I. INTRODUCTION

Despite being one of the most vital, innovative and integrative subfields within contemporary sociology, the study of social movements confronts major problems. Much contemporary work relies on temporally-limited case studies, which, despite major virtues in terms of depth and insight, often lack analytic controls (Klandermans and Staggenborg 2002; Andrews and Edwards 2004). While giving lip service to the need to examine social movement organizations (or SMOs) in the context of the broader mobilization of support and collective action, most research focuses exclusively on SMOs (typically limited to one or a few SMOs), collective actions, or cultural framing processes, rarely bringing these together to provide a more integrated understanding of movement mobilization. Critics of resource mobilization theory have driven home the need to incorporate cultural perspectives into the analysis of social movements (e.g. Larana et al. 1994; Melucci 1989, 1996; Jasper 1997; Buechler 2000) but, as of yet, there is little empirical work bringing cultural analysis to bear on questions of long-term change in mobilization (but see Rochon 1988, Cress and Snow 2000; McCammon 2001; Lounsbury, et al. 2003). Although political opportunities have long been shown to be critical to the emergence and outcomes of movements, critics point out that the concept is often applied in an ad hoc fashion, is fluid and imprecise, neglects subjective and negotiated processes, and is rarely balanced by attention to the potential mobilizing impact of political threats (Gamson and Meyer 1996; Goldstone and Tilly 2001; Goodwin and Jaspers 2003; Meyer 2004). Equally telling, critics argue that the conceptual boundary setting off social movements from the study of interest group organizations and institutional politics is imprecise (Meyer and Tarrow 1998; Andrews and Edwards 2004) or even non-existent (Burstein 1998).

We address these issues by analyzing the long-term mobilization of the environmental movement in the U.S. over the past century. We focus on three interrelated dimensions of mobilization: (1) the production of new discursive frames; (2) SMO development; and (3) collective action. Perhaps “the most comprehensive and influential movement of our time” (Castells 1997: 67), the environmental movement has been an active force in American society and politics since at least the last quarter of the 19th century. Emerging initially during an era in which national federative associations were prominent in U.S. civic life (Skocpol 2003), the organizational side of American environmentalism has grown enormously in the past three decades. From our recent work estimating the growth of environmental SMOs, the period since 1970 has seen the founding of over 1,500 new SMOs operating on the national political stage (see Figure 1 below). Environmental discursive frames have entered the public arena with a major outpouring of environmental books and publications (Sale 1992; Brulle 2000, 2003). Collective action in the form of protests, lobbying and other attempts to change public opinion, social practices and public policy has grown significantly. Public opinion surveys consistently show strong public support for environmental protection (Shaiko 1999; Mertig et al. 2002; Rootes 2004) and, during the 1990s, environmental SMOs have mobilized between 19 and 41 million supporters (Brulle 2000: 104-5) with the 1990/2000 World Values surveys showing that 15.7 percent of the adult population report membership (or at least involvement) in an environmental organization (Dalton 2004). Building on our prior work (summarized below), this project addresses the following:

• What are the sociopolitical factors contributing to the long-term mobilization of the environmental movement? Does this differ across environmental discursive frames, issue concerns, types of SMOs, and forms of collective action?

• How has the organization of the environmental movement changed over the past century and a half? Is there a decline in democratic participation and a rise of technocratic “astro-turf organizations” (Cigler and Loomis 1995) or “protest businesses” (Jordan and Maloney 1997)? Are institutional philanthropy and professionalization creating movement centralization or a larger loose network of transitory issue coalitions?
Is environmental mobilization stimulated or contained by the anti-environmental countermovement? Is there a spiral of movement/countermovement interaction in which similar discursive frames, organization and tactics (including protest) are adopted and diffused across these contending actors?

Ultimately our aim is to extend this effort to address the broader political and cultural outcomes of the U.S. environmental movement so as address the National Research Council’s call for “a better understanding of how social institutions influence environmentally significant human actions” (1999: 54). This will also address a major shortcoming of environmental sociology, which has tended to focus on environmental attitudes and ideology to the neglect of the mobilization and impact of the environmental movement on public policy and underlying environmental problems (see Rootes 2004). Our first step in this long journey is to better understand the long-term mobilization of this complex and multi-faceted movement.

II. MAJOR HYPOTHESES: NEW DISCURSIVE FRAMES, SMOS AND COLLECTIVE ACTION

Mobilization is the process by which resources are transferred to collective control (Tilly 1978: 54, 69). What this entails, however, is complex with existing theories typically focusing only on components of the process. Resource mobilization theory (Zald and McCarthy 1987), for example, places formal SMOs at the center, emphasizing the formation of new SMOs, their strategies for addressing the “free-rider” problem, and their tactics for political influence. As critics note, this neglects the spontaneous social energy unleashed by movements and ignores critical aspects of mobilization, such as the creation of new discursive frames, cultural commitments and identities. It also neglects ecological processes, which has been addressed by synthesizing organizational ecology theory with resource mobilization arguments (Minkoff 1995, 1999; Edwards and Marullo 1995; Olzak and Ryo 2004). Cultural theories (Melucci 1989, 1996; Rochon 1998; Snow 2004; Williams 2004) point to the formation of new discursive frames and “critical communities,” i.e. “networks of people who think intensively about a particular problem and who develop over time a shared understanding of how to view that problem” (Rochon 1998: 24-5). But aside from a few empirical studies (e.g. Rochon 1988; Cress and Snow 2000; McCammon 2001; Lounsbury, et al. 2003) and programmatic conceptual frameworks (e.g. Clemens and Minkoff 2004; Snow 2004; Williams 2004; Edwards and McCarthy 2004), cultural analysis has not been integrated empirically into long-term analyses of SMO change and collective action. Of particular importance is the question of frame transformation, i.e. dramatic and systematic change in movement discourses. As Snow (2004: 393) notes, frame transformation is one of the most important issues in cultural theory but it has received little attention and even less empirical analysis. (We use the terms “discursive frame” and “movement frame” synonymously here, preferring the former because it points to the broader set of ideological and rhetorical elements that play a role in social movement cultures.) A key contribution of this project will be to see what contributed to the emergence and diffusion of modern “reform environmentalism,” whether organizational change or other processes contributed to the success of critical communities in using the idea of ecology to transform existing conservationist and preservationist discursive frames and thereby set off the second (or perhaps third) wave of environmentalism (Brulle 2003; Rootes 2004). We also draw on Lounsbury et al.’s (2003) idea of field frames to examine intra-movement discussions over the priorities assigned to particular practices as solutions to environmental problems. Finally there is the collective action that mobilization should led to, i.e. concerted or joint actions in the pursuit of common ends, typically by attempting to change social attitudes, practices and/or public policy. While this has received considerable attention in the study of other movements, it has received little attention in the study of the environmental movement (except in Western Europe, see Rootes 2004). All three aspects of mobilization—discursive frames, organization and collective action—need to be addressed together to capture the broader mobilization process.

Three traditional explanations have been advanced to account for social movement mobilization. Classic “grievance” or “strain” theories point to sudden and widespread disruptions in everyday life, often attributable to elite actions and institutional breakdowns. Several studies document the importance of grievances, whether framed in terms of relative deprivation (Smith and Ortiz 2002; Jenkins, Jacobs and Agnone 2003) or “suddenly imposed grievances” that disrupt everyday life (Walsh 1988; Snow et al. 1998). This is an approach that has been the most useful in studying movements among deprived or disadvantaged groups but may also be relevant to general “public interest” movements, such as environmentalism. In this project, we examine grievances in terms of the incidence of widely publicized environmental disasters as well as underlying environmental degradation. Our suspicion is that it is the immediate tangible signals of “eco-disaster” more than actual environmental degradation that is important. We
argue below that new movement discursive frames are needed before such events are identified as “disasters” requiring remediation.

Second are macro-organizational theories (Jenkins 1983; Zald and McCarthy 1987; McAdam, McCarthy and Zald 1996; Minkoff 1995, 2002) that emphasize the resources, ecological processes and political opportunities that facilitate the formation of SMOs and collective action. Increased supply of organizational resources, such as foundation grants, disposable income, skilled political entrepreneurs, middle-class activists, students and retired persons with discretionary schedules, and available mass communication facilities contribute to the founding of new SMOs and collective action. McCarthy et al. (1988) show that population growth and size as well as the median household income, percent college graduates, and percent middle class contribute to the founding of local anti-drunk driving organizations. Minkoff (1995) shows that political opportunities associated with Democratic Presidents plus resources associated with woman’s and black’s educational attainment and foundation giving contribute to the founding of women’s and racial-ethnic organizations. Per capital disposable income, however, lowers SMO founding, suggesting that, contrary to McCarthy and Zald (1987), societal affluence reduces the demand (i.e. lowers the grievances) for these organizations. Similarly, Andrews and Edwards (2004) show that population size, human resources in terms of retirees and college-educated populations, civic resources in terms of 4-year colleges and prior peace SMOs/nonprofit organizations, and political resources in terms of proximity to the state capital and liberal/black voter turnout contribute to the existence of local environmental SMOs in North Carolina. This work also supports the organizational ecology thesis (Hannan and Freeman 1989; Carroll and Hannan 2000) that, reflecting increased legitimacy, low to intermediate organizational densities facilitate SMO founding while, reflecting interorganizational competition, intermediate to high densities reduce founding (Minkoff 1995, 1999; Sandell 2001; Oltzak and Ryo 2004). A second focus has been SMO survival. Analysts have shown that both strategic and ecological processes affect SMO disbanding. SMO disbanding is greater for smaller, younger, more radical and less legitimate SMOs as well as being a curvilinear product of organizational density (Edwards and Marullo 1995; Minkoff 1995, 1999). Larger SMOs display greater tactical flexibility, which enhances their survival chances (Minkoff 1999). These processes lead to the selective survival of older, larger, more professional and reform-oriented SMOs, especially those with institutional patrons and diversified programs. Discursive innovation also matters. Marullo et al. (1996) show that discursive frame enlargement to a broader and more radical frame of multilateralism and global interdependence allowed peace SMOs to survive in a context of movement decline. Borrowing on Lounsbury et al. (2003), we hypothesize that frame field enlargements likewise contribute to SMO survival.

In addition to examining these hypotheses, we address several standing controversies about these theories. One is over political opportunities. The “expanding political opportunities” thesis contends that Democratic Presidents and Congressional power, the availability of political allies, and elite divisions stemming from electoral competition and closely divided governments contributes to mobilization. This is supported by several studies (Rubin et al. 1983; Costain 1992; Isaac and Christensen 2002; Minkoff 1995, 1997; Jenkins et al. 2003) but also contradicted by others (Soule et al 1999; Van Dyke 2003). Critics point to evidence that strong left-parties provide an alternative to protest, thereby reducing it (della Porta and Diani 1999: 215-222). One possibility is that this pertains only to protest, not conventional movement action, such as lobbying and public education work or even conventional forms of protest (Costain 1992; but see Soule et al. 1999). A second possibility is that this thesis only bears on excluded groups. Insider groups (e.g. moderate feminists and environmentalists) may mobilize in response to the threat posed by weakened left-party allies while excluded groups (e.g. African-Americans, radical environmentalists) might mobilize in response to stronger left-party allies. A third possibility stems from the “social movement society” thesis (Meyer and Tarrow 1998), which argues that conventional forms of protest (i.e. petitions, demonstrations, marches) have diffused, becoming part of the repertoire of both SMOs and interest group organizations (IGOs). Expanding opportunities may be less relevant as conventional protest becomes widely diffused but may still bear on disruptive protest. A fourth possibility is that threats, i.e. “the costs that social groups will incur from protest, or that it expects to suffer if it does not take action” (Goldstone and Tilly 2001: 183), are more important. Tilly (1978: 134–35) amplifies this point by arguing that groups are more responsive to threats because they tend to inflate the value of resources already under control, overestimate the potential negative impact of threats, and can respond more quickly to threats by using existing networks and practices but responses to new opportunities require time-consuming and expensive proactive mobilization. Meyer (1990, 1993) documents the importance of the threat posed by the first Reagan administration to nuclear freeze protest. By talking about “winnable nuclear war,” the Reagan administration provoked “freeze” mobilization. The same may apply to the anti-environmentalist statements by Secretary of the Interior James Watt during the first Reagan administration (Bosso 2000; Sale 1993; Shaiko 1999) as
well as the intransigence of the nuclear power industry which is argued to have provoked anti-nuclear protests (Adair 2001). Others have found evidence of threat effects on the right-wing patriot/militia movement (Van Dyke and Soule 2002) and student protest (Van Dyke 2003). In a two-party system threat is often treated as simply the opposite effects of party control, an issue we return below.

An important but neglected source of threat is a countermovement, whose actions and apparent influence may stimulate further mobilization, creating a conflict spiral (Meyer and Staggenborg 1996). Historical sources indicate significant upsurges of countermovement activity, including: (1) demonstrations against the development of the national forests from 1891-1914 (Robbins 1962: 316, Maughan & Nilson 1993:2, Richardson 1962: 36-40, 155); (2) protests over grazing fees in the Stanfield Rebellion (1925-1934), and McCarran Protests (1941-1946) (Cawley 1993, Maughan & Nilson 1993; Clepper 1966: 140, Graf 1990: 166); and (3) the attack on Silent Spring, which was published in 1962 (Brulle 2000: 123-124). The major upsurge of the anti-environmental countermovement, however, came in the late 1970s with the “Sagebrush Rebellion” (Shabercoff 1993: 164) and, in the late 1980s, the "Wise Use Movement" (Cawley 1993: 166, Knox 1990, O’Callaghan 1992, Stapleton 1993, Helvarg 1994: 9; Grumbine 1994; Austin 2002). To date, this countermovement has not received systematic attention by sociological movement researchers. We also examine the idea that movement/countermovement interaction creates the diffusion of SMO structures, tactics, framing devices and forms of collective action (Meyer and Staggenborg 1996). A second controversy has been over the effects of institutional patronage, especially foundation funding of SMOs, and resulting professionalization. McCarthy and Zald (1973) argued that foundation funding boosts discursive frame production, SMO formation and collective action while Piven and Cloward (1977) contended that it coopts SMOs by diverting them into membership building efforts and encouraging oligarchization. McAdam (1982) and Haines (1988) support this latter “control” thesis, showing that foundation funding to the civil rights movement was largely reactive to protest, largely went to the moderate SMOs, and eventually led to a decline in protest. Jenkins (Jenkins and Eckert 1986; Jenkins 1987, 1989, 1998, 2001) advanced a “channeling” thesis, modifying the control thesis by arguing that: (1) most funding goes to professional SMOs or to professionalize “grassroots” SMOs; (2) protest may decline but it does not disappear; (3) the decline in protest is more due to movement successes than foundation funding; and (4) movement professionalization is critical to institutionalizing the victories generated by earlier protest. Minkoff (1999) and Brulle (2000: 256-64) found no simple relationship between foundation funding, centralized structures or oligarchy, suggesting that the major effect of patronage might be at the population level. In a partial reversion to McCarthy and Zald (1973), Meyer and Tarrow (1998: 16-18) contended that institutional patronage and movement professionalization have created greater movement diversity by creating a large number of “lighter, more decentralized collectivities” involved with short-term campaigns using electronic media (TV, the internet) to mobilize transitory activists for protest and combining nonpolitical service/self-help work with political advocacy. This is supported by Minkoff’s (1994, 1995) evidence on the post-1960s growth of “hybrid” SMOs combining service work with advocacy and Olzak and Ryo’s (2004) evidence that foundation and corporate philanthropy contributed to greater diversity in the goals and activities of the civil rights movement and to protests by less formalized groups. However, Olzak and Ryo (2004) also found that foundation and corporate philanthropy reduced protests for larger SMOs, which fits the “control” thesis. Critics of the environmental movement (e.g. Snow 1992) contend that corporate and foundation support demobilized the movement by placing corporate elites (including major petroleum executives) in control of the boards of major environmental SMOs, moderating discursive frames and more effective political strategies. This converges with the critique (Skocpol 2003) that professionalization has weakened civic participation. Our earlier work (Brulle and Jenkins Forthcoming) supports both the “control” and “channeling” theses insofar as environmental philanthropy has gone overwhelmingly to moderate discursive frames and to conventional SMOs but we have not addressed the broader issues of changes in SMO governance, membership organizing or collective action. This project will examine the discursive, organizational and tactical changes associated with institutional philanthropy at the SMO level and at the population level treated both as an aggregate and by discourse.

A third controversy has been over the relationships between SMO structures, goals and tactics. In a classic statement, Curtis and Zurcher (1970) argued that goals, structures and actions are complementary, creating a fit between radical goals, decentralized participatory structures, and protest vs. moderate goals, centralized structures and conventional tactics (Freeman 1979; Rothschild-Whitt 1979; Polletta 2002). Yet there are also hybrid SMOs that combine these features and the “social movement society” thesis contends that conventional protest has diffused widely. In a study of local women’s SMOs, Bordt (1997) found that participatory ideology led to the rise of hybrid SMOs that combined centralized with participatory structures and protest with institutional tactics. Minkoff (1994, 1995) likewise found a growing number of hybrids combining protest, service delivery and institutional advocacy.
and, in other work (Minkoff 1999), found that larger SMOs display greater tactical flexibility, adopting multiple forms of action. Foley and Edwards (2002) found that a significant divide between the larger peace SMOs active inside the “beltway” and those outside. Beltway peace SMOs are overwhelmingly centralized SMOs with conventional tactics but smaller SMOs outside the “beltway” display greater diversity and mix of goals, structures and tactics. A key but often neglected issue is governance. Brulle (2000: 291-2) found that of the largest 100 environmental SMOs, 61 percent were oligarchies yet about a third used consultation with centralized decisionmaking. Few were participatory democracies. Most radical SMOs were tightly controlled oligarchies, contradicting the complementarity thesis. We examine the associations between SMO discursive frames, professionalization, governance structures and tactics across time with a much larger representative SMO dataset that will evaluate the diffusion thesis, the role of hybrids, and the complementarity thesis.

A fourth controversy has been over the relative balance of competitive and mutual relationships among SMOs. Hannan and Freeman (1989) argue that greater density of organizations in one niche may provide models and legitimacy to other sectors but, at the same time, that greater density within a niche creates interorganizational competition. Testing for curvilinear vs. simple linear effects of organizational density among various racial minority and women’s SMOs on the founding of SMOs representing other sectors, Minkoff (1995: Ch. 6) found strong linear effects, indicating significant mutualism between these movements. Curvilinear density effects were limited to the specific movement, indicating that interorganizational competition is limited to the specific constituency. Minkoff (1997) likewise found positive effects of African-American movement collective action on women’s movement collective action, indicating mutualism within the 1960s/1970s protest cycle. Sandell (2001), however, found significant intermovement competition between the Swedish temperance movement and the free church and labor movements as well as curvilinear organizational density effects within each of these movements. This can be applied to the multiple discourses of the environmental movement. By examining the effects of discourse-specific organizational density on the founding of other discourses, we can examine the extent to which the sectors of the environmental movement have been competitors or sources of mutualism.

A fifth question is the structure of the interorganizational networks formed by foundation support for environmental SMOs. Research shows that centrality in interorganizational networks creates legitimacy, influence and access to important resources (Laumann and Knoke 1987; Knoke 1990). However, there is a point at which too many ties with other network members limits autonomy (Burt 1980). We examine the relationship between foundation funding and SMO autonomy by analyzing the network overlap based on foundation grants to environmental SMOs. Using adjacency matrices, Brulle and Caniglia (1999) examined the network structure formed by the foundation grants identified in the Foundation Center grants data base for 182 national environmental SMOs. They found that this funding network was relatively centralized with SMOs advocating moderate discourses constitute a small “inner circle” of environmental SMOs receiving the majority of grants from a wide array of foundations. We will extend this by analyzing the network structure of foundation grants for 2000 for all 257 foundation members of the Environmental Grantmakers Associations, an affiliation group among foundations committed to environmental philanthropy, comparing it against our larger environmental grants database (discussed below) and examining the financial dependence of these SMOs on foundation funding. We predict that: (1) this network will be relatively centralized, defining an “inner circle” of widely supported environmental SMOs; (2) these SMOs will display moderate discourses; (3) this “inner circle” will receive the majority of all foundation environmental grants; and (4) this “inner circle” will be more financially dependent on foundation grants than other environmental SMOs.

A third cultural approach (Melucci 1989, 1996; Rochon 1998; Zald 2000; Williams 2004; Snow 2004) emphasizes the creation and dissemination of newworldviews, the development and structuring of social movements based on these alternative worldviews, and the competition of these movement worldviews with dominant worldviews for cultural hegemony. The most relevant aspect of contemporary cultural theory is what has come to be known as “frame analysis.” This approach focuses on the creation and maintenance of the common beliefs that define the reality within which a social movement operates (Stewart, Smith and Denton 1989; Benford and Hunt 1992; Benford 1993; Benford and Snow 2000; Brulle 1994). As Zald (2000) and others (Rochon 1998; Garner 1996; Wilson 1973) argue, movements must first be understood in terms of the discursive frame that defines the taken-for-granted reality in which the social movement operates. This frame provides a history of the origins of the movement, its development, and its future agenda, as well as a collective identity for movement activists and guidelines for collective action. While there has been some debate over the distinction between framing and ideology (e.g. Garner 1996; Oliver and Johnston 2000a, 2000b; Snow and Benford 2000; Westby 2002), for our
purposes, the key issue is the “master frames” that define the central problems addressed by the movement (or movement sector) and the strategies for addressing them.

Cultural beliefs play an important role in the definition, motivation, and legitimation of collective action. Yet, despite their importance, our understanding of their origin and change remains underdeveloped. The analysis of social movement frames, especially environmentalist frames, frequently relies on the problematic application of either essentialist or ahistorical models, or focuses on the rhetorical processes involved in the creation of a particular framing dispute or protest event (Brulle 2000:93, della Porta & Rucht: 2002). Because of their self-limiting nature, these approaches are unable to grasp the historical development or diversity of discursive frames. Additionally, as the community of actors redefines its discursive frame, it also redefines its organizational practices. Thus, shifts in the discursive frame of a social movement, either through the development of new frames, or the transformations of existing ones, can change the movement’s characteristics. Moreover, the collective perception of political opportunities/threats, the legitimacy of organizational forms and resource constraints often depend on transformations of master frames. Some note (McAdam 1999; Gamson and Meyer 1996) that opportunities and threats must be collectively perceived to actually affect movement actions and that this often depends on master frame transformations. Interorganizational competition may also be limited to SMOs that share a common frame, thereby affecting across-discourse competition and legitimation dynamics.

Within any social movement, there are generally multiple frames, defining distinct movement sectors or “wings” which diverge in terms of their definition of problems, strategies and methods of organization. As Laclau and Mouffe (1985: 140) state: “plurality is not the phenomena to be explained, but the starting point of the analysis.” Using a comprehensive historical overview of 93 national environmental organizations, Brulle (2000: 96-99) shows that the evolution of the environmental movement in the U.S. has been informed since its emergence in the mid-19th century by eight major discourse frameworks. Subsequent analyses have verified this framework in capturing the historical changes in environmental discourse (Dreiling and Wolf 2001; Carmen and Balser 2002; Clark 2002; Lankard and McLaughlin 2003; Brechin, et. al. 2003; Dalton, Recchia and Rohrschneider 2003; Rootes 2004). This framework of environmental discursive frames forms the starting point of our analysis. Using this framework, we propose to examine the development and change of the environmental movement by examining the emergence of different discursive frames over time, how framing innovations affect movement mobilization, and how framing innovations eventually affect the larger cultural and sociopolitical system. This means that discursive framing is treated as both an independent and a dependent variable, depending on the question at hand. Here we follow Snow’s (2004: 405) advice, who argues that “collective action frames can be examined not only as dependent variables, but also profitably as independent variables in relation to a host of movement issues and processes.” In specific, this leads to three major focuses:

1) Cultural Innovation and the Emergence of Social Movements. Arguing that social movements initially form around the ideas generated by critical intellectuals, Rochon (1998: 8-22) distinguishes between “critical communities,” i.e. small groups of critical thinkers “whose experiences, reading, and interaction with each other help them to develop a set of cultural values that is out of step with the larger society,” and social movements, which emerge in response to (among other things) the world views developed by these critical communities. As Rochon (1998:22) argues, the key process is the creation of a new alternative worldview displaying “sensitivity to some problem, an analysis of the sources of the problem, and a prescription for what should be done about the problem.” This alternative worldview and its dissemination by a movement is a critical condition for the collective perception of a social problem. Without the language to define and evaluate problems, potential grievances and opportunities/threats are ignored. For example, in 1966, a serious nuclear accident at the Fermi nuclear reactor in Detroit stirred neither protest nor public demands for closer regulation (Gamson and Modigliani 1989). Thirteen years later when the Three Mile Island nuclear accident occurred, the local response in terms of protests and demands for shutting down the nuclear reactor was prompt and widespread (Walsh 1988), reflecting the intervening changes in environmental frames. “Cultural change creates new language and moral vision for thinking about and evaluating reality.... (W)hat was unthinkable is now seen as thinkable. What was taken for granted can no longer be so taken (Gusfield 1981: 326).”

In the proposed research, we empirically test Rochon’s (1998) thesis that frame shifts are first initiated by “critical communities” and then disseminated to the larger public through new SMOs. A first step in this is examining the effects of the publication of environmental books and magazine stories (which serve as indicators of the activities of critical communities) on the formation of environmental SMOs and their mobilization. In addition to aggregate
level time-series analyses (including treating each discourse separately and testing various time lags), we will use in-depth case studies of the impact of new environmental discourses on the formation of new SMOs associated with these new discourses. For example, we will trace the impact of the idea of ecosystems analysis on the formation of reform environmentalism during the 1960-70s and, during 1980s, that of deep ecology and ecospirtualism. This will be compared with what appears to have been a largely internal transformation of from “game protection” to “wildlife management” in the 1930s which was associated with the transformation of several existing SMOs and the creation of new SMOs.

2) Discursive Frames and Social Movement Organization Practices: Our second focus is the structuring of social movement organizations and their practices. The discursive frame of a social movement informs the construction and maintenance of SMOs by constituting their shared definition of reality. By sharing a collective worldview, participants in a social movement engage in a common language game. This interrelationship between social movement culture and structures has been captured best through the use of the theoretical approach known as “ideologically structured action” (or ISA). This approach is defined as “behavior which is guided and shaped by ideological concerns – belief systems defending and attacking current social relations and the social system” (Zald 2000: 3-4). It is the adherence to a similar discursive frame that creates a shared sense of appropriate behavior, leading to regularized social practices and alliances between institutions that share such a common frame. From a discursive viewpoint, social movement organizations can be seen as cultural rules that identify categories of social actors and their appropriate activities or relationships (Lounsbury et al. 2003: 75; Spellman 1995: 141; Sewell 1992: 8). Through the definition of the nature of the social reality in which a movement organization exists, the discursive frame creates and defines movement organizations (Bittner 1965; Brown 1978: 373-74). Based on this collective identity, a network of interaction is formed which constitutes a social movement.

Within this area, we propose to examine three distinct sets of relationships. First, we examine the relationship between discursive frames and SMO structures. Following framing theory (Benford and Hunt 1992, Benford 1993, Benford and Scott 2000) and “ideologically structured action” (Zald 2000, Diani 2000) ideas, discursive frames shape a number of internal organizational characteristics of movements. As Knake (1990) found, organizational culture outweighs resources, constituencies, and political alliances in defining movement strategies and tactics. Once instituted, the ideological frame of an SMO forms a collective identity that guides the subsequent socialization of leaders and activists and is therefore highly resistant to change (Gamson 1990). Research has also shown that, for the environmental movement, discursive frames are a critical factor defining the practices of environmental groups, and often outweigh their resource base or political alliances (Dalton 1994, Dalton Recchia and Rohrschneider 2003, Dreiling and Wolf 2001, Carmon and Balser 2002).

The second area we examine is the impact of discursive frames on SMO survival. Organizations from the viewpoint of organizational ecology are seen to operate within a network of similar institutions. This network of organizations comprises “a bounded system that are all subject to the same form codes” (Hannan, Carrol, and Polos 2003: 320). Organizational membership in this system is “subject to the externally sanctioned identity codes that apply to the organizational form defining the population” (Hannan et al. 2003: 311). Since SMOs that adhere to the same discursive frame act in an environment with other such SMOs, they are affected by the density of competing organizations (Hannan and Freeman 1977; Olzak and Uhrig 2001). The core organizational ecology thesis is that, as the number of organizations within a given system increases, the legitimacy of the movement initially increases, thereby facilitating SMO formation. With time, however, competition for scarce resources intensifies, especially for SMOs that depend on personal networks for mobilizing or confronting a stable or declining niche. This slows the rate of new SMO formation and reduces the survival probabilities of existing SMOs (Gray and Lowery 1995; Minkoff 1994; Sandell 2001). The discursive frame of an organization (or “identity codes” in the terms of organizational ecology theory) defies what Koopmans and Statham (1999) label a “discursive opportunity structure.” This implies that specific discursive frames define distinct niches within the overall population of environmental SMOs. Accordingly, the creation of new discursive frames should open up new niche spaces, thus allowing the overall expansion of the environmental movement. We therefore examine the density dependence function for both the overall population of environmental SMOs as well as for each discursive frame. If interorganizational competition is limited to specific discourses and there are positive benefits of new discourses, then the density dependence function should be different for the overall environmental population and for specific discourses. Moreover, the emergence of new discourses should have a positive effect on SMO formation in existing discourses. It is also possible that interorganizational competition drives SMOs to create new discursive frames to enhance their survival chances. Rising density should have a positive effect on the emergence of new environmental discourses.
The third area we will examine is the effects of discursive frames on the formation of interorganizational alliances between the environmental movement and institutional patrons. As noted by Zald (2000: 10), adherence to a similar discursive frame is critical for creating alliances between organizations. Similarly, Diani (2003: 23) argues that we can view movement networks “as a reflection of the logic of action by which SMOs select their allies, pool resources, and build identities which go beyond the boundaries of any single SMO.” We will therefore examine the effects of discursive frames on the structure of the interorganizational networks formed by foundation grants to environmental SMOs. We predict that: (a) the majority of foundation funding goes to SMOs with conservative frames; and (b) there is a division between mainstream institutionalized foundations, which fund the more moderate SMOs, and the more radical “alternative” foundations that fund radical discourses (Jenkins 1996, 2001; Brulle and Jenkins 2004). At the same time, discursive frames can also function as dependent variables. As argued by the channeling thesis, funding opportunities encourage SMOs (especially newly formed SMOs) to adopt more conservative problem definitions and strategies. Some argue that external patronage also encourages SMOs to adopt more conservative discursive frames and related projects. We will examine this last hypothesis through comparative case study analysis of the discursive transformations of four major SMOs. Critics contend that foundation patronage coopted the Environmental Defense Fund and the Natural Resources Defense Fund (Dowie 1995), which should differ from the discourse stability exhibited by Greenpeace and Environmental Action (which disbanded in 1995).

3) Competition for cultural hegemony: The third area of focus is the interaction between social movements and both external political authorities and organized countermovements. This interaction has important consequences for the process of cultural change (Earl 2004). From a cultural viewpoint, changes in social structures are brought about through a redefinition of what constitutes the common sense embodied in the everyday practices of society. Accordingly, Bourdieu sees that control over the symbolic definition of reality forms political power: “Knowledge of the social world and more precisely, the categories that make it possible, are the stakes, par excellence, of political struggle, the inextricably theoretical and practical struggle for the power to conserve or transform the social world by conserving or transforming the categories through which it is perceived” (1985:729). This allows us to see the symbolic dynamics of the political community as being based on the interaction between the dominant discourse and the challenges to this discourse made by social movement organizations based on an alternative discursive frame. This competition between the dominant and alternative discursive frames is best captured by Gramsci’s (1983) theory of cultural hegemony. For Gramsci, the successful mobilization and reproduction of the active consent of the dominated groups by the ruling class is made possible through the ruling class' exercise of intellectual, moral and political leadership (Mann 1970). These hegemonic ideas form a collective will that unifies a historic bloc. There is then a war of position between the ruling bloc and its hegemonic ideas, and an alternative bloc based on an alternative reality in the form of a social movement (Touraine 1977: 25-26). The emergence of movement identity occurs when the dominant and legitimate discourse clashes with this alternative discursive frame of the social movement. This creates the perception of a group and symbolic reality outside of the taken for granted social reality (Cathcart 1972, 1978, 1980), and leads to a competition over the applicable and legitimate definition of the situation. As shown by Cathcart (1980: 72), this competition defines the development of a social movement.

This competition over cultural hegemony has three key components. First is the interaction between movement and countermovement. As Meyer and Staggenborg (1996) argue, one of the strongest stimuli for movement activity is countermovement activity, and vice versa, which often creates conflict spirals and intense hostilities. One focus will be the reciprocal effects of movement and countermovement mobilization on each other. Second is the response of political authorities, which is critically shaped by movement discourses. In general, SMOs promoting moderate discourses are facilitated while more radical discourses are typically repressed or shunted aside. Descriptive and time-series analysis will capture the extent to which elite responses favor the mobilization and action of movement moderates and dampen those of more radical SMOs. Third is the larger cultural impact of movement mobilization. Arguing that cultural change is the common denominator behind all movement goals, Rochon (1998:50-51) contends that cultural change “is an appropriate yardstick for all movements.” And yet, as Earl (2004) notes, there is “a paucity of research on cultural outcomes.” An important exception is Loudsbury et al.’s (2004) analysis of the rise of recycling. Stemming from the cultural work of movement activists, models of recycling were eventually adopted by profit-making organizations that have become an institutional feature in dealing with household waste. Thus the movement was critical for developing the cultural template but elites and other institutional actors had to find this template one that could be adapted and utilized. We will examine this through a content analysis the speeches of corporate elites (from Vital Speeches) and Presidential State of the Union addresses. The endorsement
and rejection of environmentally focused initiatives will provide cultural outcome measures of the impact of the environmental movement. This legitimacy should also encourage environmental mobilization.

Table 1 summarizes our major hypotheses. We organize these around seven major analyses: (1) new discursive frames; (2) SMO founding; (3) SMO mortality; (4) collective action; (5) the effects of foundation patronage and professionalization; (6) the complementarity thesis; (7) centrality in foundation funding networks; and (8) movement/countermovement interaction. Past work has largely compartmentalized these theories by treating only single aspects of mobilization. Bringing discursive frame production, SMO development and collective action together in a series of interrelated analyses helps identify new hypotheses. It leads to use ask whether macroorganizational resources and opportunities/threats encourage the production of new discursive frames as well as SMO foundings and collective action (Rochon 1998). It also leads to treating discourse production as both a dependent and an independent variable. New discursive frames and frame enlargement/transformation may contribute to SMO founding and survival as well as collective action. One possibility is that new discursive frames interactively combine with macro-organizational resources and opportunities/threats to generate new SMOs and collective actions. We also look at specific types of mobilization, such as discourse-specific SMOs and disruptive protests. The control/channeling discussion, for example, asks whether institutional patronage and professionalization create shifts at the aggregate and/or SMO level from radical to moderate discursive frames, democratic to oligarchic structures, and protest to institutional tactics. The question of mutualism asks whether discourse-specific sectors of the environmental movement are complementary or competitors. Many of these hypotheses have been generated by studies of the civil rights, women’s and peace movements. It is also important that these ideas be tested on new ground.

Table 1. Major Hypotheses for the Analysis of Environmental Mobilization.

New Discursive Frames:
1. The emergence of new environmental discursive frames contributes to the formation of new SMOs promoting these specific frames.
2. Discursive frames organize the strategies and tactics used by SMOs.
3. Once instituted, these discursive frames and associated SMO structures are highly resistant to change.
4. New discursive frames create new niches for movement activity and thus boost SMO formation in existing discourses.
5. The effects of density dependence are stronger within specific discourses.
6. Rising SMO density promotes the development of new environmental discourses.
7. Shared discursive frames organize institutional patronage such that mainstream institutional foundations fund moderate discourses and alternative foundations fund radical discourses.
8. Foundation funding facilitates the formation of new SMOs with more conservative discourses.
9. Foundation funding contributes to conservative changes in the discourses of existing SMOs.
10. Movement mobilization and action are prime stimuli for countermovement mobilization and vice versa.
11. Elite actions will facilitate mobilization and action by moderate discourses while discouraging radical discourses.
12. Elite endorsement and rejection affects the institutionalization of environmental initiatives.
13. Environmental disasters/degradation, resources and political opportunities/threats contribute positively to the production of new discursive frames.
14. The interactions of disasters/degradation, resources and political opportunities/threats contribute positively to new discursive frames.

SMO Founding:
1. Environmental disasters/degradation, new discursive frames, resources and political opportunities/threats contribute positively to SMO founding.
2. The interactions of disasters/degradation, new discursive frames, resources and political opportunities/threats contribute positively to SMO founding.
3. Organizational density has a curvilinear effect on SMO founding with low-to-intermediate levels increasing founding (legitimacy) and intermediate-to-high lowering founding (competition).
4. Discourse-specific SMO density has linear positive effects on SMO founding by other discourses (mutualism) OR this SMO density effect is curvilinear, indicating both legitimacy and competition (competition).
SMO Survival:
1. Resources, political opportunities, new and enlarged discursive frames (including enlarged field frames), moderate discursive frames, professionalization, centralized structures, and institutional tactics contribute positively to SMO survival.
2. Organizational density has a curvilinear effect on SMO survival with low-to-intermediate levels raising survival (legitimacy) and intermediate-to-high lowering survival (competition).
3. Discourse-specific SMO density has linear positive effects on SMO survival by other discourses (mutualism) OR this SMO density effect is curvilinear, indicating both legitimacy and competition (competition).

Collective Action:
1. Environmental disasters/degradation, new discursive frames, resources and political opportunities/threats contribute positively to environmental action.
2. The interactions of environmental disasters/degradation, new discursive frames, resources and political opportunities/threats contribute positively to environmental action.

Foundation Patronage and Professionalization:
1. Foundation patronage contributes positively to professionalization and thereby positively to new discursive frames, SMO founding and collective action (McCarthy & Zald).
2. Foundation patronage contributes positively to professionalization and thereby increases the dominance of moderate discursive frames, centralized/oligarchic SMOs and conventional actions (control/channeling theses). This control/channeling process works at the SMO level as well as the population level.
3. Foundation patronage contributes positively to professionalization and thereby positively to the founding and disproportionate growth of hybrid SMOs and the diffusion of conventional protest (social movement society thesis).
4. Foundation patronage is distributed disproportionately to moderate, centralized and professionalized SMOs that engage exclusively in institutional tactics (control/channeling theses).
5. Foundation patronage contributes positively to membership building by moderate SMOs (control thesis) or discourages membership building (Skocpol 2003).

Foundation Patronage and SMO Autonomy:
1. The foundation funding system for environmental SMOs is relatively centralized with moderate SMOs constituting a “inner circle” that receives the majority of foundation grants.
2. This environmental “inner circle” is more financially dependent on foundation funding than other SMOs.

Complementarity Thesis:
1. There is a general complementary fit between SMO goals, structures and tactics such that radical discursive frames are associated with decentralized structures and protest while moderate discursive frames are associated with centralized structures and institutional tactics.
2. Radical discursive frames and foundation funding/professionalization contribute to hybrid SMOs that combine centralized with decentralized structures and protest with institutional advocacy/service delivery.

Movement/Countermovement Interaction:
1. Movement mobilization contributes positively to countermovement mobilization and countermovement mobilization to movement mobilization.
2. Countermovements mimic the discursive innovations, structures and tactics of movements.

III. DATA AND MEASUREMENT
This project entails significant original data collection, some of which has already been conducted with a small grant from the Nonprofit Research Fund of the Aspen Institute (8/30/03-3/31/05). Most of these are annualized timeseries with specific time coverage dictated by data availability. In specific, the project will entail major new data collection on: (1) new environmental discursive frames; (2) environmental SMO founding, mortality and organizational characteristics; (3) environmental collective action; (4) widely-publicized environmental disasters and environmental degradation; (4) macro-organizational resources; (5) political opportunities; (6) elite and countermovement threats; and (7) SMO change. We discuss each below, including a synopsis of current data in hand. We begin with dependent measures for discursive frames, SMOs and collective action and then discuss independent variables.
1. Discursive Frames. In past work, Brulle (2000) identified the 8 major discursive frames used by the environmental movement since the 19th century and outlined a method for content coding these from the self-descriptions of environmental SMOs provided in environmental directories and websites. This coding followed established procedures for the analysis of textual materials (Donati 1992; Fine 1995; Lofland 1995, 1996; Mohr 1998). Subsequent analyses have verified the utility of this framework and pointed out the need to include discourse overlapping and application to specific environmental topics (Carmen and Balser 2002, Rootes 2004). The environmental movement is in major respects a public intellectuals’ movement in which critics develop ideas about problems, promote these within small “critical communities,” and publicized these ideas through books and articles. These public intellectuals often found new SMOs to manage this publicity. In addition to frame transformation, framing production includes enlarging discursive frames by revising field frames that prioritize specific practices as important to addressing specific problems (Lounsberry et al. 2003). We gauge the production of new environmental discursive frames through two methods: (1) content coding annual counts of book publications in the relevant environmental subject headings in the Library of Congress Catalogue System (available 1899-2000); and (2) content coding annual counts of popular magazine stories on relevant environmental topics based on the Reader’s Guide to Periodic Literature for 1905-2000 (Wilson & Co. 1905-2000). A preliminary version of the first has been completed (Brulle 2003), generating the aggregate annual time-series of environmental book production in Figure 1 below. We will disaggregate these data into specific discursive frames and field frames to capture frame transformation and enlargement processes. This project will support comparable coding of the Reader’s Guide to capture an alternative media for the public dissemination of these discursive frames, thereby allowing us to evaluate the argument that popular periodicals have recently become more central to discourse production (Rochon 1998). Figure 1 below charts the “book” series and our current estimate of national SMO founding.

![U.S. Environmental National/Regional Organization Foundings & New Book Titles Listed In Environmental Book Subject Heading 1900-2000](image)

2. SMO Founding, Mortality and Organizational Characteristics. Past work has been limited to the largest 10-15 national SMOs (Mitchell et al. 1992; Shaiko 1999) or the largest 100 (Brulle 2000). Estimating from IRS data that there were over 10,000 national, regional and local environmental SMOs in the U.S. (Brulle 2000: 102-4), we
launched an exhaustive review of all environmental directories that have been published in the U.S. (currently 10 serial directories, 89 one-time directories), several books and conference proceedings, UN listed organizations, 47 website directories and the electronic IRS Master File of Tax-Exempt Organizations (2003). For our codebook, see our project website: http://www.pages.drexel.edu/~brullerj/Envorgdata.htm. Our current estimate is that over 4,000 of the 16,000+ environmental organizations identified to date are national or regional environmental SMOs based on: (1) focusing primarily on environmental change; and (2) operating in at least 2 or more states or nationally. Less than forty percent of these SMOs have been listed in the cumulative editions of the Encyclopedia of Associations, the source used by many analysts to gauge national SMO populations (e.g. Minkoff 1995; Baumgartner and Leech 1998), indicating the need for a much broader search for relevant organizations. We are currently identifying which environmental organizations are SMOs and collecting founding date, mergers, death date and major discursive frames. A majority of environmental SMOs probably operate on the local level (i.e. a single community or within a single state [Andrews and Edwards 2004]) but, due to resource limits, we have decided to focus only on regional and national SMOs. In future work, we hope to examine local SMOs but, given the number of SMOs and the organization of environmental directories (which typically are not organized by state), it would be highly expensive to even examine a subsample. By the end of our current Aspen funding, we expect to have completed this organizational review and coded the above major features. Although the first SMO was founded in 1875, the data quality is only sufficient to support detailed analyses of 1900-2000. This method provides a gauge of the bias built into relying on single directories, such as the Encyclopedia of Associations.

This project will also support the construction of 5-year panel series for 1960-2000 for the following SMO characteristics: (1) major discursive frames, frame spanning and frame field definitions; (2) type of SMO; (3) membership level and type (individuals only; organizations only; both; umbrella/network/coalitions); (4) presence of annual convention/meeting and attendance; (5) unitary/federal structure; (6) social change goals (moderate, radical); (7) professionalization (# professional staff; staff/membership ratio); and (8) membership level. For 1980 and 2000, we will also construct measures of: (1) tactics and activities; (2) governance; and (3) strategy of social change. (For details, see: http://www.pages.drexel.edu/~brullerj/Envorgdata.htm)

Most of the above SMO characteristics are straightforward but two require amplification. Tactics and activities will be coded from the directory/website self-description entries and the ProQuest electronic news archive (see below) based on the categories outlined by Minkoff (1991). These include a full range of activities as lobbying, electioneering, network/coalition organizing, policy research, marches/rallies/demonstrations, environmental education and the like. This activity scheme will also be used in the collective action coding (see below) to provide a cross-check and comparability across data systems. Governance will be coded from the organizational by-laws secured from the SMOs and the IRS into the following codes (see Brulle 2000: 91-92): (1) oligarchies, in which the board of directors elects the officers and the new board members and there is no input mechanism for members; (2) representative organizations, in which chapter members elect representatives, who select boards, officers and policies; (3) limited democracies, in which governance is shared with members able to nominate and/or elect some of the board and/or officers but other aspects of organizational control are specifically delegated to the board; and (4) democracies, in which the board and officers are directly nominated and elected by the membership (Brulle 2000: 91-92). Although by-law changes are rare, indications of changes are generally preserved in current statements, allowing us to pin-point the timing of significant governance changes. We will also use changes in the SMO characteristics discussed above to identify SMOs for in-depth review as to possible by-law changes circa 1980.

3. Environmental Countermovement Organizations (CMOs): Drawing on the records of the Clearinghouse on Environmental Advocacy and Research (CLEAR), we will also construct a 5-year panel series for 1975-2000 of the founding, mergers and disbanding of CMOs. CLEAR operated from 1993 to 2002 as an organization dedicated to researching the anti-environmental movement in the U.S. It compiled a list of over 2,800 anti-environmental groups, the majority of which were sponsored by corporations and wealthy individuals, and published a monthly newsletter on countermovement activities. Although CLEAR is no longer in existence, the Environmental Working Group in Washington D.C. has the CLEAR files and has agreed to allow us access them (personal contact, 7/6/04). We will supplement the CLEAR data with a review of published directories of anti-environmental organizations (Deal 1993; CDFE 1992). Our newspaper coding of movement collective action will also identify additional CMOs and we will use the Encyclopedia of Associations and other directories to identify additional CMOs. Because most of these groups are for-profits or not incorporated as nonprofit organizations, it is not feasible to construct estimates of financing and organizational structure on the majority of CMOs.
4. Environmental and Countermovement Actions. To gauge collective action by the environmental movement and its countermovement, we will construct annualized counts of collective actions as reported in the New York Times Index (1900-2000). A key to index coding is extensive searches for appropriate headings. In the early 20th century, “public sanitation,” “trade waste” and “hygiene” are relevant headings along with “forests” and “national parks.” We will use the keywords generated through coding environmental publications as well as string-search methods (Maney and Oliver 2001) and cross-references to guide our review of Index headings. A key question is newspaper bias. In coding events, the major problem is not descriptive bias (i.e. misrepresentation of who did what to whom about what topic) but selection bias (i.e. unrepresentative selection from the larger world of “real world” events; see Earl et al. 2004; Franzosi 2004: 167-73). Does the New York Times publish a representative set of national environmental events? Although the New York Times should be a good gauge of national actions by the environmental movement, it needs to be tested for source bias. We will use the Los Angeles Times Index (1984-2000) and the electronic ProQuest newspaper archive (1900-2000) to construct samples of daily environmental events as reported in the Los Angeles Times to provide a comparison with our New York Times Index events. By randomly selecting 1 percent of the newsdays from respective time periods, we will use an “exact event match” method as well as estimated aggregates to compared these three series. This tests the argument that regional proximity affects reporting of environmental action as well as the virtues of keyword-string vs. index coding. As well we will use a random sampling procedure to compare the results of keyword-string searching the ProQuest electronic archive of the New York Times daily paper to evaluate the Index as a news filter and improve our heading list. In a previous study, the Pearson correlation between annual counts of African-American protests for 1955-92 derived from Index coding (Jenkins, et al. 2003) and those generated by the full-story coding by Olzak and West (1995) was .86, indicating a high overlap. Further comparisons with the Soule-McCarthy-Olzak-McAdam protest project will be attempted as their data becomes available for secondary analysis in 2005-06. These data will be coded in terms of: (1) actor (individual, informal group, SMOs); (2) movement vs. countermovement actor; (3) form of action (Minkoff activity list plus any revisions needed); (4) immediate target (federal/state/local government, private industry (specify), private individuals, schools, churches, general public; (5) location (city/state); (6) date (day/month/year); (7) reported participation for protests (if available); and (8) environmental problem addressed; and (9) movement discursive frame. Location of event will allow us to remove New York metropolitan events, thereby evaluating a major source of potential report selection bias. A preliminary data set for 1960-1997 has been constructed from coding the New York Times Index and used in one MA thesis (Agnone 2004) but needs considerable work to add additional headings, event forms and time coverage. This project will support that work as well as the reliability tests of Index filtering and news source selection bias. Independent Variables:

5. Publicized Environmental Disasters/Environmental Degradation. Publicized environmental disasters will be identified using keyword-string searches of the Pro-Quest news archive for the New York Times to estimate the annualized incidence of environmental disasters using such words as “nuclear accidents,” “toxic spills” and “cleanups,” “oil spills” and “cleanups,” “fish kills,” “toxic waste,” “meltdown,” “Chernobyl” and “Three Mile Island.” To gauge underlying environmental degradation, we will measures of aggregate ambient air pollution (1940-1998), lead and mercury in water, acid rain and loss of biodiversity (Criteria Pollutants Data, Environmental Protection Agency 2000; http://www.epa.gov/ttn/chief/trends/trend98/), oil spills reported in the U.S. Coast Guard Oil Spills in and Around U.S. Waters (1968-2000), and other indicators derived from CIESIN (http://www.ciesin.org).

6. Macro-Organizational Resources will be measured by annualized series for the following: a. Foundation Patronage. With support from the Aspen Institute, we are constructing 5-year panel estimates of foundation funding for 1960-2000 for environmental SMOs based on an exhaustive review of all grants by members of the Environmental Grantmakers Association (EGA) and a 10% sample of all other environmental funders as identified by the Foundation Directory (1970-2003), the National Guide to Funding for the Environment (1993-2004), the GrantSeekers Guide (1998-2002), and a customized search of the Foundation Center Dialogue grants data. We are currently constructing the grants of the EGA members and expect to have this completed by March 2003. This project will fund the creation of the 10% random sample of the additional 2,500 + foundations that we have identified as funding environmental projects. We have also constructed 5-year panels of data on the EGA foundations (annual assets, total # and $ of grants, staff size, specific environmental programs, founding date, type of foundation [independent, community, corporate, operating, public charity], and the presence of donors on the giving board). This project will fund the construction of comparable foundation data for the random sample set. This is superior to the aggregate measures for all foundation and corporate giving published in Giving USA that have
been used in the past (e.g. Minkoff 1995; Olzak and Ryo 2004) and cross-checks the environmental SMO list. This data will allow us to compare SMOs that receive no grants with those that do, thereby testing more rigorously the control/channeling arguments. It will also contribute to the network analysis of the environmental funding system. The funding system analysis will also entail constructing data on foundation grants as a percent of receipts for all SMOs for the year 2000, which will be derived from the digitized data IRS records on all nonprofit organizations maintained by the National Center for Charitable Statistics, Urban Institute (http://ncfdataweb.urban.org/NCCS/Public/).

c. Middle Class Growth: counts of 4-year college enrollments, percent college-educated adult population, and percent in white collar and professional occupations (U.S. Census; U.S. Department of Education; Statistical Abstract of the U.S.)

7. Political Opportunities & Threats will be measured by: (1) Democratic Presidents (dummy variable); (2) northern Democratic power in Congress (% of total seats; see Jenkins et al. 2003); (3) divided government (dummy variable for the Presidency, House & Senate in different party control); (4) Presidential support of environmental protection (the count of pro-environmental statements based on a content analysis of the Presidential State of the Union addresses for 1900-2000); (5) elite support of environmental protection (the count of pro-environmental speeches with the environment as its major topic in Vital Speeches (1934-2000); and (6) political crisis and contest, based a dummy variables for all years in which there was an international war, an economic recession, and a Presidential election in which more than 1 percent of the electorate voted for a 3rd party. Political threat will be measured by the reverse effects of the above political opportunity measures, and the mobilization of the countermovement.

8. SMO Change in terms of structures, field frames and activities will be gauged by comparative case study of ten major environmental SMOs for 1970-2000. These will be constructed from SMO publications, annual reports, IRS 990s, news stories, in-depth phone interviews and other published works documenting organizational change in these SMOs. We will select the top five recipients of foundation grants and five which received few or no grants to highlight the impact of foundation funding on changes in programs and activities.

IV. MODELING AND ANALYSIS

This calls for multiple types of analysis, including description of historical series and the use of annualized timesseries and event history models. Our major analyses will be as follows:

1. Descriptive Trends in Movement/Countermovement Mobilization. The first step is describing trends in movement mobilization, including breakdowns of books and publications, the founding and disbanding of SMOs/CMOs, and different types of collective action broken down by discursive frames and (for actions) the targets (1900-2000). The debate about professionalization can be partially addressed by descriptive analyses of the trends in the priorities of foundations in terms of their funding of discursive frames, types of SMOs (membership, professional, hybrids), numbers of members, professional/staff ratios, SMO governance structures, and SMO tactics. This will include comparison of funded vs. non-funded SMOs, providing a better gauge of foundation priorities and the aggregate impact of their funding. We will also construct trends in CMO founding, disbanding, discursive frames and collective action for 1975-2000, providing a comparison of the mobilization of the contending sides and a basis for assessing the movement/countermovement interaction pattern (discussed below).

2. Movement Mobilization, 1900-2000. Our second major analysis will use annual time-series regression techniques applied to the three major mobilization measures using counts of discursive frame production, SMO founding, SMO disbanding, SMO density, and environmental collective action. We will test both OLS-derived models and poisson models (Cameron and Tivendi 1998). Problems of linear trending can be addressed through year-count controls and change-scores. In addition to aggregate dependent measures, we will also examine subcomponents, such as counts for different discursive frame production, founding of types of SMOs, and counts of types of collective action. Examining the effects of organizational density for specific discourses on the founding and disbanding of other discourses will test for intramovement mutualism and competition (Minkoff 1995: Ch. 5; Carroll and Hannan 2000: 231-32). Time lags will help specify causal order, including the effects of discursive frame production on SMO
founding and collective action. We expect that the trend in production of discursive frames will indicate a small number of qualitative turning years at which frame transformation occurred, which will be analyzed using event history methods (Allison 1984, 1999).

3. SMO Complementarity, 1980 and 2000. Our third major analysis will examine the two cross-sectional panels of SMO data on goals, organizational characteristics and tactics to test the complementarity thesis and evaluate the changing heterogeneity of the environmental movement. We will begin with correlation and regression techniques and evaluate scaling methods to identify SMO patterns. If conventional protest has diffused and hybrid organizations have increased, this should be evident from low correlations among these components in the 2000 panel compared to the 1980 panel. We will use regression to test the hypothesis that goals determine the selection of SMO structures and tactics. The foundation grants data will tell us whether these are contributing to divergence of SMO structures and tactics from goals as well as reinforce the above descriptive analysis of foundation funding.

4. SMO/Foundation Network Structure, 1960-2000. We will use adjacency matrices to map the network structure of the foundation funding network on the basis of 5-year panels. This will address the changing centralization of this funding network and the relative position of SMOs in this funding network. For 2000, we also analyze the effects of this network structure on SMO financial autonomy.

5. Movement/Countermovement Interaction. The mutual threat that movements and countermovement pose to each other will be examined with an annual time-series analysis of aggregate measures of collective actions by these contending parties. Although there was countermovement activity prior to the 1960s, the major growth of CMOs was post-1970 period, which will limit this to roughly 30 years. We will use descriptive statistics to capture the diffusion of discursive techniques, SMO structures and tactics. 6. SMO Change, 1970-2000. In addition to the above tests of the impact of foundation funding, we will also use comparative case study to examine organizational change of the top five environmental grant recipients and five essentially non-funded SMOs. Linking change in the programs, activities, governance and discursive frames for these ten SMOs to their history of foundation funding will provide a clear test of the control/channeling/facilitation debate and a gauge of how the largest environmental SMOs have changed over 1970-2000.

V. WORK PLAN AND TASKS

This project reflects a long-term collaboration between Jenkins and Brulle, who have worked on a study of foundation funding (Brulle and Jenkins Forthcoming) and the organizational development of the environmental movement. This project builds on this earlier work by constructing new measures of SMO structures, discursive frame production, and collective action as well as countermovement mobilization and organizational change in the leading SMOs. The PIs have already constructed some of the data in the project (our estimation of current completion as of 8/15/04 is below in parentheses). Jenkins is associated with a major graduate program and therefore will be responsible for the major data management and statistical analyses. Brulle has access to excellent undergraduate RAs who will be used for primary data collection. He also has extensive contacts in the environmental community, which will be invaluable for the case studies and primary data collection. Each PI will be responsible for the following tasks: Jenkins (Ohio State University):


2. Collection and coding of foundation grants by EGA members to environmental SMOs for 5-year panels 1960-2000 plus coding of the environmental grants of a ten percent random sample over the 2,500+ foundations that have a history of funding environmental projects. These grants lists have been solicited by letter from all of these foundations, with fill-ins to be constructed from the Foundation Center’s Dialogue database, the environmental grants lists compiled by the Resources for Global Sustainability (a nonprofit that profiles foundations for environmental grantseekers [www.rgs.org]), and the IRS 990s archived at the Center for Philanthropy, Indiana University-Purdue University, Indianapolis, Indiana. (20 percent complete).

3. Construction of political opportunity and political threat time series (10 percent complete)
4. Construction of SMO financial autonomy measures by measures of foundation funding as a percent of SMO receipts for 2000 from the financial records available at the National Center for Charitable Statistics (nccsdataweb.urban.org/NCCS/Public/). (0 percent complete)

5. Descriptive analysis of time-series on movement mobilization; time series regression analyses of movement mobilization, including analyses of discursive frame production, SMO founding and disbanding, and collective action; cross-sectional analyses of SMO goals, structures and tactics; cross-sectional and change analyses of SMO financial autonomy. (0 percent complete) Brulle (Drexel University):

1. Construction of environmental SMO data base for 1900-2000 from multiple environmental directories, environmental conferences, books, and website directories. (50% complete)


3. Construction of elite approval/opposition measures based on content coding Vital Speeches and Presidential State of the Union addresses (0 percent complete)

4. Construction of measures of CMO resources, founding and mortality from CLEAR files for 5-year panels for 1975-2000. (0 percent complete)

5. Construction of environmental degradation measures (0 percent complete).

6. Network analysis of the environmental foundation funding system (0 percent complete).

7. Construction of the case histories of the major environmental SMOs. (10 percent complete)

Schedule of Activities. The project timeline is three years, which we plan to organize as follows:

**Year One:**
1. Completion of foundation grants database and environmental SMO database; merge of these; descriptive analyses.
2. Network analyses of foundations/environmental SMO interaction
3. Collection of countermovement organizational data/review of CLEAR files
5. Drafting of general audience articles on trends in environmental philanthropy and environmental SMO founding/mortality

**Year Two:**
1. Content analysis of ProQuest Historical Newspapers files to construct measures of environmental action, countermovement action and environmental disaster events
2. Content coding of Vital Speeches and State of the Union Addresses
3. Construct political opportunity/threat measures.
4. Construct case studies of major environmental SMOs.
5. Construct financial autonomy measures of SMOs and conduct analysis of network autonomy and financial autonomy.
6. Time-series analyses of environmental action, discursive frame production and SMO founding/mortality

**Year Three:**
1. Further time-series analyses of #6 above
2. Drafting of articles for submission to professional review

**VI. BROADER IMPACTS**

The distinctive contributions of this project are providing a stronger basis for analyzing social movement mobilization, especially the interactions among cultural change, organizational development and collective action. In
the process, we bring cultural theory to bear along with organizational and collective action theory. We examine one
of the major social movements of the 20th century and address such fundamental questions as what creates frame
transformations, the organizational development of movements and how this interacts with discursive frame
production and collective action, the structure of the environmental funding system and the impact of foundation
patronage on environmental mobilization, and the extent of intramovement mutualism and competition. The project
will also create major new data archives, which will be distributed for secondary data analysis through our website
(www.pages.drexel.edu/~bruller/Envirorg.htm; and www.sociology.ohio-state.edu/people/jcj/greenmoney.htm).
This work will have several audiences. First, it will address central concerns of social movement scholars and
environmental sociology through a series of journal articles and a monograph-length treatment. It will also have
major audiences in the philanthropic and environmental communities, which are largely ignorant about trends and
practices in their fields. Systematic research of the type we propose is virtually unheard of and we will play a major
role by making this data available to these audiences. We will distribute reports on the project through our project
websites as well as through publication in suitable outlets (e.g. Foundation News, E Magazine, Sierra). Our
preliminary analysis (Brulle and Jenkins Forthcoming) was presented at the Environmental Justice Summit II and
we have been contacted about participation in the annual 2005 meeting of the Environmental Grantmakers
Association.

Our project website will be restructured to target these various audiences to distribute our data and articles. We will
advertise this web site through professional associations, such as the American Political Science Association, the
American Sociological Association, the Society of Environmental Journalists, and the Society for Environmental
History. The project will contribute to the education and training of at least two graduate students and several
undergraduates and improve the courses taught by both PIs in the areas of social movements, political sociology,
research methods, and environment-society interactions.

The major theoretical contribution will be to social movement theory, where the dialogue between cultural,
organizational and political theories has been limited by inadequate data. Bringing different components of
mobilization together in a single analysis will advance our understanding of how movements mobilize. Of special
importance is evaluating the significance of cultural production on movement mobilization and balancing the
analysis of SMO survival and mortality with the analysis of collective action. It will also provide environmental
sociologists with a stronger understanding of environmental mobilization and its potential impact on addressing
underlying environmental problems. Our long-term aspiration is to expand this to analyze the political and policy
impact of the environmental movement, including the impact of environmental mobilization on underlying
environmental problems. This is important to the broader academic community that is concerned with environmental
problems and our societal capacity for creative innovation. On the practical plane, this research will foster a
reflective examination within the environmental movement and the philanthropic community.

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