Coalitions between labor unions and environmental organizations often dissolve in class tensions that appear to force unions to choose between job security and occupational or environmental health. This article examines a successful blue-green coalition that worked to substitute cleaning products used in Boston public schools with safer alternatives. The coalition succeeded in part through the role of bridge builders, who unified a diverse group of stakeholders, including community and environmental health advocates, labor activists and labor unionists, and school administrators, to discuss their individual and common interests in eliminating toxic chemicals from the school environment. This article also explores the framing strategies used by the coalition partners, especially the logic of the precautionary principle in bridging the concerns of the environmental activists with the safety and health concerns of the union. This case raises questions of how coalition strategies and tactics may bear on the success of blue-green coalitions.

Keywords: labor; environmental movements; COSH; school health; precautionary principle; framing
risks. Proposals to substitute these hazardous substances with less toxic, or so-called green cleaners, often encounter difficulties because people are primed to use sensory clues to recognize a clean toilet.

In the fall of 2003, the Boston Urban Asthma Coalition (BUAC) and the Massachusetts Committee on Occupational Safety and Health (MassCOSH), in cooperation with labor unions and school administrators, launched a coalition of organizations to address well-documented problems with environmental quality in Boston schools, and to ensure that discussions about remediation alternatives would include the broadest possible array of stakeholders, including parents, teachers and other school employees, school administrators, and community health advocates. This coalition quickly experienced success on a major component in their short-term agenda: the substitution of common cleaning products with green cleaners. The project team did, however, encounter numerous obstacles in their campaign. Some school staffers expressed suspicion about the new products, such as the toilet bowl cleaner, which lacked the familiar odor and did not leave the water in the bowl blue. The absence of such sensory cues raised doubts as to whether or not the toilet had been cleaned. As one school custodian explained in exasperation over complaints about the change, “You know, if they don’t see that blue, you can talk ’til you’re blue in the face, so to speak.”

This coalition, the Green Cleaners Project, has brought Boston in step with a growing national movement around school environmental health. Over the past decade, community groups have been working at local, state, and national levels to draw attention to problems of environmental quality in schools. Advocates have pointed to increasing rates of chronic illnesses among schoolchildren, such as asthma, diabetes, and learning disabilities, many of which are either caused or exacerbated by environmental conditions. The movement has dealt with school siting (a challenge both for new construction and for existing facilities that have been sited on toxic landfills or brownfields, or adjacent to polluting facilities); material selection and construction; and heating, ventilation, and maintenance practices that affect indoor air quality, for example, toxic cleaning chemicals and pesticides (Center for Health, Environment, and Justice, 2002).

Boston’s experience in school health advocacy projects has, however, been unique in many respects. The partners involved in the Green Cleaners Project have included stakeholders not typically involved in school health issues, especially labor unions and labor advocates. The state context includes institutional support for toxics use reduction policies, and makes incentives available to groups working to implement such changes. Finally, a strong statewide coalition of community groups, environmental health advocates, and labor unions has worked to build legislative support for precautionary policies that favor the substitution of environmentally friendly products when available.

Alliances between labor unions and environmental organizations have faced formidable obstacles, typically articulated as a class divide that forces unions to choose between job security and occupational or environmental health. This has certainly not always been the case, however. Although there have been recent, high-profile examples of cases in which the pursuit of goals on the environmental agenda has threatened labor union jobs, there is a much older tradition of labor unionists and activists working together with environmental health activists such as occupational health specialists and sanitarians on issues of importance to both constituencies (Gottlieb, 2005; Gould, Lewis, & Roberts, 2004).
This article reviews the activities and strategies of the Green Cleaners Project to identify factors that led to the early success of this coalition and that may lead to its future stability as it continues its work on other aspects of its long-term agenda. We emphasize two key strategies: first, how the Green Cleaners Project team assembled a diverse group of stakeholders, and second, how they maintained cohesion by developing a strategic frame that merged concerns about a high-profile school health issue with a precaution-based message about managing school environmental quality. We argue that the deliberate invocation of the precautionary principle facilitated the construction of a frame that merged the individual and common interests of all stakeholders.

Although numerous other blue–green alliances have sprung up across the country in the past decade (Gould, Lewis, & Roberts, 2004; Mayer, 2004; Mayer & Brown, 2005; Obach, 2004), this coalition is unique in addressing school environmental health with the cooperation and involvement of environmental and community health advocates, labor unions, and school administrators, and thus displays a level of organizational complexity that blue–green coalitions frequently lack. We therefore highlight the role of “bridge builders,” who in this case negotiated a shared understanding between custodians, school administrators, and other stakeholders about the importance of eliminating toxic cleaning chemicals from the school environment. Although there are other healthy-schools networks springing up around the country, this is the first that we are aware of that includes the active and early cooperation of school custodians—the parties most directly responsible for managing school environmental quality on a day-to-day basis. Although this coalition could have been launched without their involvement and support, we argue that their involvement was critical in the successful transition to safer cleaning products, and that through their involvement in this particular project, they stand to make significant contributions to the implementation of the coalition’s long-term agenda.

BACKGROUND

In 1996, parents, teachers, and community activists raised a sustained protest over air quality in a Boston public elementary school. In response to the outcry over the health problems that were documented at this particular school, the Boston City Council ordered the school department and the Boston Public Health Commission to conduct semiannual environmental assessments at all Boston public schools. These inspections were not begun until 2002, and the first inspection report was released in 2004. This report found that 90% of Boston schools had at least one major environmental problem, such as structural leaks, poor ventilation, dust and mold, and pest incursions (Jan, 2004).

These issues are of particular concern because mold, dust, and pest dander all contribute to asthma and allergies, and because Boston has high rates of asthma among its student population and among teachers and other school employees. Asthma is a common chronic illness among schoolchildren and is the leading cause of hospitalization among children nationally. Nationwide, asthma accounts for an average of 14 million missed school days each year and results in some $9 billion in health care costs; these costs may be expected to rise, as asthma rates are increasing (American Lung Association, 2004). Asthma rates in the Northeast are higher than the national average, and school health records in Massachusetts
show that 9.2% of the children have asthma (Knorr, Condon, Dwyer, & Hoffman, 2004), a burden borne disproportionately by minority communities (Bloom, Cohen, Vickerie, & Wondimu, 2003).

Exposure to hazardous cleaning products in Boston’s public school system is a concern for administrative and custodial staff, teachers, students, and parents. Cleaning products commonly contain ammonium compounds, several of which are recognized asthmagens (Bernstein, Saunder, Bernstein, & Bernstein, 1994; Purohit et al., 2000). In a survey of health care workers in four states, including Massachusetts, cleaning products were the single most commonly reported occupational exposure linked to asthma (Pechter et al., 2005). Cleaning products are known to affect indoor air quality, a recognized factor in exacerbation of asthma (Shendell, Barnett, & Boese, 2004), which is thought to impact attendance and overall academic performance (Mendell & Heath, 2005). Thus, an unhealthy indoor environment in schools reduces the ability of staff to perform and the ability of students to learn, making the reduction of asthma in Boston’s public schools a priority for a wide variety of stakeholders with complex and often contradictory interests.

School health advocates in Boston recognized the enormity of the task set out for them, as permanent remediation of some of these issues documented in Boston schools would be time-intensive and capital-intensive. Along with the effort on cleaning product substitution, the citywide task force has worked for some time to encourage all of Boston’s public schools to adopt integrated pest management plans to reduce the use of toxics. Beyond these measures, however, lie environmental problems more closely related to the age of the building, the choice of school building materials, and their maintenance, which are more difficult and expensive to fix, especially when these problems are linked to mold, ventilation, and dust control. Despite these challenges, the health advocates working on Boston school health issues began with a strategic focus on substitution of cleaning products, stating that they believed it to be “low-hanging fruit,” that is, a problem that would be easy to identify, easy to reach agreement on, and easy to solve.

**State-Level Efforts to Foster Precautionary Policies**

Massachusetts has long been a leader in encouraging toxics reduction through statewide regulatory initiatives. The Toxics Use Reduction Institute (TURI), established in 1989 by the Toxics Use Reduction Act, has worked with state industries to exchange toxic substances for nonhazardous substances in a cost-effective and health-protective manner (Mayer, 2004; Mayer, Brown, & Linder, 2002). In 1996, TURI established the Toxics Use Reduction Networking (TURN) grantmaking program to help community organizations and municipalities develop toxics reduction programs (Toxics Use Reduction Institute, 2003). The following year, the state of Massachusetts passed a rule requiring all state executive departments to follow an environmentally preferable products (EPP) program designed to eliminate potential environmental and health hazards in state office buildings (801 CMR 21.00, passed April 18, 1997). Precaution-based approaches to eliminating toxic risks, such as those advocated by TURI and facilitated by the TURN and EPP programs, encourage preventive action by eliminating potentially hazardous substances without waiting for science to
demonstrate a clear link between exposures and negative health effects (Kriebel et al., 2001).

In addition to these official policies, this precaution-oriented philosophy has been embraced by the Alliance for a Healthy Tomorrow, a statewide coalition of community, environmental, and labor organizations which actively works to promote the substitution of toxic substances with safer alternatives in multiple arenas, such as industrial production, cleaning products, and consumer goods. The alliance was the first coalition in the United States to promote the precautionary principle (Mayer, 2004), which has four central tenets: taking preventive action (even in the face of uncertainty about the scope and extent of adverse events associated with exposures); shifting the burden of proof to the proponents of an activity; widening the range of alternatives assessed; and increasing public participation in decision making (Kriebel et al., 2001).

Part of the Alliance’s success as a labor–environmental coalition originates from its focus on a connection between environmental health and occupational health. Recognizing that toxic materials to which labor union members are exposed in the workplace are very often the same toxic substances that leak into neighboring communities and the environment, the Alliance is part of a growing style of blue–green coalition that emphasizes the importance of protecting human health both in the workplace and the environment (Mayer, 2004; Mayer & Brown, 2005). In comparison, previous attempts to bridge the divide between labor and environmental organizations that sought to address issues such as global warming or energy policy ultimately failed to find a common ground and ended in dissolution of the coalition (Obach, 2004). By focusing on health as a central link between blues and greens, coalitions like the Alliance are forming long-lasting relationships that include a more diverse representation of environmental organizations, including environmental health and environmental justice organizations. As members of the Alliance, both MassCOSH and BUAC carry with them this tradition of emphasizing the link between the workplace and the environment. Furthermore, in their collaboration with the custodians’ union in the Green Cleaners Project, MassCOSH and BUAC sought to establish a similar type of solidarity.

Politically, the Alliance lobbies for the passage of legislation requiring the substitution of certain hazardous substances when safer products are available and cost-effective. A pending piece of legislation, the Safer Cleaning Products Bill, is specifically designed to reduce asthma and other health threats from toxic chemicals in cleaning products by requiring schools, hospitals and other health care facilities, day care centers, public buildings, and public housing to use greener alternatives.

The Green Cleaners Project can be seen as a test case, for if it is feasible for a bureaucracy as large as the Boston school system to amend purchasing strategies to adopt safer cleaning products, then it should also be possible for other large organizations. Several organizational members of the Green Cleaners Project team are also members of the Alliance, and have linked their advocacy for implementation of safer cleaning products in the Boston schools to the statewide campaign for passage of the Safer Cleaning Products Bill. By building on this legacy of state-level efforts to foster precautionary policies, the Green Cleaners Project team benefits from the experiences and resources of organizations such as TURI and the Alliance, as well as a small but significant base of state support for antitoxics programs.
School and Health Advocacy in Boston

The Green Cleaners Project team is a special subcommittee of a citywide task force dedicated to remediating the school environmental problems identified in the 2002 environmental assessment inspections. This task force, known as the Healthy Boston Schools Project, initially comprised members of BUAC, MassCOSH, the Boston Public Health Commission, and the Boston Public School Department of Facilities Management. In the fall of 2004, BUAC was awarded a TURN grant from TURI, to review cleaning chemical policy in Boston schools. In consultation with a MassCOSH project director, the BUAC director decided to use the citywide task force as the base committee for this review, with the addition of representatives from the Boston school custodians’ union and the school department’s purchasing department. The Green Cleaners Project team thus represented various constituencies, each with a different perspective on, and different responsibilities for, school environmental quality. In light of those diverse perspectives, the internal cohesion of the diverse Green Cleaners Project team depended largely on the role of key individuals who play multiple social roles that often crossed movement boundaries.

These “bridge builders” are individuals who, by their unique location at a nexus between two movements or organizations, are able to communicate across movement divides (Robnett, 1981; Rose, 2000). In this case, bridge builders were critical to recruiting the support of a broad coalition of stakeholders, and in constructing an overall frame that would connect the common interests between labor and environmental organizations. Work on blue–green alliances nationally has highlighted the capacity of Committees on Occupational, Safety, and Health (COSH) leaders to function as key bridge builders (Obach, 2004, p. 226), and in this case, MassCOSH naturally assumed that role.

MassCOSH, like other COSHes nationwide, advocates for health and safety protection and social justice for workers (Berman, 1981). In this capacity, they often work closely with union leaders, but also engage directly with workers, community groups, and health, safety, and environmental advocates. They also represent nonunionized workers, as a surrogate union, at least with respect to issues of workplace health and safety (Gottlieb, 2005). Nationally, COSHes were established in the early 1970s during a time of declining union strength, when many unions needed to shift their focus from health and safety concerns to protecting wages and job security (Berman, 1981). They readily maneuver among organizations such as unions, management, and academia, and thus encourage cooperation among partners who might not otherwise collaborate (Gottlieb, 2005).

Founded in 1997, BUAC has sought to “promote collaboration between organizations and residents concerned about the various factors that affect asthma, such as the environment, quality of health care, access to health care, and education” (BUAC, 2006). BUAC’s school subcommittee comprises parents, teachers, and school department employees, and has developed a healthy-schools platform that addresses conditions that may exacerbate asthma, such as building maintenance. Whereas most interventions addressing childhood asthma focus principally on treatment and management, BUAC takes a more comprehensive approach to address environmental causes and triggers. Like the multiple stakeholders involved in various projects run by MassCOSH, BUAC’s approach encourages cooperation throughout multiple levels of the public school system, including school administrators, teachers, principals, custodians, and staff.
Although this coalition may appear to not involve any conventional environmental organizations, the changing face of the environmental movement has led to the emergence of groups such as BUAC, which have an explicitly environmental agenda and who coordinate many activities with environmental health and environmental justice groups in the area. Indeed, this “new conventionality” of environmental organizations is partly what allows for such new forms of blue–green coalitions.

Custodians in Boston public schools are organized through Local 1952 of the International Union of Painters and Allied Trades (District Council 35), representing approximately 400 full- and part-time custodians. Although the union president describes his current working relationship with the school department as cooperative and communicative, relations between the school department and the union have been difficult. Lacking the organizational resources necessary to support a full-time health and safety committee, the custodial union worked in the past with MassCOSH to address their occupational health and safety concerns. In the early 1990s, the school department laid off approximately 50 custodians, and forced a “best and final” contract on the union in 1996 that granted the school department the right to contract out custodial labor. In 2001, the school department proposed cutting more positions, leaving some small schools without a custodian on the day shift. During this round of negotiations, BUAC and MassCOSH became concerned about the impact that custodial staffing reductions would have on school environmental quality (especially with respect to waste management and integrated pest management), and collaborated with the custodial union president in an effort to preserve these jobs. This attempt to forge a new relationship between BUAC and the custodial union, with MassCOSH continuing to provide assistance, paved the way for the subsequent collaboration on substituting green cleaning products. The combination of BUAC and MassCOSH’s organizational resources and experience in previous interactions with state environmental policies and city-level politics made them appealing as potential coalition partners to the custodians. By identifying the protection of custodial jobs as part of a larger mission to improve school environmental quality, activists at BUAC and MassCOSH began to frame the issue of school environmental health in a broader context, establishing the groundwork necessary to incorporate a language of precaution into a campaign that otherwise would have been simply about deciding which cleaning products to use.

**Framing School Health and the Logic of Precaution**

This case study of multiorganizational advocacy for product substitution provides a window into how organizations negotiate a precautionary approach toward hazardous substances. Massachusetts provides institutional support for organizations to embrace toxics reduction, and there is a groundswell of popular support through the Alliance to pass further legislative initiatives. Nevertheless, persuading individual organizations to shift to healthier cleaning products requires stakeholders to reach a common understanding of potentially risky exposures and agree on a range of acceptable solutions. Although the coalition partners certainly benefited from certain favorable political opportunities and were able to mobilize diverse resources in organizing their campaign, there is still tremendous value in examining the discursive and rhetorical tools they used to align the concerns of such a diverse group of stakeholders and in how they
maintained the frame to keep the partners together, as they build from the early success on this first project to future objectives on their long-term agenda. The Green Cleaners Project developed a two-stage process to first demonstrate the gravity of a specific health problem, and then link its mitigation to an overall strategy of precaution. In doing so, they employed different rhetorical or discursive strategies that matched different aspects of the logic of the precautionary principle to the needs and interests of all stakeholders.

Framing is a process by which social movement actors construct and maintain a common identity or arrive at an agreed-on set of meanings that give purpose and direction to the existence and actions of a social movement organization (Benford & Snow, 2000; Della Porta & Diani, 1999). Collective action frames are produced by social actors at various levels, from individuals to organizations to coalitions (Croteau & Hicks, 2003). When stakeholders from multiple social movement organizations work collaboratively on a social problem, a process of interorganizational frame alignment must take place to negotiate differences in the construction of meaning that exists both at the intermovement and intramovement levels (Benford & Snow, 2000). Whereas individual social movement organizations use the strategy of frame alignment to merge the concerns of individuals into an organizational frame, coalitions use frame alignment to merge the concerns of organizations into a coalition frame. If successful, the coalition frame integrates the needs and concerns of actors at multiple levels: individuals, organizations, and the coalition itself (Croteau & Hicks, 2003).

The literature on social movements and collective action contains few case studies on the actual process of frame construction, and tends to treat frames as static elements used by social movement actors to accomplish their goals. In cases that involve the construction of coalition frames, the process of aligning diverse identities and goals is particularly challenging and requires specific attention. The differences in identity and purpose between labor unions and environmental organizations typically act as an ideological wedge that drive apart the interests of the groups, and may explain some of the more recent problems that have surfaced in sustaining blue–green coalitions (Obach, 2004). The alliance has used the frame alignment strategy of frame bridging (where ideologically congruent yet structurally divergent frames are linked) to connect elements of environmental health and occupational health and safety frames. In linking environmental and occupational health, the larger coalition is able to draw on organizational and political support from both movements in a fundamentally new fashion. Because many of the participants in the Green Cleaners Project team were also members of the Alliance, this health approach was a familiar strategy to them.

Frame bridging requires movement actors to agree on a common goal in aligning their diverse movement frames (Benford & Snow, 2000); this requires specific and explicit kinds of rhetorical work about a movement’s goals and strategies. The Green Cleaners Project team’s use of framing has both strategic and discursive properties. Strategically, the frame alignment technique of bridging connects the interests of environmental actors and the custodial union with a strategic purpose of implementing the pilot project. It also has important movement-building implications, fostering ties across movement boundaries. In this way, the Green Cleaners Project is an example of how a social movement organization can have specific strategic goals that are reflected in a larger discursive project.
Because the Green Cleaners Project is a coalition of diverse partners, framing must also attend to the potential disconnect between individual organizations’ strategic goals and the larger goals of the coalition. Furthermore, the strategic and discursive elements of a collective action frame, especially in the context of a coalition, are not always perfectly aligned. In the Green Cleaners Project, some tension arose between partners over the best methods of reaching the strategic goal of reducing asthma. Also, as we shall see, some stakeholders expressed skepticism about the larger discursive project of broadening the dialogue to include the logic of precaution. There was, in particular, disagreement about the extent to which the project members should invoke health problems as a rationale for endorsing a change in cleaning products, with some school administrators expecting proof of health benefits to justify a change, and the union president being reticent to imply his members might face health consequences from past exposures.

Finally, although frame bridging created a strategic opportunity to bring together specific stakeholders to facilitate a particular initiative, BUAC and MassCOSH also initiated this campaign in hopes of fostering a larger, more comprehensive project to address thornier problems of school environmental quality (e.g., mold, integrated pest management). They knew that for a longer-term effort to be successful, it would require building relationships between diverse actors and helping the partners appreciate that a broader agenda about school environmental quality could be incrementally advanced through short-term projects like substituting toxic cleaning products in schools with safer alternatives.

**METHOD AND PROGRAM EVALUATION**

The Green Cleaners Project team began by assessing products used for general cleaning, floor care, and graffiti removal. Products were screened for potential health and environmental impacts. Nine of the 17 products had potential carcinogenic, teratogenic, or corrosive effects, and were identified as candidates for substitution. Based on this information, the project team developed a pilot plan for the substitution of these products with “greener” alternatives.

Many of the major chemical companies that produce cleaning chemicals and janitorial supplies now also provide green formulations of their regular product lines. The school department purchasing agent contacted the two companies that Boston schools regularly purchase from and ordered the “green” version of all cleaning products currently used in Boston schools. A team from the facilities management department then visited the four pilot schools and removed all of the conventional formulations of the cleaning chemicals and replaced them with the new formulations. In the summer of 2004, custodians working in these schools received training in the proper use of these chemicals. Although the corporate representatives of the top cleaning product companies offer training sessions to assist in the adoption of the new products, several custodians felt these corporate-sponsored training sessions to be brief and of only limited relevance in addressing the cleaning issues actually found in school environments. With no mechanism for feedback between the custodians and product manufacturer, custodians sometimes modified the application of the green products to obtain better results and meet the demand for cleanliness. This may, however, compromise the “green” qualities of the products or compromise product performance, if it involves
applying products in heavier concentrations than the manufacturer recommends. To assess how school custodians were incorporating the green products into their cleaning regimen, the Green Cleaners Project team monitored the pilot program to gauge product efficacy and to make recommendations concerning the further use of green cleaning products. This evaluation included a paper-and-pencil survey administered to custodians in the pilot schools to gauge the performance of the substitute products and custodial satisfaction.

The Green Cleaners Project team asked the authors to conduct a qualitative evaluation. Twelve semistructured interviews, ranging from 45 to 60 min in length, were conducted between November 2004 and February 2005 with members of the pilot team and with custodians and principals at the pilot schools. Questions covered the origins of the project, the rationale for the pilot project, expectations for evaluating the program’s overall effectiveness, custodial satisfaction, and the cooperative dynamics and challenges that coalition members has thus far experienced.

Interviews were coded and analyzed for the major themes of this project (Lofland & Lofland, 1995). Coding began with a preestablished set of codes, drawing on themes found in a review of the literature on school environmental health and blue–green coalitions. As analyses proceeded, the code list expanded to include themes and issues that arose during the interviews. The overall list of codes thus gradually evolved to include topics related to framing of the health message, brokering of negotiations, and other major themes of this project. Transcripts were analyzed by the first and second authors during the construction of the draft manuscript.

Although the research presented in this article involves a single case study, it draws on a broader project investigating the formation of labor–environmental coalitions in the United States (Mayer, 2004; Mayer & Brown, 2005). Whereas most successful labor–environmental coalitions address more industrial and more broadly defined environmental issues, the Green Cleaners Pilot Project is the first foray of the blue–green model into an institution like education. Thus, this case study provides important insight into new arenas where diverse stakeholders might be brought together to address concerns with protecting human health and the environment. However, because this type of collaboration between custodians, environmentalists, and children’s health activists is rare, we are limited in the extent to which we may generalize from this study until further examples can be identified and analyzed.

RESULTS

The Green Cleaners Project team succeeded in persuading school administrators to shift to green cleaners for two main reasons. First, they successfully bridged the typically oppositional concerns of multiple and diverse stakeholders, effectively neutralizing those that might have made such a project insurmountable. By enlisting the custodial union as participants in the pilot project, the Green Cleaners Project team was able to convince the union that the initiative to switch cleaning products would not threaten jobs and would strengthen the union’s efforts to garner increased attention to worker training and secure a participatory role in making decisions about their work environment. The coalition thus strategically circumvented potential opposition to environmental initiatives.
that might have arisen in the form of a “jobs versus the environment” conflict. Second, the Green Cleaners Project team developed and maintained a strategic frame for this project that unified the health concerns of school staff, environmental health activists, and the custodians’ union under the umbrella of the precautionary principle. The rationale for the project ultimately addressed both the community and school health activists’ concerns for health and school environmental quality, and the workers’ concerns about worker safety and training. These two strategies helped to secure the participation of the major stakeholders in this coalition, and have laid the groundwork for future collaborations among this team on other issues in school environmental health.

**Bridge Building: Enlisting Custodians in Protecting School Environmental Health**

MassCOSH’s organizational role was vital to the Green Cleaners Project. The MassCOSH program director is a founding member of BUAC and also heads the BUAC school health committee and chairs MassCOSH’s Healthy Schools Network. Through her involvement with the MassCOSH and BUAC school health committees, the program director has extensive knowledge of the environmental issues present in Boston schools, and had strong personal contacts with key decision makers in the school administration and the leaders of the teacher and custodial unions. Her past interaction with members of the custodial union and its president prior to the establishment of a coalition helped establish the communication necessary for the successful bridge building. Her involvement in the Alliance allowed her to leverage the logic and discourse of precaution as a central element in the construction of the coalition frame, and her leadership in the Alliance and in the statewide Healthy Schools Network gave her the means to link this local campaign for school environmental health to wider initiatives at the city, state, and national levels. Thus, from the onset, the Green Cleaners Project benefited from a favorable structural position in regards to city and statewide politics, both in terms of access to political elites and in familiarity with advocacy efforts driven by the networks established in one of the state’s most visible environmental coalitions.

The MassCOSH project director was well aware that the custodial union needed an advocate to help it gain more attention from the administration for worker health issues and greater support for employee training. On their own, the custodial association lacks the bargaining power to prioritize health, as job security and wages are paramount. The custodial union president had first met the MassCOSH and BUAC organizers at citywide hearings that were held when the school administration proposed eliminating school custodial jobs. The union president expressed his members’ longstanding frustration in their efforts on the job in the face of continued position cuts. He noted, for example, that his members bristle at the use of the term “dirty” to describe the schools, because it is, quite literally, their job to keep the schools clean:

> When people walk into a building and they see like, the plaster falling down and stuff, they perceive that as being dirty, so they blame the custodian, so we should be involved to really explain what the problem is, instead. Because people just see certain things and say, “Oh, that’s dirt.” But what’s causing that?
The MassCOSH project leader agreed that people are often careless in attributing responsibility for such conditions, and believes that people should not overlook structural or organizational factors that exacerbate such conditions. For example:

There has been a lot of shuffling around and staff reduction, too. . . . Some of the small schools didn’t have custodians for some of the key hours of the school day, so if a kid threw up, the teacher either threw something, like that kitty litter stuff on it, and they would call a floater custodian to come and clean it, or it would wait until they had their part-time person after school come and clean it. And we just felt like that was a public health problem.

The custodial union has thus been engaged in an ongoing struggle to gain appropriate recognition for the structural problems that contribute to school environmental quality, such as staffing, funding, and capital plans for building maintenance. The union president appreciated MassCOSH’s support at these hearings to help him hold the line against further job cuts, and was therefore willing to work with them on the Green Cleaners Project because he perceived MassCOSH as an important external advocate who could augment the union’s efforts to protect jobs, as well as advocating for members’ health and the need for increased worker training.

The school department’s decision to shift to green cleaners ultimately included a renewed commitment to worker training, and an agreement to form a standing committee for the periodic review of cleaning chemical use in schools, including a representative from the custodial union. School administrators interviewed for this project reported that the chemical manufacturers all offer a range of products that changes frequently, including recent introductions of green formulations of most of the common cleaning chemicals. At the outset of this project, they reported that they had changed product formulations frequently in the past, but never before had sought input or feedback from the union members in this fashion. These two provisions were thus significant victories for the Green Cleaners Project team. Although janitorial work has historically been considered semiskilled labor, over the past several decades, as the global economy has tightened labor markets and more and more firms have contracted janitorial services out, the very nature of the work has been transformed into low-skilled, low-wage “dirty” work. The reliance on part-time and unskilled laborers has often driven contract cleaning companies to select chemicals based on their potency and efficacy, in an effort to curb costs by avoiding the need for worker training (Gottlieb, 2001).

In this case, the evaluation of green cleaning products at the pilot schools included several types of qualitative assessment with respect to product performance and the role of cleaning products in custodians’ job satisfaction. Several custodians identified practical barriers to implementing green products, most notably lack of equipment or insufficient training. The custodial union president had complained frequently that the training offered by the school department was inadequate and often irrelevant. In his view, training programs often consisted solely of a sales pitch offered by a company spokesperson, sometimes for a piece of equipment that is never ultimately purchased for use in schools.
The product evaluation conducted during the pilot program indicated some dissatisfaction with several of the new products, but on closer inspection, it was discovered that the custodians were using the products inappropriately (e.g., at full strength, when the product should have been diluted). This highlights the importance of active participation by the labor union in decisions about product substitution and the need for training to make sure workers are applying products correctly. Management typically resists requests for training among custodial workforces, because it wants to deskill the work and to justify harsh labor practices and low pay. Efforts by workers and labor activists to garner training for custodial workforces is therefore not motivated purely by concerns about occupational health, but may also be seen as an important effort to defend custodial work as semiskilled labor, and thus to restore the dignity of the workers and their right to a living wage (Gottlieb, 2001; Salzinger, 1991). MassCOSH and the union made demands for worker training and worker input into chemical performance and selection an integral part of the overall campaign from the outset. This highlights the importance of MassCOSH as a bridge builder in this example, because their presence as a strong and well-established labor advocate on the project team brought a strong prolabor voice to the table.

Throughout the pilot evaluation, participation in decision-making processes remained a significant issue. School administrators preferred to see the review of cleaning products as a case of top-down decision making, whereas other partners, like MassCOSH and the custodial union, pressed for greater involvement. In the words of one school department official, the discussion of shifting to green cleaning products has prompted further discussion about school cleaning chemical policies “among ourselves, which is probably where it belongs anyway.” Although it is true that the school department switched cleaning chemicals in the past, it is not at all clear that they would have undertaken this review of the possible health and safety effects of cleaning chemicals without significant pressure from the other members of the Green Cleaners Project team. The custodian association president rather pessimistically stated that regardless of the decision made about the Green Cleaners Project, custodians would have to use whatever products the school department provided. This was echoed by the custodians in the pilot schools, who universally indicated that they had no choice in product selection. Without the advocacy from the BUAC and MassCOSH partners, it is unlikely that a call for a review of cleaning products would have arisen from the workforce or been heeded by management. In some respects, then, the greatest success of the Green Cleaners Project team may have been the way they fought for a significant voice for employee input.

One of the primary ways in which bridge building operates is through communication, and in particular, by linking together multiple systems of language—in this case translating across the labor–environmental divide. Because of MassCOSH’s involvement with both movements, they were able to persuade the union of the benefits of adopting a precautionary framework for school environmental health, not so much on the strength of the precautionary principle’s claims about alternatives assessment and product substitution, but because of the way it democratizes decision-making processes about toxic exposures. This element of the precautionary principle appealed to the strategic needs of the custodial union in bargaining for training and participatory opportunities, and was instrumental in enlisting their support for the project.
Maintaining a Comprehensive Coalition Frame

Framing is essential for a social movement organization to effectively communicate its goals, both among its membership and to the political decision makers who influence whether a particular campaign is successful or not. For cross-movement coalitions such as labor–environmental partnerships, identifying common ground is especially important. Thus, collaborations that link diverse organizations often take modest, initial steps that appear feasible in the short term to demonstrate the potential of a long-term collaboration. The Green Cleaners Project team leaders articulated this strategy consciously, stating that they perceived the use of hazardous cleaning chemicals in schools to be a “low-hanging fruit,” or an easily identifiable problem with a simple and agreeable solution. By focusing initially on a high-profile school health problem such as asthma, and targeting the substitution of greener cleaning chemicals as a proposed solution, the Green Cleaners Project team sought to create a solid base for a coalition that would integrate the concerns of school administrators and teachers, custodians, students, and parents around a precautionary approach to school health issues, and that would lay a foundation for future campaigns to improve school environmental quality.

The project leaders began their framing efforts by introducing potential stakeholders to the significance of asthma as a school health issue, suggesting that traditional cleaning products presented hazards to both school employees and students. However, data that link product substitution and improved health are sparse. Framing the green cleaner intervention project around asthma as a sentinel health issue inadvertently drew attention to these data problems and created some difficulties in getting all parties to agree on a common set of evaluation criteria. Thus, project participants faced a challenge in establishing clear evaluation standards and setting goals that would show how switching cleaning products would clearly advance the overall goal of improving school environmental health. These data gaps frustrated the larger work of creating an impetus toward a discursive shift in how students and school staff perceive the relationship between health and the environment.

Several members of the project team, for example, said that they thought the ultimate decision about whether the school system should shift to green cleaners should be made on the basis of whether there was an actual reduction of asthma among students in the pilot schools, but that if such data were not available, cost-effectiveness should carry the day.

The project leaders had hoped to sidestep controversies over lack of quantitative proof of an improved outcome by including in the framing of the project an orientation toward a broader prevention-based, or precautionary, approach. Although they believed they had oriented everyone involved to a precautionary stance and established this discursive shift as the ultimate goal of the project, several members of the committee (especially the school administrators) persisted in the belief that because the project had begun with a specific discussion of asthma as a school health issue, they should expect quantifiable evidence that the program was working to improve asthma outcomes. This problem persisted despite repeated cautions from other members of the project team that the project did not include monitoring for a decline in asthma incidence. These misconceptions suggested that not all team members had grasped both the strategic and discursive elements of the framing of the problem as a significant health issue that would be addressed through precaution-based policies.
There was also some disagreement among members of the project team about whether the potential health risks associated with cleaning products should be the chief articulation of the coalition's central issue. Although the two women leading the project (representing BUAC and MassCOSH) wanted to maintain a focus on health, the custodial union president expressed some concern: 

If it’s an issue, I have no problem making it major issue, but if it’s not an issue, I don’t really want to scare people about it. But I think if we just explain that in the long term, these chemicals will be healthier, easy to use, you don’t have to worry if you spill it on you. I mean, some of the chemicals, like the strippers, if you put it on your hand and didn’t wash it off, you got a burn. Stuff like that. If you use different chemicals, you might not have to worry about that.

This ambivalence represents a legitimate concern on the part of workers, given that some of the union members have worked with these potentially hazardous products for a long time, and the union head may not want to raise concerns about past exposures. In this case, however, the union president supported the product substitution effort because the broader discursive framing of the campaign included the democratizing principle of participation in decision making, which is also a core element of the precautionary principle (Kriebel et al., 2001). It is worth noting, however, that the union president reported a shift in his attitude over the course of the project. After the school department announced that they would shift to green cleaning products, he reported his pleasure with this outcome, and that he appreciated the assistance received from MassCOSH and BUAC in this project. On seeing how powerful health messages and a precautionary approach can be in articulating problems, the union president’s attitude shifted toward being more open to seeking the cooperation from other healthy-school advocates in a collaborative fashion.

The union president’s initial ambivalence about a strong health message may have been communicated to the custodians, however, when they were trained in using the new products. When the custodians in the pilot schools were interviewed and asked why they thought the school system had shifted to these newer cleaning products, two recalled having been told that these products were safer or healthier for themselves and the students; the other two replied that they thought the shift had been made to save storage space or because they were cheaper. The two janitors who recalled the health-based rationale for product substitution also had the most favorable impressions of the new products. One of these custodians has asthma, and appreciated the new products because, unlike previous products, they did not induce wheezing. In contrast, the two custodians who believed the shift had been made for nonhealth considerations were more critical of the products’ performance, and indicated that they thought that decisions on shifting to green cleaners should be made on the basis of cost. If custodians were confused or unclear about the importance of health in making the shift to green cleaners, it may have reduced their subjective assessment of the new green cleaning products, as their application often significantly differs from traditional products and requires more physical labor.

The connection between the strategic aims of the cleaning products substitution project and the discursive project drawing attention to school environmental health problems was thus perceived best by individuals who were themselves
suffering from health problems. Custodians who suffered from asthma were more likely to connect the project with the larger goal of improving health, whereas custodians who perceived themselves to be in good health and otherwise unaffected by the traditional cleaning products viewed the pilot project as a simple administrative shift in the type of materials they were instructed to use. This suggests that personal experience may mediate the acceptance of a coalition frame, indicating that organizers should be attuned to which parts of the frame or message need to be made explicit.

This challenge of constructing a coalition collective action frame demonstrates that even when all parties have a stake in creating and maintaining a healthy school environment, they may approach this problem from different angles, with different understandings of the scope of the problem, and different goals for remediation. More opportunities for engaged and participatory discussions of environmental quality early in the process could have helped clarify the goals and positions of all stakeholders, the enumeration and prioritization of environmental problems, and the development of a plan that satisfies the interests of all stakeholders. Candid and frequent discussion of how short-term projects relate to overall long-term strategies are also important, so that short-term projects are evaluated and assessed with an understanding of how they are relevant to longer-term goals.

DISCUSSION

This alliance of environmental health and labor activists, workers, and school administrators is a potential model other school districts may follow to foster a healthy environment for students and staff. By building a coalition among a wide variety of stakeholders, all of whom have a material interest in managing school environmental quality, the project leaders were able to mitigate or neutralize ideological divisions that have traditionally scuttled cooperative efforts between labor and environmental movement organizations. The participation of such a varied group of participants demanded the construction of a robust coalition frame. The precautionary principle ultimately filled this need by meeting the needs of the environmental health activists’ interest in product substitution, but also fulfilling the union’s wish that negotiations include specific attention to worker training and the right of workers to participate in decisions about the chemicals they will use on the job. This project also represents a creative approach to addressing school health issues in a concrete and systematic way that sets a precedent for future decision making based on a philosophy of precaution. The Green Cleaners Project team provides a model for building new forms of labor–environmental coalitions, with bridge-building organizations (such as MassCOSH) occupying a critical role in mediation.

The project leaders were careful in how they framed the issues in this project, first by selecting a high-profile health issue such as student asthma to stimulate a wider debate about school environmental quality, and second, by invoking a philosophy of precaution as a means to mitigate the problem. This strategy was successful because it allowed project leaders to first gain the attention of school officials by invoking a well-documented student health problem, and then allowed them to fold in a latent concern about the effect of cleaning products on worker health. It is unlikely that the custodial union would have been effective in
challenging decisions about the selection of cleaning products because of their relatively weak position and their need to emphasize job security.

The second strategy, framing the issue from a precautionary standpoint, allowed the project team leaders to sidestep problems of demonstrating improved health outcomes in the absence of quantifiable data. However, a tension emerged between the more strategically oriented frame of reducing asthma and the broader discursive framing that emphasized the need for precaution-based environmental health policies. Despite this tension, the broader discussion of addressing school environmental health problems by first tackling questions about product substitution allowed project leaders to link this campaign to larger campaigns at the state and national levels that invoke precaution as a rationale for improving and protecting school environmental quality.

This case study demonstrates that constructing a coalition frame that is broad enough to address and support the individual and common needs of a variety of organizations is a delicate process, and points to some clear deficiencies in theories of frame development and maintenance. The project leaders relied on the logic of the precautionary principle because they believed that three of its four central tenets (presumptive preventive action, alternatives assessment, and democratic decision making) could work to unify the disparate needs of the coalition partners. In practice, this meant that they relied on some elements of precaution in conversations with some coalition members more so than with others, especially in the early, crucial stages of coalition formation. It is important to note, however, that not all coalition members readily embraced all elements of the principle (the union president was initially hesitant, and the school administrators were particularly resistant throughout the process). This could be seen as an incomplete attempt to bridge the frames of the coalition partners, although the coalition was ultimately successful in attaining its goal of product substitution. Theories of frame bridging and alignment need to be expanded to help us understand how and when coalition partners activate or rely on strategic or discursive elements of the frame in bringing coalition partners together. More theoretical work is also urgently needed to help us understand under what circumstances a coalition can persist and succeed, even if all members have not embraced all elements of a complex frame, and under what circumstances an incompletely bridged frame can scuttle the coalition’s efforts entirely. Though we have stressed the importance of framing over more structural elements in our analysis of this case study, building solidarity between labor and environmental organizations involves both finding a common ideological frame and the structural means to work together. By building ties through the promotion of the precautionary principle, the coalition leaders tied the concept of prevention to the more concrete goals of democratic decision making and increased worker and community control over working conditions.

MassCOSH’s involvement as a bridge builder was critical for enlisting the support and participation of all stakeholders throughout the process. This had three practical implications for the success of this project. First, the project team leaders pressed the school department for a commitment to train custodians in the proper use of new products. The custodial union had long demanded improved training for its workers, but had needed to subordinate these demands in their efforts to protect jobs and wages. Second, the formalization of this alliance, through the citywide school health task force, provides a mechanism for detection of health
problems in the schools in the future, and a forum in which these problems may be discussed and solutions may be entertained. This was a key goal of the coalition that went beyond their short-term considerations about product substitution and instead instituted a process whereby future discussions about school environmental quality might include the stakeholders most directly affected. Finally, the cooperation of the custodial union with labor advocates and environmental health activists has laid the groundwork for future collaborations in which custodians can assist their allies outside the school by documenting the persistence or emergence of new environmental problems that threaten school environmental quality. Although there are other healthy-schools programs around the country, the Massachusetts healthy-school project is among the few that includes custodial unions as core partners.

Although the metropolitan Boston area is fairly affluent, many of the public schools involved in the Green Cleaners Pilot Project suffer from the lack of funding common to schools across the country. As existing school infrastructure continues to deteriorate, school environmental quality will become an increasing priority for schools nationwide. The model of collaboration between diverse stakeholders adopted in Boston can serve as an example for other health and safety activists to follow. As Gottlieb (2001) argues, concerns about health and safety with regards to toxic exposure are becoming increasingly important for service sector workers, both unionized and not. Facing shrinking numbers of unionized workers, labor unions and worker organizations have begun to seek out new issue areas to emphasize in organizing campaigns (Clawson, 2003), with health and safety and the environment becoming increasingly central issues (Gould et al., 2004; Mayer, 2004; Obach, 2004). Promoting the substitution of green cleaning products for toxic chemicals taps a set of concerns that is broader than health and safety. By arguing that workers who are exposed to hazardous products on a daily basis should have a voice in making decisions about the selection of such products, campaigns such as the Green Cleaners Pilot Project are also advocating for worker empowerment and an equal role in decision making.

That said, this program also highlighted some very important pragmatic challenges and pitfalls that may beset blue–green coalitions, or school environmental health coalitions more generally. Although this team had some success in integrating the concerns of school administrators, custodians, and environmental health groups, some stakeholders were absent from the discussions. Other school employees, such as the kitchen workers, have direct involvement with the implementation of cleaning programs in schools, and problems may arise if they are not aware of and properly trained in safe use of cleaning products. Moreover, other school employees, such as teachers, play an important role in compliance with green cleaners programs and should be made aware of new policies as they evolve. Finally, parents are potentially powerful advocates for school health issues. BUAC has been particularly successful in enlisting parent advocates—training them to testify in support of various pieces of legislation, for example. Parents should be briefed on the green cleaners program so that they can advocate healthier school policies at both local and statewide levels. Although including additional stakeholders in the process could serve to complicate the decision-making process, it could also serve to strengthen awareness of school environmental problems and to enhance the entire community’s commitment to school environmental health.
This report on a single case has raised some provocative questions about the importance of bridge building and framing strategies that may be useful for blue–green coalitions or for coalitions working to address problems of school environmental quality. This work suggests that the precautionary principle has the potential to be a flexible enough frame to meet the needs of environmental health activists while also fulfilling labor’s desire for participatory decision making in issues pertaining to occupational health and social justice. This work also highlights the importance of bridge-building organizations in mediating the formation of coalitions, especially ones that include labor activists and labor unionists. Our analysis here may offer approaches to examine the more complex coalitions, which often involve more partners than typical blue–green alliances.

More work is needed to determine how, whether, and when coalitions decide to adopt the logic of precaution, how it affects the composition of the participating members of the coalition, and how it contributes to their success. The precautionary principle has been used by diverse other coalitions that have brought together what might be seen as unlikely allies. For example, in San Francisco, a coalition that included environmental justice groups and breast cancer activists succeeded in passing the nation’s first municipal law to use the precautionary principle for public purchasing. In comparison to the green cleaners project, the issue is different, and the level of engagement is higher. Yet it does speak to the potential for this new paradigm to bring together groupings previously thought unlikely. That is one of the powerful lessons of our case study.

REFERENCES


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