health and safety and made workers more vulnerable to job threats [8-10]. Several labor-community coalitions in the 1980s and 1990s achieved some significant successes in environmental health such as the New Jersey Work-Environment Council and the Silicon Valley Toxics Coalition's efforts in achieving right-to-know legislation [11] but such examples remain rare. Increased attention to the degradation of labor and public health by capitalist production processes is spurring increased interest in such coalitions. The growth in power of the environmental movement as well as the development of environmental health and environmental justice activism represents an opportunity for the politically weakened labor movement to forge coalitions focused on worker and community health [12].

Several important works have analyzed high profile labor-environment organizing efforts from a social movements perspective [3, 11, 13]. It is clear that the central challenge for labor-community coalitions is to contest the dualism between health and jobs represented by job blackmail. This article considers how oppositional constructions of occupational health/safety and environment support job blackmail and prevent the development of more widespread employee-community health coalitions. A communication perspective sheds light on the reification of key concepts regarding work, health, environment, and social identity in both everyday and strategic discourses. Identifying and problematizing these often taken-for-granted, constructions is an important step in facilitating coalition organizing and research.

LANGUAGE AND COALITION ORGANIZING

A critical-interpretive lens draws attention to how socially constructed realities shape and are shaped by material circumstances. The interpretive perspective holds that language is the medium for the production, maintenance, and reproduction of social reality [14]. The critical lens examines how the production of social reality produces and reinforces dominant power relationships, as well as how these relationships can be resisted and transformed [15-17]. Communication, “the process through which meaning is created and, over time, sedimented” [18], produces “common sense” that guides perceptions of what is possible and impossible [19]. In this view, communication does not transmit pre-existing realities but is foundational to social reality.

This study examines the interrelation of strategic and everyday discourses in defining the im/possible in ways that impede the development of collective resistance. Corporate leaders employ strategic organizational rhetoric, or issue management, to prevent coalition development aimed at occupational and environmental health. As Conrad [20] describes, “‘Rhetorical perspectives’ foreground the intentional, strategic use of social-linguistic structures to produce, reproduce, and legitimize structures of privilege and domination” [p. 420]. Organizational leaders use issue management to actively shape the sociopolitical environment, facilitating managerial goals with both “external” and “internal” audiences [21, 22]. At the same time, divisions between workers and community members are constituted and influenced by multiple institutional and cultural discourses that become taken-for-granted.

Environmental and occupational health coalitions are not a panacea for changing industrial practice [13] but they can play an important role in resisting the effects of deregulation and outsourcing that increase the vulnerability of these groups. Michael Mann [23] suggested that solutions to social problems emerge through “interstitial locations” around dominant institutions as the marginal outflank elites by linking together. Coalition formation may help to outmaneuver the strategic advantage of elites in policy formation [20] tactically (in de Certeau’s sense as the art of the weak) or strategically (leading to outmaneuvering and the enactment of long-range goals).¹ Solidarity and the withdrawal of consent are key to such resistance [23, 24]. The concept of “solidarity” has a long history in labor movements. Here I use the term in Rorty’s [25] sense of “imaginative identification,” which involves building identification around salient similarities that encourage us to understand differences as less consequential.

¹Localized cooperation between workers in an individual workplace and members of the surrounding community may succeed in winning health and safety concessions from management, although a NIMBY focus may limit opportunities for building long-term partnerships. Conversely, actions may lead to little local achievement but more significant contributions to the development of public debate and activist networks.

The binary constructions of health and safety described in this article undermine identification among workers and community groups concerned about corporate-generated health problems. Fairhurst [26] noted that dualisms “are not necessarily mutually exclusive, but rely on conceptualizations that effectively set alternate views in opposition” [p. 380], which tend to polarize researchers and social actors [26]. This analysis is not “deconstructionist” in the Derridian sense of identifying and undermining hierarchies, nor is it strictly dialectical. I use dualism to “characterize two opposing influences making no generalizable assumptions about independence, simultaneity, or possible unification” [p. 425]. Rather than assume that all of the tensions described are productive, or that all must be unified, I examine the implications of the reification of these dualisms for achieving increased solidarity.

This synthesis of existing literature includes interdisciplinary research in labor, occupational health, and environmental health and justice as well as occupational and environmental health textbooks. The analysis identified a series of binary constructions regarding the workplace and environment, scientific discourse, and social identity, which reduce identification among those who might contest corporate sources of illness. The conclusion considers how activists may work to overcome these constructions.

CONSTRUCTING JOB BLACKMAIL

Corporate issue managers have successfully framed calls for improvements in working conditions and environmental performance as a trade-off between economic well-being and health. Here, I describe the dualisms invoked by job blackmail and discuss the ways in which they can be challenged.

Jobs versus Health

Employers enlist workers to help defeat calls for improved environmental performance by threatening that resulting profit losses will mean layoffs or closures. As Obach [3] observed, “Knowing that a threat to corporate profits will not move the public, a more sympathetic victim is necessary to win public support, and workers are the obvious group to serve this purpose” [p. 10]. These threats shape employee and public perceptions of conflicts among health, environment, and economic success. The implication is that “If workers want to keep their jobs and be assured of future jobs, they must live and work with health hazards” [27, p. 7]. For example, when OSHA recommended a vinyl chloride exposure standard after discovery of liver cancer among workers at B.F. Goodrich, manufacturers suggested that compliance would cause PVC prices to rise by 80% and General Motors warned it would need to eliminate more than one million jobs. Yet no such cost increases or job losses took place when the standard was implemented [27]. Similarly, when down-river residents

challenged the Canton, N.C. Champion paper plant's permit because of its emissions of dyes and dioxin in the Pigeon River, the "Don't let Champion Fall" campaign claimed new requirements would result in closure [28]. This job loss threat encourages employee cooperation with management. When the Montana Anaconda Copper Company claimed that it was shutting down due to environmental laws in 1980, employees protested with signs like, "Our babies can't eat clean air" [7].²

This bifurcation reflects strategic rhetorical appeals rather than "realities." Environmental and safety regulations have been estimated at one-tenth of one percent of large-scale layoffs [29]. Indeed, decreasing pollution may actually keep an industry competitive [30] and ward off disinvestments that lead to health problems *and* plant shut-downs [27]. Furthermore, the taken-for-granted "realities" involve particular social constructions of the economy. As Levenstein [10] argued, uses of technology, modes of production, industrial structures, and market systems are all social choices that produce disease. Prevailing economic discourse discourages health and environmental protections by excluding them from GNP calculations while including damaging practices such as oil-spill clean-ups [27], and routinely overestimating the costs of regulations and underestimating the benefits of health protections in cost-benefit analysis [27].

Economy versus Health

The threat of job loss is significant for employees, but also for non-employee community members who fear the loss of a town's tax and economic base. As a result, community leaders often side with management against worker actions for better wages and working conditions [31], and neighbors may react aggressively to activists. Recognition of environmental health problems can devastate property values. Brown and Mikkelsen [32] found that city officials in Woburn, Massachusetts, denied EPA discoveries of chemical contamination and neighbors ridiculed local activists and ostracized families with members with leukemia. The authors found that fear of losing jobs, property value, and the town's industrial identity, along with the wish to remain in denial, were the root causes of this response.

Conflicts between economics and health should not be underestimated; as Chary [33] argued, if a plant stops using bleach in its paper, that plant might not lose jobs but the bleach makers will. Despite the significance of economic threats though, there is potential for environmental improvements to increase property values and tourism. Moreover, appeals to these conflicts ignore the

²The company's excuse was effective despite contradictory evidence and employee awareness of this ploy. Some noted that management had blamed union wages when they threatened shutdowns in the past [7].

larger political structures that make jobs scarce and fail to promote strategies for clean development and “just transitions” packages (first developed by Tony Mazzocchi) that help workers and communities faced with plant closures [30, 34].

Labor and environmental groups have come to recognize the divisions wrought by job blackmail [27, 35], spurring organizing such as the Blue Green Alliance (national) and the Alliance for a Healthy Tomorrow (AHT) in Massachusetts. Yet economic threats are not the only barrier to coalition formation. Advocates must become more aware of taken-for-granted communicative constructions that also impede cooperation regarding public health threats. Dualistic constructions of the workplace and environment, science, and social identity reinforce divisions that reduce identification between workers and corporate neighbors.

CONSTRUCTIONS OF THE WORKPLACE AND ENVIRONMENT

Everyday discourses depicting workplaces as entities with insides and outsides, and as private rather than public, serve to contain public discussion about workplace-generated health problems. Communicating about the environment as natural rather than built, and as oppositional to public health, also represents problems for health activism.

Inside/Outside

The container metaphor, the common linguistic habit of reifying organizations as a container with an “outside” and an “inside” in which things occur [21], discourages attention to organizational-environmental linkages. In the United States, regulatory systems for dealing with occupational and environmental health reflect the container metaphor as they operate with largely separate institutions, rules, and procedures for employee health at OSHA (inside) and for environmental performance at the EPA (outside). This arrangement divides workers and communities, given that OSHA can be addressed by unions and employees exclusively, and the EPA is generally limited to influences outside of the workplace [28]. This fragmentation weakens regulatory power and impedes citizen participation [6]. Despite moves to build cooperation between agencies, many workplaces continue to separate their occupational health and environmental performance functions [36, 37]. The reification of organizational boundaries prevents the cooperative management of health risks that affect both workers and neighbors. Treating the workplace like a container may also contribute to the idea that occupational disease epidemics are “ring-fenced” in the workplace and not of major concern to the public [38]. This perspective seems to influence progressive alliances; as a MassCOSH organizer working with the AHT stated, “to be blunt, there just is not as much interest in detecting

workers' [health] problems inside the four walls of the workplace" [11]. Indeed, many of the high profile labor-environment coalitions, such as the much-advertised "Turtles and Teamsters" event organized by the United Steelworkers of America, focus more on jobs and the environment rather than the shared issue of health. Yet toxics demonstrate the fluidity of organizational boundaries. These inside/outside constructions work in tandem with private/public distinctions.

Private/Public

The social construction of corporations as private rather than public quite often means that workers are treated as though they are not citizens, and managers as though they are not accountable to the public [15]. Indeed, Morse and Parker [39] observed that public discourse about occupational health often treats employees as though they are not people (for example, "two workers died, no community members hurt"). In a private workplace, working conditions are seen as the purview of management, and workers are seen to trade their health for better wages. Morse and Parker [39] argued that the idea that employers buy workers' health prevents labor/environmental alliances by encouraging consent to occupational health problems.

Despite academic attention to stakeholder theory [40-42], corporate stakeholder practices that involve the public in corporate decision-making are rather weak and largely voluntary in the United States. Many corporate-sponsored community stakeholder processes can be viewed as tools to co-opt potential activist publics [43, 44]. Occupational health and safety (OHS) stakeholder processes, where they occur, generally focus on employee communication, with more limited attention to community participation [see for example 45, 46]. Yet occupational safety systems may have catastrophic influence on communities, as high profile cases such as Bhopal illustrate.³ The potential power of involving the community in OHS and the need to foment widespread support for such an approach was demonstrated by the intense corporate opposition to the New Jersey Work Environment Council's efforts to involve neighbors in corporate hazard planning. Corporate advocates framed the move as an infringement on managerial prerogatives [13].

Public Health/Environment

Previously, I described job blackmail as a forced choice between economic performance on one hand and health and environment on the other. However, the picture is more complicated than this because corporate leaders rhetorically frame

³OHS discourse is not inevitably separated from citizen participation. Occupational health texts such as Levy et al. [34] describe the importance of citizen participation, although this focus appears rare.

issues as “jobs versus environment” rather than “jobs versus health.” Media outlets, activists, and publics often accept this depiction. This strategic environmental framing serves to dehumanize risks and obscure shared health problems between workers and community members.

The dominance of the environmental frame allows management to pit jobs versus an abstract view of the environment (e.g., the spotted owl), rather than human health issues. For instance, although people who lived in communities downstream from the Champion paper mill were getting cancer at high rates and could not use the river for their livelihoods because of toxic releases, management’s public relations campaign described the problem as “jobs versus fish” and the Asheville newspaper framed the story almost exclusively this way [28]. Clearly, fish make an easier target than adults and children with cancer.

The ascendancy of the environmental frame facilitates this strategy. Historically, public health officials and advocates worked on environmental issues like air and water pollution [47]. State-level environmental protection agencies were created in the 1970s by removing functions and resources from public health departments [47]. This split “has had unfortunate consequences for the efficacy of both movements” [47], preventing recognition of their interconnections. Separating health from the environment exacerbates the tendency to equate health with individual lifestyle choices rather than a more holistic perspective [48]. For labor, the split means that employees often fear that environmentalists want to “save the whales and kill the workers” [11]. Communicating the connections between health and environment would help to involve consumers and labor in joint campaigns for safe products, public health, and sustainability.⁴ In addition to the split between health and the environment, organizing barriers also occur due to bifurcations in how the environment itself is defined.

Natural/Built

Much of the seemingly intractable conflict between labor and mainstream environmental groups centers around conceptions of the environment. Labor supporters lay the blame for the wedge between the two groups on environmentalists’ focus on wilderness preservation in the 1970s, which they saw as antagonistic to workers’ interests [35, 49, 50]. For instance, Storey observed that mainstream environmentalism focused on a “basic division between work, product and environment” [p. 430]. Labor scholars argue that environmentalists privileged natural environments over built, ignoring health issues in urban areas [3]. Preservationist discourse focused on maintaining natural spaces for recreation,

⁴According to Estabrook [13], when the Silicon Valley Toxics Coalition began to focus on making high-tech products safer, they lost contact with their labor partners.

aesthetic, and spiritual reasons⁵ inspired hostility from workers who felt environmentalists cared more about land than their jobs.

The bifurcation of natural and built environments produced barriers to cooperation. The environmental health and justice movements (credited with bringing issues of health back into environmental debates) challenge this reification by focusing on urban spaces including workplaces and the marginalized communities who face disparities in risk exposure [50]. Yet continued hostility over the natural/built split may reinforce this bifurcation by splitting the environmental movement into those groups labor can work with (those who focus on built environments) and those labor cannot (those focused on preservation). Isolating preservationists as the source of conflict fails to promote an ecological view of health that would encourage us to see linkages among wilderness preservation, urban environmental justice, and human health [51-53], which would create the potential for even larger coalitions. The Alliance for Sustainable Jobs and the Environment (ASJE) is a good example, challenging the development of ANWAR based on environmental preservation *and* the possibilities of job creation through such preservation (www.asje.org/asje_resolutions.html). The ASJE demonstrated the importance of environmental preservation as a means of actually protecting jobs by bringing to light the devastating impact on both environment and jobs of Pacific Lumber's timber policies under Maxxam ownership [11].

The preceding dualisms draw attention away from the interdependence of workplaces, communities, health, and environment. The next section focuses on the role of scientific discourse in creating additional barriers to activist organizing.

SCIENTIFIC CONSTRUCTIONS

Scientific discourse shapes our understanding of occupational and environmental health. Notwithstanding claims of objectivity and neutrality, occupational and environmental health sciences represent political processes. A number of disciplines have articulated the politics of science, including the sociology of scientific knowledge, the rhetoric of science, and feminism (see [54-59]). This section focuses on how scientific discourse creates dualisms that govern public understanding of the extent and nature of industrially-generated health problems.

Safety/Health

Despite the common acronym OHS (occupational health and safety), scientific research and resulting bureaucratic management systems tend to bifurcate these

⁵Some OHS authors distinguish between preservationists and conservationists, depicting conservationists as more reasonable because their focus on wise use of resources allowed room for compromise on the utility of nature [43].

concepts. *Safety* is generally equated with accident management and *health* with occupational illness and disease. Functionally, OHS systems employ industrial hygienists to control hazard exposures and occupational safety specialists to focus on accidents [60]. Moreover, safety is privileged over disease. Workplace health practitioners tend to underestimate occupational illness, often because they are paid by management who bears the cost of compensation [38].⁶ Scientific methods encourage this bias. Short-term or acute problems are easier to measure than long-term problems [38], and it is easier to trace the source of injuries than illness [10]. Given that most illnesses are multifactorial, traditional scientific methodology makes the etiology of occupational illness difficult to pinpoint, which leads to distinctions such as that between “work-related” and “occupational” disease [61]. If a worker with asthma faces a polluted workplace and a polluted community, the workplace aspects of the illness likely go unrecorded, particularly by community physicians with little knowledge of on-the-job issues [38]. Technological choices contribute to this underestimation. For instance, industry avoids chemical exposure standards by claiming that existing technology cannot measure low-level exposures, while employers can measure illegal drug use by employees using parts-per-billion technology [38].

Textbooks may reinforce this pattern by giving far more space to accident and injury prevention than they do to illness and toxics [45, 46]. Even critically-oriented researchers privilege injury prevention [62]. Indeed, some activists feel they must integrate “the ‘health’ into the health and safety discourse” [35] in order to contest trade-offs between worker health and corporate profits. The failure to recognize the scope and magnitude of occupational illness reduces the likelihood that even unions will prioritize health over economic gains [35] and lessens the impetus for coalition-building. This oversight presents a challenge to labor and neighbor coalitions, given that awareness of shared illness is key to building identification between these groups [11, 63].

Additionally, the bifurcation of safety and health may lead activists and professionals to overlook the ways in which occupational safety may affect community members. The Bhopal disaster demonstrates this linkage, where high rates of occupational injury and few safety inspections presaged the explosion that led to more than 2,000 deaths and more than 25,000 illnesses and injuries [64].⁷

⁶It is not surprising that union workplaces are healthier and safer than non-union workplaces [57]. The history of several occupational epidemics such as pneumoconiosis bears out the importance of unions in forcing medical and legal attention on occupational disease.

⁷The plant reduced the number of employees, hired less qualified workers, and conducted fewer safety inspections. Neighbors were unaware of the dangers, indeed, many thought the pesticide chemical plant made medicines. Neighbors did not know what the alarms meant when they finally went off after the explosion took place [63].

Individual/Structural

The preference for individual rather than structural explanations of risk is another barrier to addressing corporate-generated health harms as it de-emphasizes structural problems and mediates the sense of hazard that might lead to social change. Bureaucratic and scientific OHS discourses have long depicted occupational hazards in terms of the behaviors of individual workers [4, 65]. Social science research in occupational health began with psychological interest in “accident proneness” by the Tavistock Institute [65], a concept quickly adopted by U.S. industrial psychologists. Despite attempts to avoid victim blaming, the contemporary study of accidents tends to focus on the actions and attributes of workers (perceptions, mistakes, violations involved in unsafe behavior) *and not* management’s actions and attributes [62].

Regulatory systems in the United States also emphasize lifestyle choices over structural sources of harm [10], and the growth of neoliberalism encourages more attention to workers’ individual responsibility and management’s voluntary compliance [62]. The very use of the term “accident” connotes a random, unforeseeable, unintentional event. The term de-emphasizes causation [62, 65], particularly those hazards that are built into jobs. The political decisions made by managers and regulators to avoid safety investments, improve materials, or alter production practices are hidden behind the “accident” discourse. The concept of an accident is poorly suited to the chemical explosion at the Rhone-Poulence plant in Midrand, South Africa, in 1992, when two months prior their West Virginia plant had an identical explosion resulting in the death of an employee and 45,000 pounds of chemicals released [66].

Individualized explanations of injury and disease encourage workers to accept and hide risks, a situation already rampant because of job insecurity [38], the normalization of hazards [67], and identity issues such as working class and masculine norms [48]. Individualization breeds solutions focused on behavioral change or “safety cultures” [68], whereas highlighting managerial choices that put both worker and community health at risk potentially spurs collective action toward changing the structural sources of risk.

Prevention versus Reduction

Despite potential synergies between occupational and environmental health protections, much popular and scientific discourse emphasizes trade-offs between employee and citizen health. This trade-off discourse reflects the container metaphor. For instance, Morse and Parker [39] observed that managing toxins may lead to conflicting interests between community members and workers because less outside pollution may mean more inside pollution. Similarly, Kamp and Le Blansch [69] mentioned that decreasing occupational noise by opening windows may increase neighbor exposure, and that recycling process-water in the paper industry to reduce environmental impact can result

in infectious disease among workers [p. 416]. Employees influenced by this trade-off discourse are likely to distrust community environmental activists, whose requests for a cleaner environment may worsen the work environment. Mayer [11] found that labor groups in Massachusetts, including health and safety activists, were concerned about joining environmentalists in the AHT, believing that clean air laws would lead management to seal toxins within the workplace.

This either-or discourse reinforces the logic of risk *transfer* or even *reduction* rather than risk *prevention*. Kamp and Le Blansch's [69] examples focused on "end-of-pipe" interventions [37], which attempt to manage rather than eliminate hazards. As Levy et al. [37] detailed, occupational and environmental health systems have long focused on reducing harm rather than eliminating it, and often did so by shifting exposure from inside to outside or vice-versa. Scientific research reinforces risk reduction logics by establishing "acceptable" levels of harm through lengthy studies of dose/response ratios rather than questioning the use of hazardous substances and creating alternatives [32]. U.S. and U.K. regulatory systems similarly require that workers become ill and establish causation before measures are taken. Deregulation and privatization in global trade agreements extends this logic globally [70, 71].

Movements for the precautionary principle [31] and Canada's "rebuttal presumption," where the burden of proof is on employers to show that substances and processes are safe [38], help to deconstruct risk transfer logics. The switch from perchloroethylene to water-based solvents by dry cleaners reduces worker and community exposure to carcinogens, volatile organic compounds in indoor and outdoor air, *and* employee ergonomic risk factors⁸ [37]. The precautionary principle was framed by the AHT in terms of "preventing harms, not progress," and was key in building bridges between environmental groups and labor. Eventually, the group emphasized prevention, finding that a preventive approach would encourage primary interventions to reduce the use of toxics, whereas precaution merely suggests that one weigh alternatives before deciding [11]. Rejecting risk transfer and encouraging risk prevention is an important step in promoting worker-community cooperation.

Objectivity/Subjectivity

The construction of science as an objective and neutral methodology denies the value-laden choices evident in the previous sections. Additionally, the bifurcation of "objective" and "subjective" epistemologies discounts the experiential knowledge of workers and neighbors.

⁸Some existing legislation such as the 1990 Pollution Prevention Act may be used as a tool to avoid zero-sum negotiations about who will bear production risks, but this depends on how it is utilized and enforced [36].

Calling for scientific proof is a well-established form of corporate issue management resulting in delay and inaction [72, 73]. It serves corporate interests by necessitating lengthy research projects before action can be taken regarding suspected harms. Moreover, research results can always be called into question [74]. Quantitative risk assessment obscures value questions such as social justice [73]. As Nash and Kirsch articulated [31], “the scientific discourse of medicine, often wedded to corporate funding and channeled by environmental agencies influenced by political appointees, negates the impending sense of danger as it is experienced by those who live and work in contaminated environments” [p. 159].

Equating science with objectivity often leads to equating the perceptions and experiences of those at risk with subjectivity (and irrationality). Even Cwikel [75], who wrote about epidemiology for public health activism, undermined citizen perceptions by emphasizing the idea that perceived disease clusters may not rise to statistical significance and cannot establish a proven source. This emphasis discourages public health activists from acting unless they can attract expert epidemiological attention, and it obscures multiple value-laden scientific choices such as what counts as significance.⁹

Establishing the legitimacy of participative risk management involves challenging the objectivity of science and uncovering the relationships of power privileged by its methods and assumptions. The “scientism/expertism” model of occupational health with its belief in scientific certainty, technological optimism, and business focus, contrasts with a socioparticipative model that promotes open information and preventive methodologies such as toxic use registers and risk mapping [38].¹⁰ The latter approach does not reinforce the objective/subjective dichotomy by rejecting science; instead, it insists on different guiding values. Similarly, environmental health activists promote popular epidemiology [32], such as citizen sampling in “bucket brigades” [3] in Good Neighbor Campaigns. The subject/object split means that authorities as well as the general public question the bias of these participatory approaches rather than all forms of research.

In sum, scientific discourse produces binary choices that privilege business interests over workers and community members. These constructions limit

⁹Brown and Mikkelsen [31] argued that statistical significance differs from public health significance because an increased rate of disease is important even if the cluster is too small to reach the statistical cut-off. They also charged that epidemiologists tend to prefer false negatives over false positives, because false positives are potentially embarrassing and may require significant social change.

¹⁰Tracking outcomes means that risk reduction measures are applied only after damages to health, risk mapping facilitates much more immediate risk reduction [57].

attention to long-term issues of illness and structural risk causation that can unite workers and neighbors.

IDENTITY CONSTRUCTIONS AND THE POLITICS OF DIFFERENCE

Researchers also identify socioeconomic and identity differences among workers and environmental advocates as significant barriers to coalition formation. This section considers how the construction of social differences influences perceptions of the potential for cooperation between occupational and environmental health advocates.

Working Class versus Middle Class

Researchers focus heavily on class differences when examining labor and environmental coalitions. Rose [49] famously argued that class engenders cultural divides between workers and environmental activists (along with conflicting interests). According to Rose, “union members and middle-class activists talk, meet, and communicate differently” [p. 57]. Different experiences among working class and middle class populations lead to differing communication styles (language differences, education), orientations toward activism (interest-based/short-term versus value-based, long term), and organizing preferences (action and hierarchy versus consensus and participation). He described union frustration with consensus, and environmentalist frustration with labor’s lack of attention to process. Rose’s thesis has influenced a number of investigators of labor-environment coalitions.

Understanding potential differences between middle-class and working-class activists allows us to develop opportunities for working across them (such as framing values as interests and interests as values). However, we should be careful not to reify these differences. First, the research that undergirds the cultural approach focuses largely on mainstream environmental groups, and not environmental justice advocates, who are likely to be working class or poor. Second, there are competing explanations for conflicts. For instance, Obach [3] argued that the cultural basis of labor-environment conflict has been exaggerated, and suggested the primary root of differences is actually organizational. Unions are legally required to create formal governing roles and procedures, and face trusteeship for noncompliance. Social movement organizations are often legally mandated to be non-partisan, which limits their ability to work in coalition with the political activities of labor (leading to perceptions of their focus on values more than “actions”). Levels of formality, bureaucratization, and professionalization may reflect the organization’s stage of development more than it does a class orientation because social movement organizations tend to formalize over time. He also found that organizational leaders are able to span these

differences with flexible communication styles that address both interest- and value-based orientations.¹¹

The role of class-based conflict should not be underestimated; for instance, closing a workplace remains an option for community groups, an idea rarely accepted by workers [39]. However, given conflicting arguments, more research is needed to understand the role of class in occupational and environmental health coalitions. Less is known about how class issues operate at the local level, where neighbor groups or environmental justice advocates may be poor, working class, or middle-class. Obach's insistence that intermovement coalitions are formed by leadership at state and local levels may lead him to overlook some cultural differences, as he acknowledges. Yet he also assumes that coalition-building starts at the top and moves downwards, missing the significance of ad-hoc and local events to help build changes at the top. Indeed, that pattern reflects the development of the environmental movement [50], which was pushed to begin addressing issues of environmental injustice by grassroots groups.

Majority versus Minority

The social construction of the meaning of race also influences occupational and environmental health activism. Historically, both organized labor and mainstream environmental groups have failed to address the needs of minority groups [76]. Although there is growing interest in minority issues among mainstream environmental organizations, these groups maintain largely white leadership and membership, and are still seen by many as too slow in addressing marginalized groups and issues of environmental racism [50].

The environmental justice movement has brought to light how racial discrimination and economic disadvantage work together to produce disparities. The movement distinguishes itself from environmental health activism based on the explicit attention to issues of race and *racism* as an underlying factor in toxic siting and exposure decisions [47]. The movement organizes people of color, the working class, and poor with a focus on civil rights [50, 77, 78].¹² This network of grassroots groups and NGOs can be a significant ally for OHS groups.

¹¹ Obach [3] also questioned the level of conflict between environmentalists and labor that Rose depicted, noting that Rose focused on contract labor in the construction and timber industry who are more dependent on employers and so more likely to cooperate with them. Miners and timber workers also are more likely to be found in rural, isolated areas, where finding alternate work is more difficult. Moreover, the idea that work engenders different cultures is challenged by changing patterns of work that encourage more planning and autonomy in blue-collar jobs.

¹² Bullard [74] found that grassroots environmental groups attracted African Americans because it grew out of churches and other civic groups committed to civil rights, as evidenced by the 1987 report by the Commission for Racial Justice of the United Church of Christ, *Toxic Waste and Race in the United States*.

OHS activists benefit from the epidemiological methods and right-to-know laws pushed by these groups, while environmentalists gain “insider” knowledge about local companies and worker support for anti-toxics campaigns. Estabrook [13] suggested that community members steeped in both civil rights and union backgrounds helped to forge community-labor coalitions that supported the OCAW’s organizing against the 1984 BASF lockout and challenged industrial polluters in the regions. When BASF attempted to fan racial divisions in Louisiana by calling on their primarily African-American operators to break from the striking maintenance workers, union leaders relied on boundary spanners in that group to maintain solidarity. Occupational health organizing can lead to environmental justice work benefitting minorities as well. For example, when a Santa Clara COSH group organized the Silicon Valley Toxics Coalition to address the dangers of high-tech jobs in the computer industry, the coalition soon began to address racial disparities in Superfund clean-up [11]. However, occupational health and safety activists have not yet fully recognized or articulated the raced nature of job risks [35, 77] despite the racial profile of dangerous work [49, 77]. The social construction of OHS in largely “white” terms acts as a barrier to the kind of coalition-building described above.

At the same time, we should not assume that race divides communities and employees, because this overlooks the increased diversity of unions and workplaces (see [3, 76]). We also should avoid the assumption that addressing race and gender issues is a matter of identity politics as distinct from interest-based organizing. Storey [35] described the central problem in public health activism as the displacement of class as the agent of social change due to identity politics. Dichotomizing identity and interest politics precludes an effective analysis of power, ignoring the ways in which race and class (and gender, as I discuss next) are intertwined in producing disparities in exposure to risk.

Men versus Women

Dualistic gender constructions also act as barriers to effective health coalitions, consistent with theories demonstrating the gendered nature of organizing [79]. Women constitute a large proportion of environmental health activists [80], and often head anti-toxics organizations because they are more likely to be at home with their children, notice linkages between child health and environment, and are less likely to believe that health must be traded for economic gain [32]. Governmental and corporate discourses often dismiss their concerns as “hysterical housewives” [80]. That gendered framing device may discourage male workers from identifying with environmental activists or concerned neighbors. This exacerbates the difficulty of engaging working men with issues of occupational harm given constructions of masculinity as tough and independent, and reporting health problems as feminine [35, 48].

In order to build effective alliances, activists and researchers should avoid reifying the male worker/female environmentalist dichotomy. Labor's history of exclusionary gender politics in the United States (and Canada) focused our attention on the health problems of male miners and industrial workers [35, 76].¹³ Yet women played a crucial role in organizing for occupational health protections [81], and their increasing presence in the workplace is slowly gaining recognition as research addresses the occupational and environmental risks inherent in "women's work" [82]. Women risk pesticide exposure in agriculture, bacterial infection in the fishing industry, and chemical exposure in the beauty and cleaning industries, each of which also represents a threat to public health [81-83]. Yet measures of occupational injury often are biased toward men and the industries in which they are highly represented (e.g., manufacturing), reinforcing perceptions that women are not at risk. Questions about women's competence in the workplace lead to victim-blaming regarding health and safety causation [48, 82]; indeed, the field of psychology's interest in "accident proneness" began with studies of British women munitions workers [65].

Although labor politics has been largely class-based, increasing numbers of women and minorities are forcing unions to address issues of racism and sexism. Making the linkages among racial and gender identities, class, and interests (and recognizing their fluidity) creates an opportunity for broad-based mobilization that interest/identity dualisms do not [35, 76].

North versus South

Addressing health problems associated with socially marginalized groups based on race, gender, and class is made even more difficult by outsourcing. Economic trade agreements and the discourse of "free trade" impede the development of an industrially-focused public health movement by exporting hazardous jobs and substances from developed countries to the global south [9, 84-86]. Sweatshop economies and the rise of contingent contract labor are creating new occupational epidemics and the resurgence of old ones [38, 71, 86, 87]. Environmental degradation surrounds maquiladoras and other outsourced manufacturers [88, 89]. Workers who organize for improved conditions face intimidation and threats, and southern governments at times are complicit as they seek to attract foreign investment [90].

The economic pressure of outsourcing in developed countries strengthens the power of job blackmail, pitting the interests of "first world" and "third world" workers against one another. The massive geographical barrier among management, workers, and consumers means that for many activists in the north, health harms are simply invisible. Despite at least some level of awareness of the

¹³ Historically, white men in large unions and federations chose to cooperate with management to keep women and minorities out of the workplace in order to maintain wages [72].

problem of outsourcing, including health risks, U.S. workers generally focused on economic competition rather than cooperation with “outsourced” workers [84]. Some U.S. unions continue to avoid more encompassing debates about economic globalization [90].

Cross-border environmental health alliances seek to undermine competition between workers and build solidarity [88]. For instance, representatives of the “Self-Help Association of Former RCA Employees,” organized by the Taiwan Association of Victims of Occupational Injuries, toured the United States in 2002 to educate publics about worker and community toxic exposures in Taiwan 30 years ago believed to have contributed to thousands of toxic illnesses and cancer deaths [91]. The Silicon Valley Toxics Coalition moved from addressing high-tech toxics in California to organizing for safer products and recycling to reduce pollution in developing countries [11]. By matching the scale of business, such transnational cooperation builds the pressure necessary to achieve policy changes such as expanding the Toxic Release Inventory globally [13, 90]. Transnational labor and environmental alliances face multiple complexities, including the problem of power differences among activists. For example, activists in developing countries often are extremely mistrusting of mainstream environmental NGOs that appear to care more about wildlife and land preservation than their ability to make a living [77].¹⁴ Yet issues of occupational and environmental health disparities are shared globally, and a united focus on the concept of safe work in safe communities may help alliances focus on shared goals rather than jobs competition.

CONCLUSION

Job blackmail has proven to be an effective form of corporate issue management, preventing the development of a broader public health movement focused on occupational and environmental health since the late 1970s. I have argued that this success is dependent, in part, upon a series of socially constructed oppositions regarding the workplace, environment, science, and social identity. Some of these dualisms represent strategic communicative choices (jobs versus environment rather than jobs versus health), whereas others represent linguistic and cultural norms (such as the container metaphor). Identifying and elucidating these constructions provides insight into the communicative resources needed to overcome these barriers.

First, jobs versus health threats represent a false dichotomy. Health improvements rarely affect profitability and often result in greater economic advantages

¹⁴Critics point to “nature swaps” negotiated by groups like the Sierra Club and Audubon Society as examples of deep divisions between developed and developing countries because these agreements reify the concept of the debt, essentially relinquish sovereignty and give token representation for those affected by the decisions [73].

[27, 29]. Moreover, there is little reason to accept the implied choice. Activists are gaining wider agreement about the need for a sustainable economy that produces healthy jobs and clean communities [28, 83, 91]. Policy options such as “just transitions” that offer monetary support and job training for workers displaced by environmental regulations [92] deconstruct these dichotomies, but require more resources to become effective.

This article also suggests that reconnecting the concepts of public health and environment would make it more difficult for management to employ “jobs versus fish” framing to divide critics. Replacing environmental frames with public health only reinforces the dualism. Instead, researchers and advocates should promote an ecological approach that highlights the connections between health and environment. This approach would broaden the potential for alliances¹⁵ to include labor, mainstream environmental groups, environmental health and justice advocates, consumers, as well as ad hoc community groups, and unaffiliated workers. These groups may act tactically to resist encroachments on health protections and strategically to build a public health movement. The reconnection of public health and environment may be particularly important in the current political environment, when the notion of “green jobs” as an economic stimulus has moved from progressive talk to national headlines. While these headlines focus important attention on the need for environmentally sustainable energy practices, there is little discussion about the safety of those jobs for workers or how potential trade-offs for communities (e.g., power lines) will be managed in ways that avoid continued disparities.

The dualisms in scientific discourse illustrate that scientific research is as much a barrier to social change as it is a tool for improving health status. Building a repertoire of participative methodologies does not involve rejecting science, but it does involve challenging the values guiding scientific endeavors and its supposed neutrality. Occupational and environmental health advocates can pool existing resources to increase citizen participation, such as right-to-know laws and OSHA requirements, and develop alternative resources such as citizen epidemiology, risk mapping, and harm reduction approaches [32, 38]. It involves challenging elite scientific consensus as the basis for intervention. Groups also may avoid these standards; for instance, “Good Neighbor” agreements can be forged based on nuisances such as bad smells and noises as well as health effects [27].

The role of identity in labor community health alliances is contested. Rather than argue about whether differences arise through culture, organizational issues,

¹⁵Levins and Lopez [48] identified four “movements” that aim toward more holistic approaches to public health. These include “ecosystem health” that focuses on the inter-relationships between the health of humans and the environment, “environmental justice” discussed in this article, the social determination movement, which seeks to address the sources of health inequalities, and the “health care for all” movement that advocates universal access to care. They argue that public health policies must integrate these approaches.

or interests, research should investigate how these differences interrelate. Better understanding of the hidden history of multi-identity labor and environmental organizing can shed light on the formation of collective identities and solidarity based on common problems of marginalization [76]. Public health is a potential source of solidarity because risk crosses boundaries, but only when paired with an analysis of power and discrimination.

Labor and environmental advocates reinforce divisions when they argue about whose responsibility it is to reach out to the other. For instance, Chary [33] claimed that unions must begin to frame environmental issues in terms of saving jobs, and that labor's failure to create a jobs agenda that encompasses the environment has left environmentalists with little bargaining power for protecting jobs. Merrill [93] disagreed, contending that the environmental movement must articulate a vision of what place working people will have in a green world. Overcoming the discourse of blame requires creating spaces for the development of informal networks that build trust and acknowledge conflicting pressures [3, 28] in places like the Highlander Research and Education Center and the Los Angeles Labor-Community Strategy Center.

Underlying the dichotomies in this article is the power of employers to threaten, relocate, influence regulators, persuade the public, and make resource decisions relatively autonomously [27]. This power inequity necessitates larger political reforms and the formation of social movements that address corporate power [94]. Kuhn and Wooding [8] argued that improving work, health, and environment require larger normative and systemic changes such as national health programs, labor law reform, income inequality reduction, as well as corporate governance reforms that would increase public control over investment decisions and reduce capital flight [81]. The call for broader political organizing of marginalized groups is considered infeasible in the United States [8, 94]. Yet the movement for globalization from below offers insights into contemporary coalition formation that seeks to counter corporate power and reinvigorate democratic control. It also offers tactical models such as networking, and strategies such as the movement to reinvigorate control over corporate charters [30, 95]. Formal organizing such as the Labor Institute's training program to build blue-green alliances [3] provides an infrastructure for challenging managerial prerogatives. On the other hand, ad hoc and tactical action such as cross-border alliances can help to build larger strategic action to the degree that participants encourage dialogue that undermines dominant dichotomies and articulate linkages among occupational and environmental health problems, corporate power, and the need for sustainable jobs and economies.

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