From Game Protection to Wildlife Management: Frame Shifts, Organizational Development, and Field Practices

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ABSTRACT One enduring question in social movements research is the relationship between cultural representations and organizational structure. In this article, we examine the development of different discursive frames over time, and how such frame shifts affect movement structure and practices. This approach seeks to illuminate the dialectical interplay between the movement community’s discursive frame and its practices, and thus expand our understanding of the process of social movement growth and change. Through a close qualitative and historical analysis of a discursive shift within the hunting community of the United States in the 1930s from a focus strictly on game protection to a more expanded discursive frame of wildlife management, we show how this cultural shift led to major changes in both the organizational structure and advocacy goals of this social movement. We conclude with a discussion of how this process can be further studied.

Introduction

Social movements present an astonishing array of diversity in their issue focus, organizational characteristics, goals, and strategies. One way to understand this complexity is to view social movements as communities of historically developed networks of communicative action based on multiple discursive frames. These discursive frames form the basis for the many different forms of action, organization, and objectives within any given social movement. Thus discursive frames form the cultural resources that shape, motivate, and give meaning to collective action (Benford and Snow 2000; Snow 2004; Williams and Kubal 1999). Yet despite their importance, our understanding of their origin and change remains underdeveloped (Benford 1997). The analysis of social movement 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; della Porta and 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. Shifts in the discursive frame of a social movement, either through the development of new frames or transformations of existing ones, can change the movement’s characteristics. However, a static or particularistic analysis is, by definition, unable to view this process. As a result, our knowledge of the development of social movement frames and how this affects a movement organization’s practices remains limited.

In this article, we seek to expand our understanding of social movement development and change. Using one particular frame and organizational shift within the U.S. environmental movement, we provide both a historical and empirical examination of the dynamics of how cultural innovations led to institutional changes. Specifically, we focus on the frame shift from game protection to wildlife management that occurred in the United States between 1930 and 1940. This frame shift resulted in a wholesale change in the practices of this field, including the transformation of movement organizations, and ultimately in new federal legislation and the creation of new government institutions that resulted from the newly defined movement’s advocacy. We hope that this analysis will illuminate the dialectical interplay between the movement community’s discursive frame and its practices, and thus expand our understanding of the processes associated with social movement growth and change (Dreyfus and Rabinow 1982).

We begin with an elaboration of the theoretical framework that informed our empirical analysis. Using a combination of frame analysis, its extension into ideological structured action, and field framing, we develop a perspective on the interplay between discursive frame shifts and organizational practices. In the second section we discuss the methodology we employed to measure frame dynamics, particularly our use of the text holdings of the Library of Congress (LOC). We then present the results of the analysis: first, a historical discussion using original historical materials on this frame shift and then an empirical analysis of the impact of this shift using both the Library of Congress data and an analysis of the founding and disbandment of movement organizations during this period. Together, the historical and empirical analyses show the development of an alternative discursive frame, and how this frame shift affected both movement organizations and the practices of the federal government. We conclude with some further discussion regarding the development of movement studies.

The Cultural and Institutional Dynamics of Social Movements

Within social movement theory, one major approach to understanding social movements is encapsulated in the idea of cultural dynamics. Based
on a linguistic perspective, this approach focuses on the construction of discursive frames capable of providing a map of the social world within which individuals can collectively mobilize (Rochon 1998). The cultural approach to social movements (Melucci 1989, 1996; Rochon 1998; Snow 2004; Zald 2000) assigns primacy to cultural developments in understanding the dynamics of social movements (Lounsbury, Ventresca, and Hirsch 2003). This approach includes a number of perspectives, including discourse analysis, ideologically structured action, and field frame analysis. Common to all of these perspectives is the emphasis on the creation and dissemination of new worldviews, the development and structuring of social movement organizations based on these alternative worldviews, and the competition of these movement worldviews with dominant worldviews for cultural hegemony. Thus, from a cultural perspective, social movements “can be viewed as communities of discourse engaged in the enunciation of new cultural codes that very often contest dominant representations” (Taylor and Whittier 1995:181).

For the past 25 years, social movement scholars have utilized Goffman’s (1974) frame analytic perspective to focus on the social construction, maintenance, and alteration of social movement worldviews (Benford and Snow 2000; Snow et al. 1986; Stewart, Smith, and Denton 1989). One of the central analytic foci has been the development of a movement’s discursive frame (Benford 2011; Petersen 2007; Snow 2004, 2008; Snow, Vliegenthart, and Cooigall-Brown 2007). This socially constructed interpretation of history describes the origins of the movement, heroic exemplars of the movement, its process of development, and its future agenda (Benford 2002; Davis 2002). Such narratives help to define and delimit a group identity for a movement’s organizations and serve to guide collective actions (Hunt, Benford, and Snow 1994). They define the situation, place the interaction within a specific historical and social context, and provide a vehicle to tie the individual’s personal identity to collective action (Hunt and Benford 1994). A particular discursive frame defines the “fundamental categories in which thinking can take place. It establishes the limits of discussion and defines the range of problems which can be addressed” (Wuthnow 1989:13).

The construction and maintenance of movement organizations is also enabled by common acceptance of the discursive frame. Adherence to a common discursive frame establishes an operative reality, which delineates the basis for a regularized social practice. By establishing a taken-for-granted image of social reality, the members have a basis for acting together (Berger and Luckmann 1966). This symbolic reality is then utilized by a human community in forming social action (Bourdieu 1972). The acceptance of a common symbolic reality “constitutes in
effect the ‘agreement’ between members that enables the orderly production of role enactment” (Brown 1978:374). By sharing a collective worldview, participants in a social movement engage in a common language game (Wittgenstein 1958), with its own particular definitions of acceptable practices, issue focus, and relationships. The discourse of an organization translates the specific social conditions and mobilization potential into a reality that frames the movement’s identity. This collective identity in turn influences the organization’s tactics and methods of resource mobilization (Benford and Hunt 1992; Brulle 2000; Gamson 1991; Knoke 1990; Snow and Benford 1988; Zald and Ash 1966). It also defines a network of communicative action that can be seen as an epistemic community. This network defines the scope and strength of the movement organization, relationships with other movement organizations, and relationships with other institutions, including elite organizations (Caniglia 2001).

The discursive frame is embedded and realized in the organized practices of the social movement organization. As the community of actors redefines its discursive frame, it also redefines its organizational practices. Thus a movement organization’s characteristics are altered by shifts in the movement’s discursive frame, whether due to the development of new or innovative frames (Benford 2005), strategic transformations of existing ones (Benford and Valadez 1998), changes resulting from intramovement “frame disputes” (Benford 1993), reframings in response to opponents’ counterframing tactics (Benford and Hunt 2003; cf. Ryan 1991), or frame diffusion from one movement to another or from one culture to another (Snow and Benford 1999). Moreover, the collective perception of political opportunities and threats, the legitimacy of organizational forms, and resource constraints often depend on transformations of master frames (McAdam, McCarthy, and Zald 1996). Political opportunities and threats must be collectively perceived to actually affect movement actions and this often depends on discursive frame transformations (Gamson and Meyer 1996; McAdam 1999).

The relationship between movement organizations that constitutes the larger organized social movement is also culturally shaped. The relationship between cultural and overall movement structure can be viewed through the use of the theoretical approach known as ideologically structured action. 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). Organizations that adhere to similar ideological worldviews or discourses share a common sense of goals and methods, which then
leads to the creation of alliances between institutions that share such a common frame (Zald 2000:10). Adherence to a common discursive frame creates the bases for a regularized social practice (Goffman 1974). Based in part on this collective identity, a network of interaction is formed that constitutes a social movement.

Diani (2000) further elaborates this perspective. He maintains that social movements should be regarded as “non-hierarchical network forms of organization with boundaries defined by collective identity—i.e., by actors’ mutual recognition as members of the movement linked by a distinctive culture and solidarity” (22). A shared collective identity forms the basis for “joint participation in campaigns, consultations, shared personnel, and shared identities” (22). Accordingly, he maintains that we can view movement networks “as a reflection of the logic of action by which social movement organizations select their allies, pool resources, build identities which go beyond the boundaries of any single social movement organization” (23). From a cultural perspective, we can posit that a dialectical relationship exists between an organization’s discursive frame and relationships with other organizations. The discourse of an organization translates the specific social conditions and mobilization potential into patterns of perception that frame the movement’s identity. This identity then influences the organization’s tactics and methods of resource mobilization (Benford and Hunt 1999; Brulle 2000; Gamson 1991; Knoke 1990; Snow and Benford 1988; Zald and Ash 1966). It also yields a network of communicative action that can be seen as a social movement.

Culture also plays an important role in defining the larger nature of the struggle over the appropriate discourse to define a field of practice. The approach known as field analysis focuses on the network of interactions among actors that are either challenging or stabilizing a field of practice. The field frame constructs a social reality in which “all participants are at once producers and consumers caught in a complex web of social, political, economic, and cultural relations that they themselves have in part woven and continue to weave” (Ferguson 1998:598). These frames are political constructions that define appropriate and inappropriate practices in a given area (Lounsbury et al. 2003). For example, in their analysis of the field frame governing waste disposal practices in the United States, Lounsbury et al. describe the struggle over the governing frame that legitimized incineration of waste, which took the form of “waste to energy.” Social movement organizations successfully challenged this field frame, which was then replaced by the field frame of “recycling.” By redefining the field frame governing this practice, the social movement was able to change industrial practices.
Field frames emerge and are changed through cultural struggles (Lounsbury et al. 2003). These cultural struggles take place among industry organizations and their trade associations, professional bodies, government actors, and social movements (DiMaggio and Powell 1983). Gramsci (1971) provides several important insights into the cultural dynamics of social change. First, since social practices are based on the acceptance of a dominant field frame, changes in practice are brought about through a redefinition of what constitutes the common sense embodied in the field frame. Accordingly, the maintenance and change of cultural systems is a key locus of political struggle (Bourdieu 1985). The creation and advocacy of an alternative field frame provides a source of authority from which to challenge the hegemonic worldview (Wuthnow 1989). This challenge takes the form of a political struggle to delegitimize and thus deinstitutionalize the hegemonic frame and to establish the dominance of an alternative frame (Lounsbury et al. 2003). From a cultural perspective, the political community is seen as organized around the interaction between the dominant worldview and alternative challengers. This competition between the dominant and alternative worldviews is best described by the notion of cultural hegemony. The successful mobilization and reproduction of the active consent of the dominated groups by the ruling class is made possible through the ruling class’s exercise of intellectual, moral, and political leadership (Mann 1970). These hegemonic ideas form a collective will that unifies a political alliance. Based on cultural developments, there is also a political struggle between different political alliances. This struggle takes the form of a “war of position” where the different alliances face off against each other in elections and in other political confrontations. It is at this point that the struggle over political actions takes the form of social movement actions carried out by committed populations in identifiable organizations (Touraine 1977).

Focusing on the struggles over field frames allows an examination of how cultural structures help to “stabilize power arrangements, interaction patterns and particular arrays of practices” (Lounsbury et al. 2003:76). By encouraging a focus on how social practices are defined and changed through redefinition of the field frame, it allows an analysis of how features of the cultural context such as beliefs, values, and prevailing meanings of symbol systems are deployed and shaped by such structural conditions as actors’ access to resources, power, and authority (Spillman 1995; cf. Brulle 1994).

Movement frames are thus historically developed meaning structures that provide an identity to specific networks of collective action.
An examination of how discursive frames originate, change, or are superseded can provide an understanding of the overall development of social movements. From a cultural perspective, social movements originate with the intellectual production of new discursive frames in “critical communities,” 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” (Rochon 1998:24–25). These actions create a discursive frame that defines a social movement and allows for both the recruitment of members and the formation of organizations. This frame also provides a system of shared cultural beliefs that creates a network of action among culturally aligned organizations. Finally, use of the perspective of field framing allows an examination of how social movements enter into cultural struggles to redefine a field of practice.

The cultural perspective on social movements implies that the growth and dynamics of movement organizations will be affected by the cultural development and expansion of new discursive frames. We would thus expect to see a relationship between intellectual production and the expansion of social movement organizations. This leads us to our first hypothesis:

**Hypothesis 1**—Development of a new discursive frame will lead to an expansion of social movement organizations informed by that frame, and a decline in the movement organizations based on the superseded frame.

Additionally, as the social movement organizations come to accept the new discursive frame, we also would expect that this could lead to the transformation of the field of practice if the movement is successful. This leads us to our second hypothesis:

**Hypothesis 2**—Development of new social movement organizations based on a new discursive frame can alter field practices.

**Data and Methods**

The increased use of linguistic perspectives has led to the development of quantitative measurement of meaning structures. These methods examine changes of meaning structures that operate at the institutional level of society by focusing on the “principles that serve to organize the larger complexity of relational patterns” (Mohr 1998:351). Applying this perspective to the analysis of social movements involves identifying the discursive frames of the social movement, ascertaining the relationships...
that exist between the various components of this discursive frame, and
finally, analyzing the relationships between discursive frames and orga-
nizational practices.

To examine the shifts in the framing and organizational structure in
the wildlife management field, we employ four different approaches.
First, we draw on extensive historical sources to provide a descriptive
narrative of the transformation of the original movement for game
protection into the wildlife management movement. This narrative
covers the period from the origins of game protection in the nineteenth
century through its transformation in the 1930s.

Second, we examine the shift within the movement’s intellectual
community regarding the transformation of the discursive frame from
game protection into wildlife management (Donati 1992; Lofland 1995).
One specific means of measuring cultural frames is through an exami-
nation of the “corpus of social movement organization intellectual mate-
rials” (Lofland 1996:133) produced over time. In our examination, we
use the production of books in specific subject headings. As noted by
rhetorical and claims-making activity—an act of framing—which is
aimed at mobilizing potential adherents and constituents, gaining
bystanders support and demobilizing antagonists.” Thus quantities of
book production provide one empirical measure of the development
and change of meaning structures, and provide a historical archive of
the nature of the concerns and activities of a specific intellectual
community.

A unique resource for the measurement of the development of dis-
courses is the collection of texts held by the U.S. Library of Congress.
This is the single largest collection of texts in the United States, totaling
over 24 million books and pamphlets. This library provides a unique
source for research into the production of books in the United States. As
the largest library, it essentially represents the population of book pro-
duction in the United States. Since the Copyright Act of 1870, the library
has been the centralized depository of all texts copyrighted in the United
States. In addition, the subject classification scheme used by the Library
of Congress reflects the most prevalent and longest running character-
ization of texts copyrighted in the United States. Since its creation in
1895, this subject heading system has been developed through a gradual
process of accretion, without the use of a specific code that establishes
when changes in the subject heading are needed. Because of this process
of gradual development, the Library of Congress subject heading system
generally reflects the normally accepted scholarly definition of subject
areas.
Environmental book publication is also more relevant to the problem-defining activities of political entrepreneurs and critical communities. Arguing that social movements are spawned by the discourse that defines activities of political entrepreneurs, Rochon (1998) shows how the publication of books and popular magazine articles helps to create discourses that define problems, assign responsibility, and devise strategies for addressing these problems. The central actors are critical communities (Rochon 1998). By publishing books and popular articles, figures such as George Perkins Marsh (1864), Upton Sinclair (1906), Rachel Carson (1962), and Barry Commoner (1971) highlighted environmental hazards and possible solutions that may have spawned new environmental movement organizations (EMOs).

Third, we examine the transformation of EMOs associated with wildlife management. To measure the transformation of existing EMOs with the discursive frames of game protection and wildlife management, we used the comprehensive listing of national and regional environmental organizations developed by Brulle and his colleagues (Brulle et al. 2007). In addition, we examined the specific organizational descriptions provided in the Conservation Directory to further document the transformation of EMOs from 1929 to 1939. The Conservation Directory began in 1900 as the Directory of Officials and Organizations Concerned with the Protection of Birds and Game, and the Department of Agriculture published it annually until 1935, when its current publisher, the National Wildlife Federation, took it over. Thus it provides a unique source of information about the organizational transformation of these organizations.

Fourth, to measure the shifts in the popular press, we counted the number of magazine articles listed in the Readers Guide to Periodic Literature under the subject headings of “Game Protection” and “Wildlife Management.” This approach enables the measurement of both the nature and quantity of media coverage of this issue.

The Historical Transformation from Game Protection to Wildlife Management

The historical literature on the U.S. environmental movement shows several shifts in its discursive frames, such as the shift from nuisances to air and water pollution around 1900 (Brulle 1996; Rome 1996). One of the most dramatic shifts in environmental frames occurred in the 1920s and 1930s in the shift from game protection to wildlife management.

Throughout the nineteenth century, the dominant approach to regulating hunting in the United States was defined by the discourse of game protection. This approach originated in the British aristocratic sporting
tradition, and included proper social etiquette for hunting. This meant that hunting had to be performed in accordance with a strict social code, including taking steps to not overhunt a particular species (Reiger 1975). This code took on a more important meaning as concerns over the decimation of American wildlife increased in the 1840s (Bean 1978; Reiger 1975). Based on this ethic, a number of sportsmen’s hunting clubs began advocating controlling the use of wildlife by placing bag limits and controlled hunting seasons. The idea was that by limiting hunting to the increasingly scarce wildlife resources, the decimation of particular game species could be avoided (Gilbert and Dodds 1987; Trefethen 1961). This ethic was elaborated over the second half of the nineteenth century, and resulted in the well-defined discourse of game protection. The core of this discourse was the notion “that restriction of hunting could ‘string out’ the remnants of the virgin supply, and make them last a longer time” (Leopold 1932:16–17).

The concern for the plight and decimation of American wildlife developed into a number of state and local “sportsmen’s clubs” to foster the development and practice of game protection. By 1878, Hallock’s American Club List (Hallock 1878) listed 317 sportsmen’s clubs. These clubs had a vast influence at the state and local level in the development and implementation of hunting laws and regulations. By 1880, all 48 states and territories had game protection laws. In the late 1880s and 1890s, a national game protection movement emerged. A number of national organizations were founded, including the Society for the Prevention of Cruelty to Animals, the Audubon Society, the Boone and Crockett Club, the National Game, Bird, and Fish Protective Association, and the National Sportsmen’s Association. By 1900, there were thousands of state and local game protection groups, and eight national groups working on this issue. The major result of the national effort was the passage in 1900 of the Lacey Act. The purpose of this act was to stop the decimation of species due to overhunting. This act, based strictly on the approach of game protection, banned the interstate shipment of birds and mammals taken in violation of state laws (Trefethen 1961:122).

By 1900, there was a well-defined field of game protection. It had a number of advocacy groups active at all levels of the government, a series of state laws regulating hunting, and a growing professional group of game commissioners and wardens (Trefethen 1961). From the 1840s to 1900, the idea of game protection had moved from an informal ethical code into an established legal requirement, enforced by a number of advocacy organizations and government institutions. Thus the game protection movement was well established as the twentieth century began.
The establishment of game protection as the defining approach to animal policy lasted well into the 1920s. However, throughout the 1920s, a number of developments spawned a profound reorganization of how wild animals were to be regulated. A conflict emerged representing a "clash of old against new—of the 'positive production' and 'flexible legislation'... pitted against the 'negative protection' and 'inflexible law' of the old preservationists" (Trefethen 1961:251). This struggle erupted due to the confluence of a number of related events. The first major development regarding animal policy was the emergence of animal ecology as a distinct scientific discipline (Dunlap 1988:63). The creation of this science laid the groundwork for the subsequent development of the practice of wildlife management.

Charles Elton was one of the leading pioneers in the development of animal ecology. His book *Animal Ecology*, published in 1927, laid the scientific foundations for this discipline. His work provided an entirely new set of concepts, including the ideas of “food chains, the food cycle, trophic levels, and niches,” which “put flesh on the skeleton of the ‘balance of nature.’ ” Thus the development of animal ecology “provided ways to analyze animal communities” and provided “theories that could be used in the field and which could guide policy” (Dunlap 1988:71).

Coupled with the publication of *Animal Ecology*, Herbert Stoddard published a detailed analysis in 1931 that applied the concepts of Animal Ecology to the management of quail (Stoddard 1931). This study began in 1923 at the request of wealthy New York sportsmen to assist in the management of their quail hunting preserves. He conducted a series of quantitative animal ecology studies, and developed a series of applied practices that used ecological principles to encourage the increase of quail. This publication was one of the first scientifically based game management books. Following the success of Stoddard’s study, Aldo Leopold, a professor at the University of Wisconsin, duplicated his research on the quail population near that university (Dunlap 1988:71–72).

Research on the ecology of several species rapidly increased. There were a number of scientific studies of animal community ecology, including studies of the wolves in Mt. McKinley Park in Alaska, coyotes in Yellowstone, and the wolf-moose interactions on Isle Royale in Lake Superior. The cumulative effect of this scientific development was to change the notions of how species interacted. Rather than the study of individual biology of different animals, the ecological perspective
focused on the interactions between animals, geographic conditions, and plant life. This led to new insights into the role of predation on maintaining healthy species and checking overpopulation and the role of habitat destruction in species declines (Dunlap 1988:71–76). By the end of the 1920s, animal ecology was a well developed scientific perspective. For those involved in managing the nation’s wildlife, its utility was apparent.

One of the key figures in applying the knowledge of animal ecology in the development of new wildlife management techniques was Aldo Leopold. In 1929, Leopold published a private report on managing wildlife and also conducted a series of lectures on this topic at the University of Wisconsin. In 1931, he published a series of articles in professional journals arguing for a new approach to game management that would focus on increasing the supply of wildlife using scientific knowledge developed by the discipline of animal ecology. These articles were then published in his book *Game Management* in 1932.

Leopold argued for a shift in the discourse away from game protection and toward the new concept of wildlife management. He argued that the problem with game protection was its limited scope. Leopold argued that the core idea of game protection was to perpetuate, rather than to improve or create, hunting. To that point, as we noted earlier, the prevailing wisdom was that the restriction of hunting could “string out” the remnants of the virgin supply, and make them last a longer time (Leopold 1932:16–17). For Leopold, this approach had failed: “In short, the attempt to control hunting has suffered . . . from the persistence of the concept that all hunting is the division of nature’s bounty. We must replace this concept with a new one: that hunting is the harvesting of a man-made crop, which would soon cease to exist if somebody somewhere had not, intentionally or unintentionally, come to nature’s aid in its production” (Leopold 1932:210). This new approach defined the discipline of wildlife management, which Leopold defined as “making land produce sustained annual crops of wildgame for recreational use” (3) or as “the art of cropping land for game” (ix).

The basis of wildlife management was the application of the concepts of animal ecology to the management of wild areas. It defines several steps in increasing the supply of wildlife in a given area, such as predator reduction and the establishment of wildlife refuges to allow species reproduction. Since, as Leopold noted, a given habitat can support only a fixed number of wildlife, the additional population of wildlife above this level is an excess, and can be harvested, either through controlled hunting or predation or disease. To allow this surplus population of animals to be harvested by disease and predation would be wasteful, and
in Leopold’s words, it would be akin to “saving a crop of corn by leaving it unharvested in the field” (Trefethen 1961:16). This excess population of wildlife could serve as a supply of animals available for recreational use in sport hunting. Following the techniques of wildlife management, Leopold maintained, could create a perpetual supply of game animals for hunting.

Following publication of this book, Aldo Leopold became the first professor of game management at the University of Wisconsin in 1932. At the University of Iowa, Ding Darling also developed a course of study in wildlife management. In addition, other institutions developed cooperative wildlife education programs, first at the University of Iowa in 1932. By the early 1930s, the new discourse of wildlife management had become well established.

The development of the practice of wildlife management came into being during a wildlife crisis. In the 1920s, there was already a great deal of contention regarding the utility of the game protection approach. As Dunlap (1988:65) noted, “By the 1920s the program that hunters and wildlife conservationists had urged on legislatures had been in place for twenty to thirty years. The results were disappointing. States had cut bag limits, enforced game laws, encouraged the destruction of predators, and introduced or reintroduced game species, but the hunting was no better than it had been. In some cases it was worse. . . . There was policy—in the sense of agreed-upon actions—but it was not working.”

The issue of appropriate animal policy was brought to a head by the weather. At the beginning of the 1930s, the Midwest was suffering through the great drought that eventually led to the dust bowl. As a consequence of this drought, the breeding and feeding areas of migratory waterfowl dried up. As a result “the duck population sank from 100 million in 1930 to 20 million four years later” (Fox 1981:191). This created a “wildlife crisis,” and demands for the federal government to enact better wildlife policies. Wildlife management answered this need: “Wildlife people seeking reasons for the failure of the older methods and those looking for a scientific base embraced the new science. It was an ideal time. The old methods had failed; there seemed to be a scientific base for action; and the public was interested in game” (Dunlap 1988:76).

In response to the increasing calls for action, President Franklin Roosevelt created the President’s Committee on Wildlife Restoration at the end of 1933, and charged it to develop policy recommendations to remedy the depletion of wildlife (Allen 1987; Fox 1981). Two strong advocates of wildlife conservation were appointed to the committee—J. N. Ding Darling and Aldo Leopold. The committee’s report, issued in
January 1934 (USDA 1934), was a blueprint for an entirely new approach to wildlife policy based on wildlife management (Fox 1981).

This report received substantial support from the growing wildlife management advocacy community. The grassroots component of the wildlife management program had grown rapidly during the 1920s. In 1929, there were 21 national advocacy organizations working on this issue. Especially notable was the Izaak Walton League. This organization, founded in 1922, had rapidly expanded, and by 1926 it had “three thousand chapters in forty-three states with an aggregate membership of more than 100,000” (Trefethen 1961:183). Additionally, in 1934, it was estimated that there were over 6,000 sportsmen’s and conservation clubs in the United States (Trefethen 1961:226). Because of their size and ability to generate publicity for their cause, these organizations had considerable influence on the reception of this report by the president. Attached to it were statements from 47 advocacy organizations supporting the conclusions of the report (USDA 1934:vii). The political force of this report was clear.

Movement leaders were also busy building financial support for action. Darling held a meeting in 1935 with a number of industrialists, including representatives of DuPont, the Hercules Powder Company, and the Remington Arms Company. These companies, all manufacturers of arms and ammunition, had a vested interest in ensuring there was an adequate supply of wildlife to support large-scale hunting. They agreed to provide funding (1) for efforts to federate the organized sportsmen of North America, (2) to stage a large national wildlife conference in Washington, and (3) to help underwrite the proposed wildlife training courses at the land-grant colleges (Trefethen 1961:269).

The response to this situation by the White House was to fully implement the requests of the wildlife management advocates. In February 1936, Roosevelt called the first North American Wildlife Conference. Its purpose was “to bring together individuals, organizations, and agencies interested in the restoration and conservation of wildlife resources” (U.S. Government 1936:iii). The organizer of the conference had his own ideas. Ding Darling aimed to create an organization capable of creating effective political demand to ensure that the ideas of wildlife management were fully realized.

Nearly 2,000 delegates attended the conference (Allen 1987), and over 100 representatives of federal, state, and local government agencies, nongovernmental organizations, academics, politicians, and corporations made presentations. The conference included 12 sessions on special topics of concern, among them farmer-sportsman cooperatives, fish management, forests and forest wildlife, pollution, and the
problem of vanishing species (U.S. Government 1936:iv–x). The out-
growth of this conference was the ascendance of wildlife management
as the strategy for the preservation of wildlife (Gilbert and Dodds
1987:8). Participants, under the leadership of Ding Darling, drafted
the constitution of the National Wildlife Federation (Gilbert and
Dodds 1987:9). This organization was intended to serve as a united
voice for wildlife conservation. In addition, the Wildlife Society formed
at this conference (Gilbert and Dodds 1987).

Existing game protection institutions rapidly adopted the new dis-
course of wildlife management, and it resulted in their transformation
(Gilbert and Dodds 1987; Trefethen 1961). For example, the American
Game Protective and Propagation Association, founded in 1911, became
defunct in 1935 (Haskell 1937). Additionally, the annual American
Game Conference was terminated and replaced by the North American
Wildlife Conference (Gilbert and Dodds 1987:8). Several organizations
changed names, such as the American Game Protection Society, which
became the American Wildlife Institute in 1936. Finally, a number of
organizations were founded during this period.

Newspaper accounts of the American Game Conference and the
North American Wildlife Conference portray a very different movement.
The last American Game Conference in 1935 (attended by only 200
delegates) ended in disharmony over a measure to address the crisis in
waterfowl populations by prohibiting all hunting of waterfowl that year
(Greenfield 1935). In contrast, at the Second North American Wildlife
Conference, held in 1937, there were over 1,500 delegates. Most im-
portantly, the conference’s formation explicitly centered on wildlife
management. The New York Times correspondent described this new
approach as follows:

In this metropolis of the Middle-west, situated on the fringe of
the dust bowl, more than 1,500 outdoor enthusiasts from every
State in the Union will assemble to adopt a far reaching program
in which the welfare of birds, fish and game will be a subordinate
concern. First consideration, based on a new conception of the
relationship between land utilization and wildlife will go to
projects for the preservation of the nation’s renewable natural
resources. It is realized that unless land and water resources are
saved there can be no wildlife (Greenfield 1937).

The shift to wildlife management as the dominant discourse defin-
ing this field of practice coincided with a rewriting of the federal laws
on wild animal policy (Gilbert and Dodds 1987; Trefethen 1961). To
implement this new approach of active management of game animals,
a number of new wildlife protection laws were passed in the 1930s. One of the first key acts was the 1934 Duck Stamp Act. This act required that all persons engaged in hunting migratory birds purchase a federal “duck stamp.” This act thus placed the federal government in the role of defining hunting seasons for migratory birds. Additionally, the funds from the sale of duck stamps were supposed to be used to develop a system of wildlife refuges. Congress, however, did not earmark the funding and provided little new money for the development of wildlife management practices. Following the 1936 North American Wildlife Conference, the Biological Survey and the Bureau of Fisheries were combined to form the U.S. Fish and Wildlife Service in 1936 to better administer the new approach to wildlife policy at the federal level. Additionally, the Pittman-Robertson Federal Aid in Wildlife Restoration Act was passed in 1937. This law earmarked the federal excise tax on sporting arms and ammunition for use by state and territorial fish and wildlife agencies for use in wildlife land acquisition, development, and research, and forbade the diversion of state hunting license revenues to any purpose other than wildlife management. Based on this new authority and secure funding, the development of the national system of wildlife refuges was created. In addition, the application of wildlife management practices had substantially solved the issue of ensuring appropriate stocks of wildlife for recreational hunting and fishing (Trefethen 1975).

The foundations for the current laws and organizations in wildlife management were thus firmly established in the late 1930s. The system of wildlife management developed in the United States has spread around the globe, and now constitutes the standard for wild animal policy. These foundations have undergone little significant change since that time. In a little more than a decade, there was a shift in the discursive frame, changes in the associated social movement organizations, and institutionalization of this new practice in laws and government institutions.

**Empirical Measurement of Discursive and Organizational Transformations**

This historical analysis is reflected in a number of measurable transformations in three different areas: (1) the dramatic shift from the discursive frame of game protection to wildlife management in the movement’s intellectual community, (2) reorientation and reformation of the EMOs associated with this issue, and (3) reframing of the popular discourse around the new discursive frame.
Discursive Shift in the Intellectual Community

To examine this shift, we examined the Library of Congress holdings associated with wildlife management. There are two associated subject headings in this area. They are “Game Protection,” initiated in 1910, and “Wildlife Conservation,” initiated in 1937. Figure 1 shows their percentage distribution over time. There was a dramatic shift in text production associated with the historical shift from game protection to wildlife management. In 1935, virtually all of the books in this area were in the heading game protection. By 1940, the percentage of books in game protection dropped to just below 10 percent. Over 90 percent of the books published in 1940 were classified in the subject heading of wildlife conservation. From 1940 to 1960, there was a slight increase in texts in game protection. But by 1960, the production of texts in game protection declined, and essentially ceased.

These data illustrate the overwhelming shift in this discursive frame that occurred during the 1930s. This preliminary examination supports the idea that there is a link between discursive frame shifts, associated institutional changes, and the record of text production by the Library of Congress. The changes in LOC subject headings and the number of texts produced under each heading are empirical indicators of changes in discursive frames. However, it is clear that text production lags institutional changes. What this most likely indicates is that a few key books written before the frame transformation appear, and are

Figure 1. Game Protection and Wildlife Conservation Book Production 1910–2000.
placed in the old LOC category. After the new discursive frame is established, production of texts in the new frame increases, and these new books are easily categorized. When it is clear that the new category should apply to previously categorized texts, the LOC will retroactively recategorize them. This was the case with *Game Management*, which was retroactively recategorized from game protection to wildlife conservation.

**Organizational Shifts of the EMO Community**

Table 1 shows changes in the founding of social movement organizations throughout the twentieth century in either game protection or wildlife management. Table 2 specifically lists social movement organizational transformations during 1930–1939. As this table shows, of the original 21 EMOs that existed in 1930, only 12 remained in existence in 1940. Thus this community of organizations experienced a mortality rate of 43 percent during one decade. Additionally, there were 22 new organizations founded, 17 of which survived to the end of the decade. The EMO wildlife management community consisted of 29 organizations. Of that total, 17 or nearly 60 percent had been founded in the previous decade. To put this into historical perspective, Figure 2 shows the percentage changes in organizations by decade. Here the significant impact of the 1930s transformation of the game protection movement into the wildlife conservation movement is very clear.

These indicators can only approximate the extent of organizational shifts. For example, a name change in an organization could indicate a superficial change in order to better fit into the newly emergent discourse, or a profound transformation in that organization. Also, because an organization did not change its name does not mean the organization did not undergo a major reorganization. However, the extent and timing of the founding and failures of organizations that coincided with this discursive and legal shift provide credible evidence that this part of the environmental movement underwent a significant organizational shift. Additionally, while some of the organizational shifts might have first been symbolic, by the end of the 1930s, all of these movement organizations were operating in a new political and legal environment that required a shift in their institutional practices.

**Reframing of Popular Discourse**

Press coverage of this issue also reflected the shift in both the academic discipline of wildlife management and the associated EMOs. Figure 3
Table 1. National Game Protection/Wildlife Management Advocacy Organizations.

<table>
<thead>
<tr>
<th>Decade</th>
<th>No. of Organizations Founded</th>
<th>Defunct</th>
<th>10-year Net Turnover (Founded + Defunct)</th>
<th>Total Wildlife Management Organizations</th>
<th>% Organizational Death</th>
<th>% Organizational Growth</th>
</tr>
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<tbody>
<tr>
<td>1900–1909</td>
<td>3</td>
<td>3</td>
<td>6</td>
<td>8</td>
<td>27</td>
<td>18</td>
</tr>
<tr>
<td>1910–19</td>
<td>7</td>
<td>1</td>
<td>8</td>
<td>14</td>
<td>13</td>
<td>88</td>
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<td>1920–29</td>
<td>9</td>
<td>2</td>
<td>11</td>
<td>21</td>
<td>14</td>
<td>64</td>
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<td>1930–39</td>
<td>22</td>
<td>14</td>
<td>36</td>
<td>29</td>
<td>67</td>
<td>105</td>
</tr>
<tr>
<td>1940–49</td>
<td>8</td>
<td>3</td>
<td>11</td>
<td>34</td>
<td>10</td>
<td>28</td>
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<tr>
<td>1950–59</td>
<td>23</td>
<td>3</td>
<td>26</td>
<td>54</td>
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<td>18</td>
<td>1</td>
<td>19</td>
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<td>1970–79</td>
<td>41</td>
<td>3</td>
<td>44</td>
<td>109</td>
<td>4</td>
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<td>1990–99</td>
<td>37</td>
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<td>49</td>
<td>177</td>
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<td>24</td>
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<td>Existed January 1, 1930</td>
<td>Changes in 1930s or Founding Date</td>
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<tr>
<td>American Game Protective and Propagation Association</td>
<td>Absorbed by American Wildlife Institute 1931</td>
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<tr>
<td>American Game Protective Association</td>
<td>Name change to American Wildlife Institute 1936</td>
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<td>American Wild Fowlers</td>
<td>Absorbed by More Game Birds In America 1930</td>
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<td>Association of North Central States Game and Fish Commissioners</td>
<td>Defunct 1933</td>
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<tr>
<td>Boone and Crockett Club</td>
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<td>Delta Waterfowl Foundation</td>
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<td>Game Conservation Institute</td>
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<tr>
<td>International Association of Fish and Game Commissioners</td>
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<td>International Council for Bird Preservation, U.S.</td>
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<tr>
<td>Izaak Walton League of America</td>
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<tr>
<td>National Association of Game Commissioners and Wardens</td>
<td>No change</td>
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<tr>
<td>National Audubon Society</td>
<td>No change</td>
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<tr>
<td>National Committee on Wild Life Legislation</td>
<td>Defunct 1939</td>
<td></td>
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<tr>
<td>National Game Conference</td>
<td>Defunct 1931</td>
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<tr>
<td>National Rifle Association</td>
<td>No change</td>
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<tr>
<td>New York Association for the Protection of Game</td>
<td>Defunct 1936</td>
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<tr>
<td>New York Zoological Society</td>
<td>No change</td>
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<tr>
<td>Permanent Wild Life Protection Fund</td>
<td>Defunct 1936</td>
<td></td>
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<tr>
<td>Southwestern Game and Fish Conservation Association</td>
<td>Defunct 1930</td>
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<tr>
<td>Western Association of Fish and Game Commissioners</td>
<td>No change</td>
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<td>Founded after January 1, 1930</td>
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<tr>
<td>American Committee for International Wildlife Protection</td>
<td>Founded 1931</td>
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<tr>
<td>American Game Association</td>
<td>Founded 1931, defunct 1934</td>
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<tr>
<td>American Game Conference</td>
<td>Founded 1932, defunct 1935</td>
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<tr>
<td>American Pheasant Society</td>
<td>Founded 1936</td>
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<tr>
<td>American Wildlife Foundation</td>
<td>Founded 1935</td>
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<tr>
<td>Associated Committees For Wild Life Conservation</td>
<td>Founded 1930, defunct 1932</td>
<td></td>
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<tr>
<td>Association of Middle Atlantic Game and Fish Commissioners</td>
<td>Founded 1935</td>
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<tr>
<td>Association of Midwest Fish and Game Commissioners</td>
<td>Founded 1934</td>
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<tr>
<td>Brotherhood of the Jungle Cock</td>
<td>Founded 1939</td>
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<tr>
<td>Emergency Conservation Committee</td>
<td>Founded 1930</td>
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<tr>
<td>Federation of Western Outdoor Clubs</td>
<td>Founded 1932</td>
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<tr>
<td>International Wildlife Protection—American Committee</td>
<td>Founded 1936</td>
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<tr>
<td>More Game Birds for America</td>
<td>Founded 1930, name change to Ducks Unlimited 1937</td>
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<tr>
<td>National Wildlife Federation</td>
<td>Founded 1936</td>
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<tr>
<td>North American Game Breeders Association</td>
<td>Founded 1932</td>
<td></td>
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<tr>
<td>North American Gamebird Association</td>
<td>Founded 1931</td>
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<tr>
<td>Pacific Coast Migratory Bird Conservation Association</td>
<td>Founded 1931, defunct 1938</td>
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<tr>
<td>Tri-states’ Game and Fish Association</td>
<td>Founded 1938</td>
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<tr>
<td>United Game Breeders and Gamekeepers of America</td>
<td>Founded 1932, defunct 1933</td>
<td></td>
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<tr>
<td>Upper Mississippi Waterway Association</td>
<td>Founded 1932</td>
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<tr>
<td>Western Game Association</td>
<td>Founded 1930</td>
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<tr>
<td>Wildlife Society</td>
<td>Founded 1936</td>
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</tbody>
</table>
Figure 2. Percentage Change in Game Protection/Wildlife Management Organizations.

Figure 3. Magazine Articles on Game Protection or Wildlife Management 1900–2000. 
Source: Reader’s Guide to Periodic Literature.
shows counts of magazine articles under different subheads associated with either game protection or wildlife management in the Readers Guide to Periodic Literature. As this figure illustrates, game protection was the sole category for magazine articles in this area at the beginning of the century. However, beginning in the late 1920s, and then dramatically in the late 1930s, wildlife management magazine articles quickly replaced game protection as the dominant magazine article subject. This parallels the shift in books cataloged in the Library of Congress.

Conclusion and Discussion

In general, the theoretical approach previously discussed is supported by this case study. First, the shift from the discourse of game protection to wildlife management was preceded by the development of the scientific discipline of animal ecology, and its subsequent application in the development of the practice of wildlife management. The developers of this practice, most especially Aldo Leopold and J. N. Ding Darling, were both critical intellectuals and movement entrepreneurs. Thus we can see the important role critical communities play in the generation of new cultural perspectives that subsequently inform social movements.

These ideas were quickly adopted by the game protection movement organizations. It was clear that the previous approach was failing, and in the face of the extreme drought and the devastation of wild duck populations, this community was clearly searching for an alternative approach. Once the approach of wildlife management made its way into the movement community, there was a rapid transformation of movement organizations. In the space of less than a decade, this movement community was fundamentally transformed. A new set of movement organizations replaced the previous organizations.

Additionally, the movement was highly successful, as defined by Gamson (1975), in winning new legal advantages and increased inclusion in government institutions. Movement activists found a source of ready political support at the federal level in the form of the Roosevelt administration. The opportunities for resource mobilization were also excellent. The arms and ammunition manufacturers had a strong vested interest in maintaining and increasing wildlife resources for recreational use. Their financial sponsorship of the movement enabled movement entrepreneurs to form a number of strong advocacy organizations, and to create a national presence advocating initiatives based on the discursive perspective of wildlife management.

Thus from 1930 to 1940, animal management policy in the United States underwent a profound transformation. The approach of game
protection was replaced by practices based on the idea of wildlife management. During this period, a new science of wildlife management was instituted, the social movement community was transformed, and a new set of government legislative acts governing animal management policy was created. This fundamental shift redefined animal management policy, and institutionalized the field practices that exist today.

Our two hypotheses find support in this particular example. First, we had hypothesized that the creation of a new discursive frame would lead to the expansion of social movement organizations informed by that frame, and a decline in the movement organizations based on the superseded frame. As the data show, the 1930s were an incredible period of turbulence for this component of the environmental movement. We can expect that similar frame shifts in other social movements would lead to major shifts in their practice.

Our second hypothesis was that the development of new social movement organizations based on a new discursive frame can alter field practices. Here the success of the wildlife management movement provides an excellent example of the full impact a cultural change can have on movement outcomes. Of course, this was aided by favorable resource mobilization and political opportunity structures.

This essay highlights two methodological considerations for future movement studies. First, empirical measures of cultural dynamics can be generated that are both reliable and valid. There is no valid reason why empirical studies cannot include a consideration of cultural factors. Second, there is a need to fully integrate the relevant historical analysis and literature into movement studies. The sequencing of cultural production, movement growth, and its ultimate impact occurred in a recursive and dialectical manner over a ten-year period. Without a historical perspective, this process would not be visible to a simple statistical analysis. At the theoretical level, this study shows that cultural dynamics have a significant impact on movement organizational formation and field practices. In short, a full analysis of social movements requires a joint consideration of cultural and structural factors.

Finally, the limitations of this study define additional research needs. It is impossible to assess the relative contribution of cultural shifts to movement success based on one case study. While it is suggestive of the utility of this theoretical perspective, one case study cannot ever be definitive. A series of further empirical studies of similar movement shifts is needed to understand both the temporal sequencing of movement activities and the relative contribution of different factors to movement outcomes. For example, what role did scientists play in the definition of the issue of climate change, and how
was this translated by movement entrepreneurs into political demands to address this issue? By examining the cultural dynamics, we can move toward a better understanding of the development and change of social movements.

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