

Forage for Thought:
Mobilizing Codes in the
Movement for Grass-fed
Meat and Dairy
Products

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This study illuminates how new markets emerge and how social movements can effect cultural change through market creation. We suggest that social movements can fuel solutions to three challenges in creating new market segments: entrepreneurial production, the creation of collective producer identities, and the establishment of regular exchange between producers and consumers. We use qualitative data on the grassroots coalition movement that has spurred a market for grass-fed meat and dairy products in the United States since the early 1990s. Our analysis shows that the movement's participants mobilized broad cultural codes and that these codes motivated producers to enter and persist in a nascent market, shaped their choices about production and exchange technologies, enabled a collective identity, and formed the basis of the products' exchange value.●

The creation of new markets is an important engine of economic and cultural change. But new markets do not emerge naturally; rather, they often arise from collective projects that mobilize the necessary economic, cultural, and socio-political resources (Fligstein, 1996; Swedberg, 2005). A growing body of research suggests that social movements can play a central role in fueling such projects (Carroll and Swaminathan, 2000; Rao, Morrill, and Zald, 2000; Schneiberg, 2002; Lounsbury, Ventresca, and Hirsch, 2003). Movements often promote cultural change through institutions of the market in addition to institutions of the state (Melucci, 1996; Campbell, 2005). For example, the prohibition and the environmental movements have targeted consumers, retailers, and producers and have promoted the creation of alternative products. Unlike routine technological innovations, however, movement-driven projects often infuse new markets with moral value and contest institutionalized industry codes (Zelizer, 1983; Rao, Monin, and Durand, 2003; Rao and Giorgi, 2006; Fourcade-Gourinchas and Healy, 2007).

Organizational research has evoked the activity of movements primarily to explain the dynamics of populations of producers and to account for changes in the broad institutional frameworks of markets. Organization ecologists, for example, have studied the role of movements in the rise of new organizational forms, such as microbreweries (Carroll and Swaminathan, 2000), and the growth of new market niches, for example, in the healthcare and energy sectors (Ruef, 2000; Sine and Lee, 2009). Institutional theorists have focused on collective action that legitimated particular practices within an institutional field, such as recycling or power generation (Lounsbury, Ventresca, and Hirsch, 2003; Sine, Haveman, and Tolbert, 2005), and on how entrepreneurs acquire resources through skillful framing of an issue (Lounsbury and Glynn, 2001). But neither approach has comprehensively addressed the processes through which social movements create new markets.

At their core, markets are concrete exchange structures between producers and consumers (DiMaggio, 1994; Gartman, 2002; Fligstein and Dauter, 2007) and from this "micro-constructionist" perspective, market creation requires not only the entry of producers and the legitimation of practices

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through third parties but the organization of relationships within and between communities of producers and consumers (Porac et al., 1995; White, 2002). Structuring the practices of these immediate market participants poses three challenges that are central for understanding market emergence (e.g., Fine, 2004; Fligstein and Dauter, 2007). First, how are entrepreneurial producers themselves produced? What prompts them to enter an emerging market segment, and how do they make related production decisions? Second, how do individual producers establish a collective identity that forms the basis of internal community and external differentiation? And lastly, how are relationships between producers and consumers as well as rules of exchange established? Each “how” identifies a necessary process of market creation that movements can trigger and operate on.

Yet most existing studies of social movements have focused on collective producer dynamics in already formed markets (Fligstein, 1996; Carroll and Swaminathan, 2000; Hoffman, 2001; Lounsbury, Ventresca, and Hirsch, 2003) rather than on how movements affect all three general aspects of market creation at a very early stage. For example, little empirical research has examined why entrepreneurial producers begin their projects, what guides their technology and strategy development, and how alternative logics that support a market niche are articulated in the first place. Similarly, little is known about how new conceptions of value form and enable differentiation of prices and producers. The legitimization of production or consumption choices to an external audience provides a minimum standard of value, but both premium and mass products enjoy legitimacy. Thus the functioning of market processes such as exchange raises questions beyond legitimizing new practices to an external audience.

Two underexamined conditions for market emergence are initial variation in production—which new forms and products are innovated—and exchange—how producers connect with consumers (White, 2002; Fligstein and Dauter, 2007). Though a few studies have theorized about early-stage processes of variation on the production side (Carroll and Swaminathan, 2000), empirical analyses have tended to focus on selection processes among already existing alternatives. But movements are also likely to direct early participants’ search for innovative forms of production, because movements tend to establish their goals in opposition to those of incumbent industry logics. And even when there is latent demand for alternative products, producers still need to establish channels for exchange with consumers and a shared understanding of the value of goods (White, 2000; Zelizer, 2005; Fourcade-Gourinchas, 2007). Again, we know little about how movements help connect producers with consumers, especially when existing channels and valuation methods are part of the contested industry system.

To better understand a movement’s effects on market creation, we conducted a detailed case study of the market segment for grass-fed meat and dairy products that has formed in the United States over the past 15 years. We chose this setting as an extreme case for theory building, in which we could readily observe general processes of the movement’s

influence (Eisenhardt, 1989). Our analysis focused on the semiotic codes that organized the movement's emergent cultural system and on how the mobilization of these codes fueled solutions that allowed producers and consumers to overcome three general challenges for new markets: stimulating production, creating a collective producer identity, and establishing exchange with consumers.

SOCIAL MOVEMENTS AND THE CREATION OF MARKETS

The "micro-constructionist" perspective on market creation suggests that markets function when the participants in exchange, producers and consumers, establish a stable social organization with roles and niches (Porac et al., 1995; White, 2002; Fligstein and Dauter, 2007). This perspective is in contrast to standard micro-economic perspectives that assume that markets are induced by demand and bounded by the substitutability of products. Though not necessarily incompatible with a micro-constructionist view, the micro-economic model says little about how consumers form demand, signal it to potential producers, and identify the products seen as substitutes. The micro-constructionist perspective is also related to macro-constructionist perspectives that examine institutional conditions of market functioning, such as property rights, industry regimes, and regulations, but that pay less attention to the organization of market activity and relationships.

In a recent review of sociological perspectives on markets, Fligstein and Dauter (2007) acknowledged that scholars draw on diverse research traditions to account for the organization of market activity, emphasizing alternatively interaction networks, field positions, and symbolic boundaries, or cultural-technical systems (Knorr-Cetina and Bruegger, 2002; White, 2002; Bourdieu, 2005; Fourcade-Gourinchas, 2007). Nevertheless, consensus is high on the basic challenges to market creation: "the first thing the sociology of markets suggests is that market actors will develop social structures to mediate the problems they encounter in exchange, competition and production" (Fligstein and Dauter, 2007: 9). These three elements correspond to the organization of relationships between producers and consumers (exchange), relationships among producers (competition), and relationships within production organizations (production).

Social movements provide one way to fuel projects that seek to organize or reorganize these relationships and thereby create a new market. We conceive of social movements as loosely organized coalitions with a goal of contesting prominent social and cultural practices through sustained campaigns. There is in fact limited consensus in the literature on collective behavior about what constitutes a social movement. Tarrow (1998: 2), for example, emphasized the challenge to elites and defined social movements as "sequences of contentious politics that are based on underlying social networks and resonant collective action frames, and which develop the capacity to maintain sustained challenges against powerful opponents." Tilly (2004) treated social movements more narrowly as a historically evolved form of campaign that contests authority and uses protest repertoires that are most

closely associated with activism in the political domain. Davis et al. (2005) took a more agnostic view and identified social movement research as a body of research anchored by archetypical phenomena and processes, which more readily generalize to the economic realm—but see Clemens' (2005) critique of this expansive version. Lastly, Alexander (2006: 213–233) adopted a more functionalist approach, seeing movements primarily as translating special interests into societal concerns. Although we cannot resolve these at times conflicting definitions in this paper, ours incorporates the most common elements. It is closest to McAdam, Tarrow, and Tilly's (2001) but allows more explicitly for elite participation in movement coalitions, such as the coalition found in the grass-fed products movement.

Key characteristics of movements are their diffuse boundaries and limited formal organization, the articulation of a conflict with prominent practices in the name of a greater good, and the sustained nature of these efforts (McAdam, Tarrow, and Tilly, 2001). This definition allows for the participation of insurgent and elite actors, reformist, revolutionary, and reactionary strategies, action in political, economic, and social domains, and movements' goals that are in the social, political, and cultural realm. It therefore excludes such collective behaviors as isolated episodic conflict (e.g., spontaneous walk-outs), mobilization for or against trivial practices (e.g., fashion fads), and interest politics pursued exclusively by formal organizations (e.g., corporate lobbying). In capitalist societies, movements' targets can include institutionalized market arrangements. For example, early recycling and alternative energy activists sought to promote ideas that were in opposition to dominant practices in waste management and power generation, via a reformist strategy of market creation (Lounsbury, Ventresca, and Hirsch, 2003; Sine and Lee, 2009).

The scope of a social movement's impact on markets may vary. Some movements are radical and broad in scope, aiming to take an entire set of social practices into or out of a market-based regime. Examples are the prohibition movement (alcohol) and various movements for nationalizing critical industries, on the one hand, and the pro-choice movement (abortion) and neoliberal privatization movements, on the other. Other movements take a more reformist route and are narrower in scope. They seek to alter the structure of a larger sector by adding or eliminating market segments. Examples are the anti-nuclear and alternative energy movements. Our study concerns this second type of process, in which the movement's immediate goal is to add a market segment within a sector that is already subject to market processes. Such a movement's influence lies in structuring the relationships of new entrants and reconfiguring those of incumbents so that relationships among producers and consumers create a new bounded arena of competitive rivalry and exchange. The creation of such niche markets may well be a first step in transforming an entire sector—as witnessed by the diffusion of “green” building practices into the mainstream construction sector or the growth of the automobile from a luxury item to a mass product—but the movements'

influence at later stages is likely to have a different emphasis and is beyond the scope of this study. Lounsbury's (Lounsbury, Ventresca, and Hirsch, 2003; Lounsbury, 2005) studies of the recycling movement, for example, found significant changes in the movement's leadership, targets, and logics in the course of institutionalization. By contrast, this study concerns the challenges of the necessary initial step in a reformist approach, creating a market segment. For simplicity's sake, and in line with prior research that uses the term market to refer to closely confined rivalry groups (White, 1981; Porac et al., 1995), we use the terms "market creation" and "niche creation" interchangeably in our description of the market for grass-fed products.

The Movement for Grass-fed Products

Only 15 years ago, the term "grass-fed beef" was known only to cattle ranchers and livestock commodity analysts. It was a technical term used primarily to describe meat of inferior quality and lower price that had not followed the standard process of production in the United States. Under the conventional system, cattle are fattened or "finished" in dedicated feedlots on a diet of corn. The term "grass-fed" referred to the absence of this production step. Close to 100 percent of domestic beef production was "corn-fed" or "grain-fed," and there were barely a few dozen producers that relied exclusively on grass (Williams, 2006b). Even in 2000, the total number of exclusively grass-fed cattle slaughtered in the U.S. was a miniscule total of 5,000 (Williams, 2006a). Within a very short period of time, this picture has changed dramatically. In 2006, an estimated 45,000 to 60,000 head of grass-fed cattle were harvested by over 2000 producers (Williams, 2006b). Grass-fed meat and dairy products are now served in high-end restaurants and sold at a premium by ranchers, health food stores, and large specialist retailers such as Whole Foods. Articles referencing the "the grass-fed industry" have appeared in prime news outlets, such as the *New York Times*, the *Wall Street Journal*, *Business Week*, and *Time Magazine*. The Union of Concerned Scientists issued a report in support of grass-fed products (Clancy, 2006), and the U.S. Department of Agriculture (USDA) is considering standards for a government-backed "grass-fed" label.

Grass-fed meat and dairy producers still only make up about 0.2 percent of the U.S. meat and dairy sector (USDA Economic Research Service, 2006). What is significant, however, is that there is now a recognized market segment for grass-fed products when, before, there was none. And products described as "grass-fed" now sell at a premium, when they were sold at a discount before. In short, the last 10 years have seen the emergence of a new market niche, a recognized and distinctive arena of production, exchange, and consumption. The rapid emergence of this new market in the face of the dominant industry system is largely a result of the activities of a growing grassroots coalition movement driven by concerns about sustainable agriculture, rural community development, health, and alternative consumption.

The movement for purely grass-fed meat and dairy production arose in opposition to a system of industrial agriculture

that had become dominant since World War II. This system was fueled by scientific discoveries that changed the basic technology of animal husbandry, new breeding techniques, and the use of growth hormones and antibiotics. In particular, the “green revolution” of synthetic fertilizers and pesticides increased the productivity of grain production and, together with government subsidies, made corn and other grains a cheap and abundant supply of animal feed. Grain-fed animals fatten more quickly, and their meat contains more intramuscular fat, which produces the tender texture and “marbling” that consumers like. As a result, and aided by governmental subsidies, specialized “confined animal feeding operations” (CAFOs, or simply feedlots) and large-scale “factory farms” replaced smaller diversified family farms as the dominant organizational form in agriculture. The new industry structure and technologies lowered cost and standardized quality, so that meat and dairy products turned into affordable mass-market commodities distributed via a highly concentrated food-processing industry. This new industrial logic of agriculture was further institutionalized by corresponding USDA regulations and curricula at agricultural colleges and extension services.

Opposition to this logic of agricultural production was insignificant among farmers, consumers, and the public until at least the late 1960s, when environmental and anti-corporate issues became more central to broader countercultural movements (Belasco, 2007). It became stronger in the context of food scandals and health concerns that emerged in the 1980s and 1990s (Elsbach, 1994). In the area of food and agriculture, urban movements for social change converged with an older generation of the more traditionalist organic movement, such as followers of J. I. Rodale, the activist publisher of *Organic Farming and Gardening*. The “new organic movement” that emerged in the late 1960s was initially critical of all aspects of the existing system: production, distribution, and consumption. Organic activists sought to develop alternatives in each area, such as ecological composting techniques and biological soil management, farmers’ markets and food co-ops, as well recipes that used less commoditized flavors (Hess, 2004; Ingram and Ingram, 2005). As the organic movement became more part of the mainstream and its concerns became less encompassing (Fromartz, 2007), more specialized spin-off and allied grassroots movements emerged, such as those concerned with sustainable land management, the consumption of local food, fair trade, and “slow food.” The slow food movement, for example, arose in Italy in opposition to the spread of global fast-food chains and aims to preserve regional cultural traditions in food production and consumption.

The grass-fed-products movement can be seen as one recent spin-off movement whose initial impetus lies in agriculture rather than food consumption. Early activists in the beginning of the 1990s, such as Alan Nation, the editor of the emerging movement’s central outlet, the *Stockman Grass Farmer*, or Joel Salatin, a pioneering farmer who has published several books, were concerned foremost with the viability of family farms and rural communities. They drew inspiration from ear-

lier organic and agricultural ideas, such as André Voisin's (1959) work on grass productivity in the 1950s, grazing systems used in New Zealand, and farming technologies deemed environmentally and economically sustainable.

As the movement gathered momentum in the late 1990s, new actors joined the movement, many of them not involved in production and without a direct stake in market processes. For example, Jo Robinson, a freelance journalist researching the nutritional benefits of fatty acids, compiled studies showing that meat from grass-fed animals had a variety of health benefits over corn-fed products. She was invited by Allan Nation to address a ranchers' conference in 1999, which, in concert with her subsequent book, *Pasture Perfect* (Robinson, 2004), and Web site, eatwild.com, started in 2001, connected the concerns of farmers with those of consumer health advocates. Allan Savory, a consultant on sustainable range management originally from Zimbabwe, supplied expertise about soil, forage, and animal management, while others added solutions about animal breeding and genetics and direct marketing and distribution. On the consumer side, the expansion of the movement's framings into areas such as consumer health, prompted some food writers to join. Marian Burros, a food writer at the *New York Times*, began educating high-end consumers and praising the virtues of grass-fed products in 2002. Michael Pollan, a contributor to the *New York Times*, wrote an influential critique of the feedlot system in 2002 and a best-selling book, *The Omnivore's Dilemma* (Pollan, 2006), in which he connected conventional and grass-fed production to larger moral issues of the industrial food system.

The movement's coalition thus expanded and gained momentum through the co-evolution of action frames and mobilization alliances that brought together previously unconnected stakeholders, such as animal breeding experts, environmental preservationists, and high-end food critics. In the process, the movement's identity, concerns, and solutions were elaborated and became more expansive. Our analysis sought to unearth the underlying cultural factors that united this coalition and stimulated the creation of a nascent market for grass-fed products.

METHOD

Because we were interested in the micro-processes that link movements and markets, we collected multiple forms of qualitative data on the understandings, actions, and discourse of the rather dispersed set of social actors involved in the coalition that made up the movement. To understand the context and isolate unique features of the focal movement and market, we also collected data about adjacent segments in the fields of agriculture and food. Our sources included interviews, observation, movement publications, Web sites, online discussion forums, news articles, and regulatory filings. This approach allowed us to combine information about the experiences and reasoning of participants with contextual discursive and historical data.

Data

The core of these data is 41 semi-structured interviews with activists, ranchers, farmers, consumers, and journalists, which we conducted between October 2006 and March 2007. These interviews started with a biographical format, asking individuals to describe in detail their journey toward grass-fed production, illustrating both positive and negative experiences, and to report on personal and technical challenges and solutions. Most interviews lasted about one hour, with several running as long as two hours. We identified interviewees through a combination of random seeding and subsequent snowball sampling. We initially compiled a sampling frame of 280 producers in the U.S.A. using widely used directories provided by eatwild.com and the American Grass-fed Association (AGA). We contacted a random 50 producers with requests for interviews. We then asked the responding 24 interviewees to recommend other producers, key figures within the movement, consultants, distributors, consumers, journalists, and chefs and continued this process until information from these interviews reached a saturation point. Producers ranged in experience from novices, with and without prior ranching experience, who were about to enter the emergent market segment to early pioneers of grass-fed production with over 15 years of experience. Their geographic locations covered all regions of the United States. They raised cattle, dairy cows, bison, goats, sheep, chickens, and pigs. Cattle producers, the largest subset, ranged in size from 10 to 700 head of cattle slaughtered per year.

We supplemented our interview data with a comprehensive set of archival data. We accessed current and archived Web sites maintained by grass-fed producers and consumers' groups for advertising and informational purposes and read several books on grass-fed production recommended by our interviewees. We also examined all issues of the movement's central periodical, the *Stockman Grass Farmer*, for the years 1995 to 2006. In addition, we obtained 23 hours of audio recordings of presentations and panel discussions at conferences organized by *Acre's USA*, a major publication on alternative agriculture, between 1975 and 2006. Also, we gathered from the Factiva database 516 articles in 20 U.S. and Canadian national newspapers and newswires between 1980 and 2006 that included terms related to the movement. Finally, we accessed the over 20,000 written comments submitted to the USDA in response to its 2006 proposal for a grass-fed food label. These archival data allowed us to assess the stability of ideas and activities over time and in communications to different audiences.

We also collected data on adjacent markets for organic and local food to better understand the movement's uniqueness within this context. We conducted in-depth interviews with 20 small-scale farmers who were growing organic and conventionally grown products near a large metropolitan area in the Midwest. We also attended three conferences on alternative agriculture and food with producers and consumers committed to grass-fed, organic, and local products. Lastly, we repeatedly observed the activities at four farmers' markets in our area and at three nearby farms. In the course of these

events, we compiled field notes and informally talked with and listened to numerous activists, including leaders of advocacy groups for sustainable agriculture, those representing nutritional causes and slow food ideas, chefs, a regional buyer for Whole Foods, farmers' market coordinators, and managers at natural and conventional supermarkets.

Analysis

Our analytic approach is best described as analytic abduction (Peirce, 1955), an iteration between empirical data and preexisting theoretical constructs (Snow, Morrill, and Anderson, 2003). We performed two primary analyses. The first identified the cultural codes that organize the movement's collective meaning system. The second identified how these meaning structures were enlisted by those involved in creating the emerging market and shaped their practices.

For the first primary analysis, we borrowed techniques from semiotics to identify structures that organize the meaning system used by the movement's participants (Manning, 1987; Feldman, 1995). Specifically, we identified the movement's central semiotic or cultural codes. Cultural codes take the form of binary oppositions that contain a value dimension of moral good and bad (Barthes, 1967; Levi-Strauss, 1974). The two poles of the code are usually linked to broad cultural or institutional domains, making one desirable and the other undesirable. The role of semiotic codes in framing and mobilization processes has been emphasized by recent cultural approaches to social movements (Johnston and Klandermans, 1995; Swidler, 1995, 2001: 179; Jasper, 1997; Benford and Snow, 2000; Johnston and Noakes, 2005). Semiotic codes are comparatively broad, pervasive, and sticky dimensions of culture; they are rules by which members of a group consistently and coherently generate meaning and frame information (Barley, 1983). Codes are thus distinct from but also a source of more tactical frames that fulfill diagnostic, prognostic, and motivational functions in actual mobilization (Benford and Snow, 2000). Codes exist as a plurality in the public sphere independent of a specific movement. They can be enlisted and elaborated by activists to create "cultural resonance" between a movement's specific frames and broader value orientations in society (Snow and Benford, 1988). This resonance serves to recruit and mobilize a diverse membership and to legitimate a movement's goals externally.

Although we used other procedures, such as semiotic clustering, we found a technique called semiotic chain analysis (Greimas, 1983) particularly suitable for identifying cultural codes from our data. The process and logic of this method has been described in detail by Barley (1983). Put simply, a semiotic chain is a form of disciplined interpretation that identifies metaphorical and metonymic relationships to map denotative and connotative aspects of meaning in a single system of associations and oppositions. Denotative relationships refer to associations between specific practices and elements of a cultural code. Connotative relationships connect these elements to broader cultural oppositions. We sought to increase the reliability of this interpretive process by having all three researchers first construct semiotic chains individual-

ly. We then compared the resulting maps and reconciled differences in two iterations of discussion and returning to the data.

For the second analysis, we analyzed interviews, field notes, secondary documents, and Web content to identify empirically grounded themes related to three theory-driven aspects of market emergence: creating entrepreneurial producers, creating collective identity, and creating market exchange. We initially grouped recurrent and salient statements, stories, and events into these categories. Each researcher then individually identified clusters of processes within these groupings, and we subsequently compared our respective clusters. We found significant convergence in our categories and reconciled differences in one iteration. Finally, we identified the cultural code(s) evoked by each statement or story to link the process categories with the meaning structures identified in the first analysis.

FROM MOVEMENT TO MARKET

The Organization of the Movement's Meaning System through Binary Cultural Codes

To make sense of their environment and their own actions, the movement's participants commonly enlisted three cultural codes with oppositional structures: authenticity vs. manipulation, sustainability vs. exploitation, and natural vs. artificial. Each pole of the opposition in a cultural code was linked to a different institutional domain: the insurgent domain of grass-fed production, marked positively as an affirmation of moral values, and the domain of the incumbent industry system, marked negatively as a violation of moral values. Because domains and value markers were aligned with one pole, these codes allowed participants to cognitively and emotionally "de-code" a large array of production, consumption, and exchange practices.

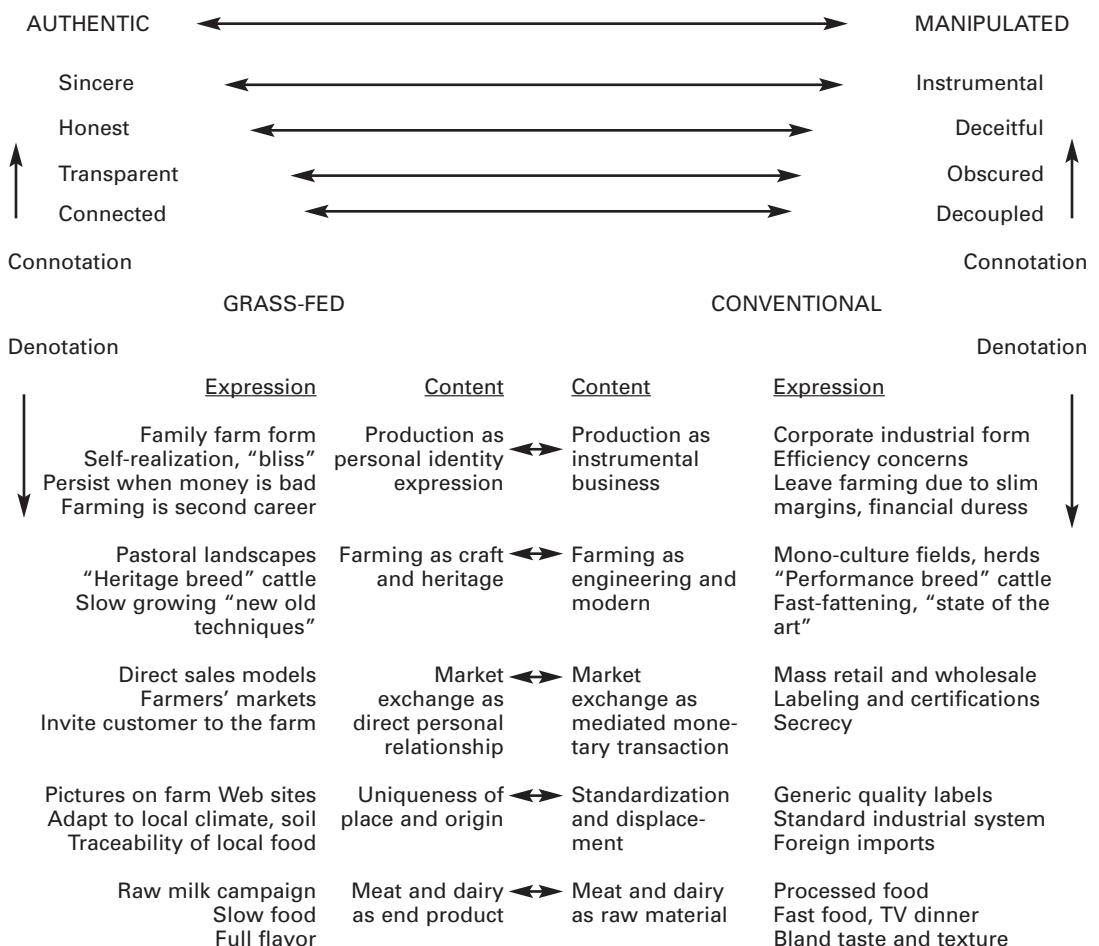
Our semiotic analysis identified the common cultural codes within the movement, codes that participants saw as meaningful and coherent. Obviously, external observers and opponents of the movement could dispute these and argue against specific connections. Many participants in conventional industrial agriculture used different codes or associated different practices with the same codes. For example, evidence for the nutritional benefits of grass-fed beef is not scientifically conclusive, as even some of our interviewees admitted, but even suggestive evidence makes sense within a cultural code in which naturalness is seen as preferable and good nutrition is seen as coming from inclusion and purity. It may make less sense to opponents who suspect good nutrition to require human intervention and the elimination of damaging substances. Such differences in enlisting and applying cultural codes are expected, because the movement could only elaborate its alternative to the incumbent logic of the field by developing a somehow self-contained social and cultural system.

Figures 1 to 3 present each cultural code and its components in the form of a semiotic chain. The upper part of each figure shows the connotative dimension of the code, which con-

nects the grass-fed and conventional domains to broad cultural oppositions. The lower part of each figure shows the denotative dimension of the code, which shows how the cultural opposition was linked with the organization of production, exchange, and consumption in the new market for grass-fed meat and dairy products and the incumbent conventional industry system.

Authentic vs. manipulated. The code of authenticity aligned production, distribution, and consumption of grass-fed products with the notion of authenticity, or being sincere, transparent, and connected to self, nature, and others, as shown in figure 1. A code of authenticity, widely valued in modern Western societies, is often enlisted by grassroots movements that operate outside the institutional elites of late modernity (e.g., Peterson, 1997; Fine, 2003). In contrast, the incumbent elites are cast as disconnected from self, others, and nature and hence driven by instrumental rather than authentic motives. The code of authenticity found expression in valuing such practices as the family farm, personal interactions between producer and consumer, and the enjoyment of local food. It implied the condemnation of practices such as industrial farming, mass retail food, and highly processed food.

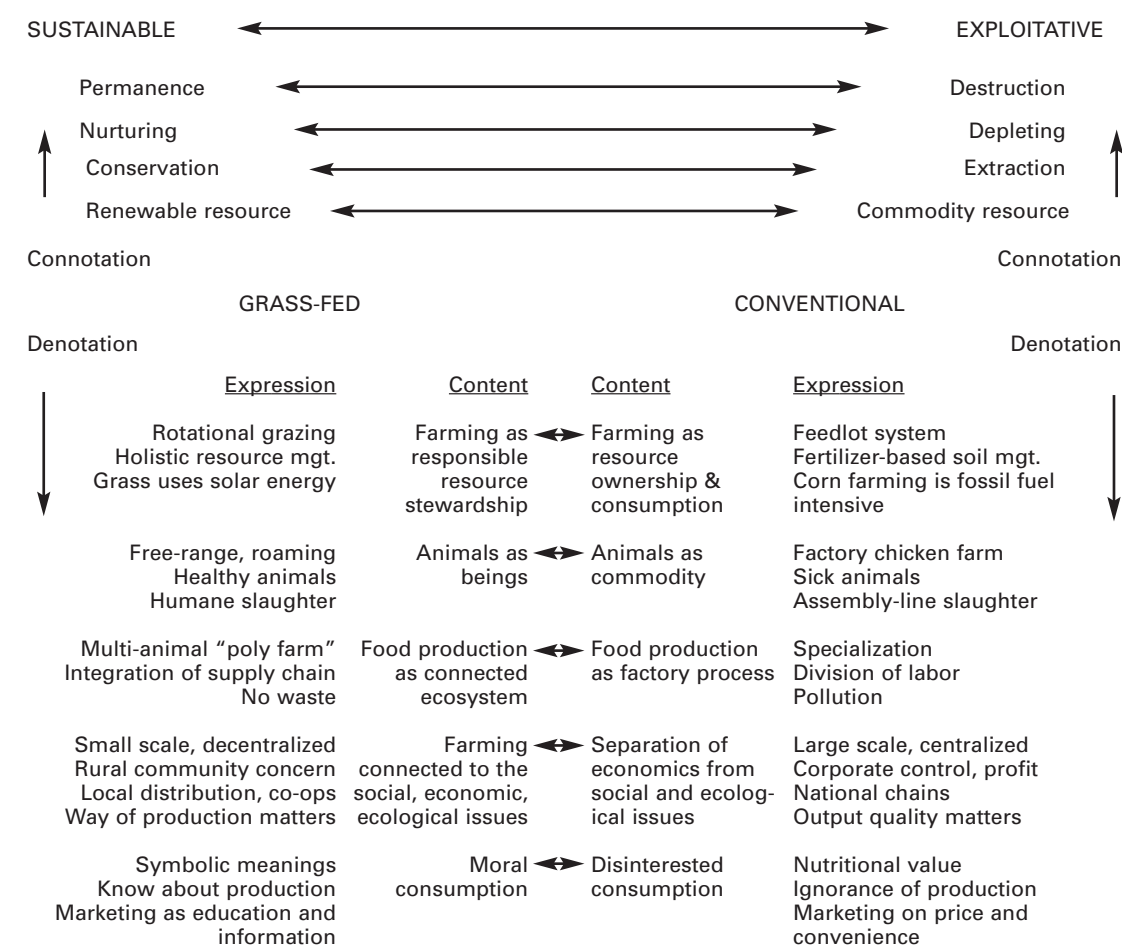
Figure 1. Semiotic code of authenticity.



Sustainable vs. exploitative. The code of sustainability aligns the goals and practices of the movement with the idea of sustainability, a holistically closed economic, social, and ecological system that is stable and self-sufficient for the future. As shown in figure 2, sustainability evokes connotations of permanence, nurturing, conservation, and renewable resources. The code of sustainability is often found in other movements opposed to industrial capitalism, such as “green” energy or international and rural development (e.g., Gladwin, Kennelly, and Krause, 1995; Hart, 1995). In contrast, the incumbent system is portrayed as inherently unstable because it depletes resources and leads to self-destruction. In the grass-fed-products movement, sustainability was expressed in commitment to such practices as free-range and rotational grazing systems for cattle, distribution through co-ops and local markets, and consumers buying products based on how they were produced. The opposition, exploitative practices, included feedlots, the use of chemical fertilizers and antibiotics, and convenience-driven consumption of food.

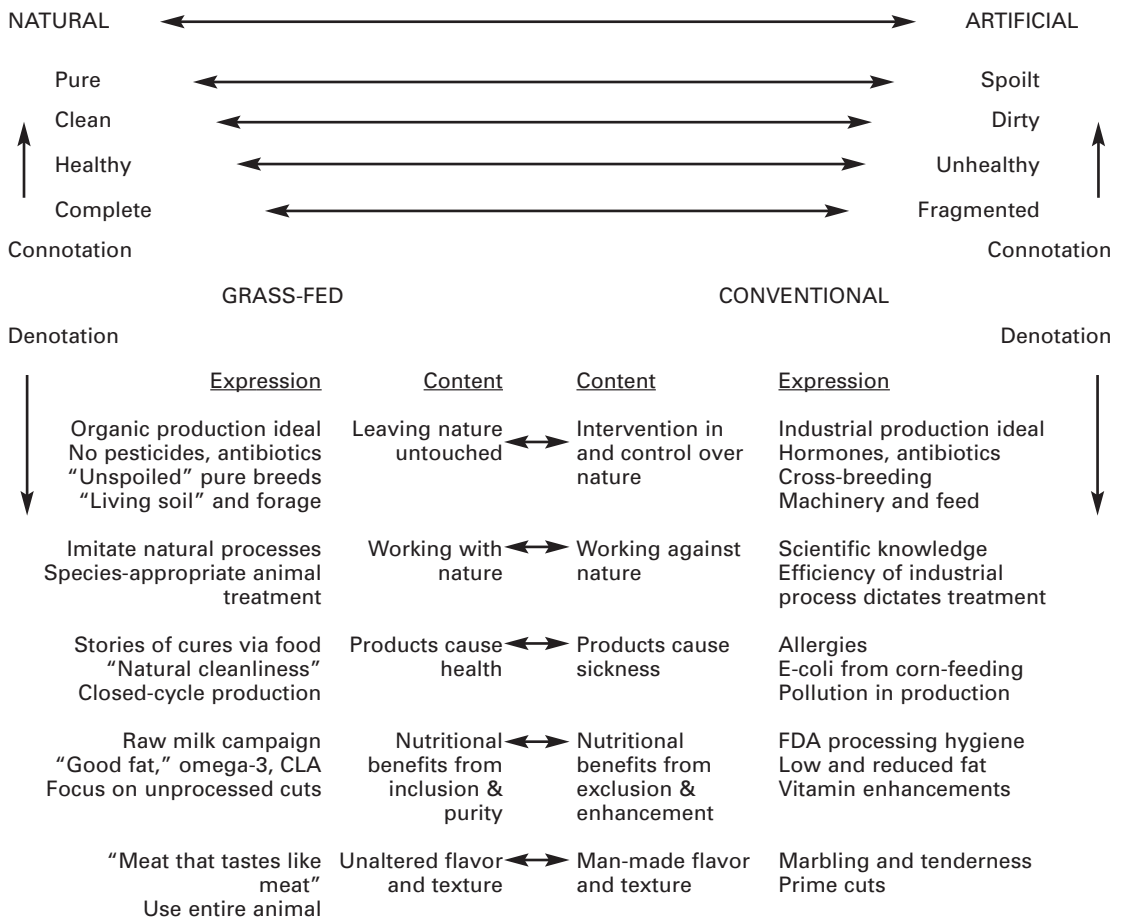
Natural vs. artificial. The code of naturalness aligns grass-fed products with a romanticist notion of nature as inherently pure, complete, clean, and healthy, as shown in figure 3. A

Figure 2. Semiotic code of sustainability.



Mobilizing Codes

Figure 3. Semiotic code of naturalness.



central code of most environmental and conservation movements (e.g., Douglas and Wildavsky, 1982; Hoffman, 2001), its opposition is a man-made system that suffers from pollution as a result of incomplete attempts by human artifice to understand and manage nature. The code found expression in valuing practices such as organic farming principles, natural animal feed in the form of forage, studying and imitating natural processes in production, and in praising unaltered flavors in meat and dairy products. Its opposition, artificialness, led to a devaluing of practices such as engineering and efficiency-oriented forms of agricultural knowledge, the use of synthetic animal feed, and artificial nutritional enhancements in food products.

To realize the concerns encoded in the movement's meaning system, namely, creating alternative, more natural, sustainable, and authentic forms of agriculture and food, grass-fed activists followed a reformist approach and sought to create a market for products that were aligned with these values. In doing so, they faced the general challenges of market creation discussed above: recruiting entrepreneurial producers to create and shape an alternative supply, creating a distinctive market identity and community of producers, and connecting with consumers in actual exchange. To meet these challenges, members of the movement's coalition interpreted

and applied its cultural codes to structuring the practices involved in the new market for grass-fed products.

The analytic shift from the structure of meaning to its mobilization in concrete practices revealed two sources of variance within the movement. First, as in most movements, leading activists and pioneers played a special role in constructing and elaborating cultural codes. They represented the ideology of the movement in a more coherent and pure form than more pragmatic participants at the periphery. Our analysis focuses on this pure ideology, which supplies the cultural resources that even more pragmatic coalition members drew upon. Second, participants selectively applied particular codes and denotative elements to specific problems and audiences. For example, farmers would communicate with each other in great detail about appropriate grazing technologies but emphasize benefits to consumers and the community when trying to recruit customers. As the organization of a new market involves relationships across all groups, we focus on the collective repertoire of action frames that define the overall coalition.

Creating Entrepreneurial Producers: Cultural Codes and Expressive Production

The establishment of a new market niche requires entrepreneurial producers who are willing and able to create an alternative product supply. The first challenge is therefore one of motivation and commitment. Entrants into a market that has yet to emerge must be willing to undertake an uncertain venture and persist in the face of setbacks. The second challenge is one of innovation. Pioneering producers need to envision and develop designs and production processes that deviate from existing practices and logics in their industry. Both challenges are heightened in nascent markets that break the codes of an institutionalized incumbent system (Polos, Hannan, and Carroll, 2002; Rao and Giorgi, 2006).

The entry and production choices of grass-fed ranchers did not arise spontaneously or at random. The meaning system elaborated by members of the movement supplied critical cultural resources to solve both motivational and innovation challenges. The cultural codes of authenticity, sustainability, and naturalness prompted more specific action framings, which served the motivational, diagnostic, and prognostic functions necessary to mobilize action (Benford and Snow, 2000). Motivational frames contributed to potential entrants' choosing to produce grass-fed meat over other alternatives and created a strong emotional commitment to this enterprise. Diagnostic and prognostic frames directed innovation by leading producers to diagnose specific problems in the conventional system, to theorize their causes, and to construct solutions compatible with the positive pole of cultural codes.

Motivating entry and commitment to production. Motivational models of entrepreneurship often focus on instrumental motivations that drive entrepreneurs, such as expectations about financial gains (Naffziger, Hornsby, and Kuratko, 1994; Aldrich and Martinez, 2001). We found that the financial motivation certainly mattered, because producers had to make a

living from farming. Nevertheless, the decision to enter and persist in this particular market benefited from the availability of a broader vocabulary of motives provided by the movement's cultural codes (Mills, 1940). Pioneering grass-fed producers chose and persisted with grass-based agriculture because they obtained emotional energy from connecting their work to a sense of self and moral values represented in the movement's codes. Later and more pragmatic entrants still benefited from the availability of this vocabulary in discourse and could justify the risky decision to enter a nascent market and their commitment to stay in it with a repertoire of moral justifications. The movement's cultural codes motivated production at two stages: they stimulated initial entry through resonance with potential producers' values, and they reduced early exit by supplying additional justifications that increased the commitment of producers to this market.

Early producers faced many of the challenges typical of entrepreneurs in new markets that run counter to institutionalized production regimes. Several pioneering grass farmers described their quest to initially explain to customers what they were doing differently and to convince restaurants and stores to sell their meat. "Are there a lot of people who disagree with me? You bet there are . . .," one rancher quipped. Even once production technologies became better understood and the recognition of the category increased, the financial attractiveness of shifting to grass-fed operations remained questionable. Farming is a low-margin industry, and grass-fed production required initial investments and a transition period of several years. In the eyes of producers it was not clear if potential future returns would justify the initial investment. The prospect of financial viability was a necessary but not sufficient condition for market entry. In response to the question of what motivates him to persist in spite of the various barriers, one interviewee pointedly cried, "I must be an idiot!" Another suggested that "there are probably easier ways to make a living in ranching these days, I just don't like them." And yet some producers who had long worked within the well-understood conventional feedlot system switched. Others entered agriculture and grass-fed production as a second career, leaving behind well-paid employment as doctors, car dealers, or information technology specialists. To become producers, these individuals gave up secure jobs, moved across the country, and had to learn new skills in an industry notorious for making losses. Several factors contributed to their making the change.

We found that an experience of deep emotional connection to their work increased the motivation of most producers. They saw their production approach as a commercial and a moral enterprise congruent with personal values and identities. As a result, their commitment to grass-fed production became an expression of a moral identity, beyond economic concerns. As one veteran grass farmer described, "[There is a] massive hunger for something that is a little bit more real and a little bit more right that is not completely connected just to agriculture and food, I think there is a spiritual element or a 'who am I?' element that all of us are experiencing and it is probably always there, but it is coalescing around grazing."

Another interviewee who was just starting ranching as a second career explained how his initial impulse had been simply to “go back to the land,” but after looking at the conventional system, he realized that its practices were not aligned with his ideal of ranching. After looking into several alternatives, including certified organic production and agro-tourism, he decided on trying to raise grass-fed bison, because “[grass-fed production] is closest to what I wanted in the first place, it’s the complete package.”

The cultural codes of authenticity, sustainability, and naturalness provided a vocabulary for the subjective experience of moral virtue and value congruity that dedicated grass-fed entrepreneurs sought. These producers saw the virtue of their production approach in contrast with conventional production and drew from it emotional energy and passion for their work. It is this additional motivational force that enabled them to overcome inertial forces to stay in their familiar prior work and increased their persistence in the face of setbacks.

The binary and evaluative construction of cultural codes by prominent producers reaffirmed their morality of “doing the right thing” by contrasting it with conventional agriculture. One rancher evoked the codes of sustainability and naturalness to draw this contrast: “Raising cows on pasture is a beautiful thing. You’ve got deep-rooted, soil-stabilizing, perennial grass-legume mix, you’ve got the cows doing the fertilization, and you’ve got milk and meat that’s lean and omega-3 rich.” This was in opposition to the conventional system, which “seemed against nature to me. It didn’t seem like the right thing to do for the animals. I didn’t like the chemical fertilizers and pesticides on our land.” Another lamented, “Have you been to a feedlot? Those animals require fresh air, and they stand there all day long taking in nothing but toxic and fecal dust and they are so sick . . . e.coli, that is feedlot beef,” while one rancher simply said, “I am working for God.”

Many interviewees described a feeling of authenticity, of being true to or “in touch” with oneself and one’s place in the world. This feeling of authenticity energized entrepreneurial action by creating the experience of a unified, personal identity across private and occupational domains (Rokeach, 1973; Schwartz, 1992; Hitlin, 2003). One producer who switched from a conventional operation recalled, “My wife and I always felt like we should have done grass-fed.” Another, second-career farmer noted, “There is nothing more fulfilling than watching the grass grow, or clearing a field, there is a gut connection, you really feel as if you’ve accomplished something . . . and when you work with the animals, there is a connection I can’t describe other than I enjoy it.” This inner subjective experience of authenticity with personal values draws on a broader idea of authenticity in American society (Taylor, 1991; Alexander, 2004). This idea should not be confused with the narrower meaning given by the movement to specific agricultural and market practices that signal genuineness to the outside world. Acting in congruence with an internalized value of sustainability creates the same subjective feeling of authenticity as acting in congruence with the code of authentic production.

Guiding variation and innovation. Solving the problem of motivation and commitment is one step in creating producers. The other challenge is innovation. If there is a desire and commitment to do something new and different, the question is, what that something new will entail. Entrepreneurs who not only start a new venture but work outside institutionalized practices of their field need to break from existing field frames (Lounsbury, Ventresca, and Hirsch, 2003), logics (Becker, 1995; Thornton, 2004), and codes (Rao and Giorgi, 2006) and conceive of new technologies and production processes. Grass-fed producers had to identify the problems in the conventional system and construct solutions and then choose or develop alternative technologies of production, forms of authority, goals, and market approaches. In ecological models of innovation, this issue is one of variation. The variation we observed was not blind or random, however, but was guided by the movement's cultural codes, which prompted particular diagnostic frames to identify specific problems and particular prognostic frames that guided the search for appropriate solutions (Snow and Benford, 1988; Jasper, 1997). Faced with a myriad of technological and business alternatives of unproven effectiveness, the movement's codes provided heuristics for gauging if something would work and be in line with the overall project.

In the creation of a market for grass-fed beef, early producers faced many of the challenges that come with a strong incumbent system. For example, technical knowledge about grass-fed production was scant. Methods associated with pasture-based farming were largely forgotten in the post-war period, when the industrial logic thoroughly replaced older grazing systems. For example, when interest in grass-fed meat production surfaced in the 1990s, agricultural schools' curricula focused exclusively on conventional, industrial agricultural methods. As one rancher recalls,

I went to the University of Georgia, graduated in Animal Science in 1976. It was previously called Animal Husbandry, and it was about raising cattle in accordance with nature. But by the time I got there, it had become science. It also changed in the curriculum—I learned to use hormone implants, and about confinement feeding, how to keep them from bloating and dying, and how to make them live in confinement. It was not the cattle business that I learned from my pa and my grandpa.

In addition, multiple actors in the meat and dairy industry had aligned their practices to reinforce the dominant farming and ranching practices, including veterinary doctors and animal breeders, fertilizer and feed companies, processors and distributors, and the USDA. For example, meat processing and distribution became concentrated in the vicinity of feedlots, and animal breeds best suited genetically for the pasture became rare as animals were bred to perform well on a corn-based diet. As a result, several of the earliest activists only began to conceive of a viable alternative to the conventional system when they took trips to countries where grazing-based systems were more common, like New Zealand and Argentina. Despite the lack of knowledge, entrepreneurial producers developed knowledge and technologies to make grass-fed production viable. They adopted rotational grazing

systems, new fencing technology, and methods for growing forage suitable to local climate conditions. They identified breeds of cattle best suited to a grass diet, selected appropriate distribution channels, and developed numerous other business practices. Our analysis shows why they chose these technologies and practices over alternatives.

We found that such practices frequently developed in accordance with the movement's central cultural codes of authenticity, sustainability, and naturalness. These codes served both diagnostic and prognostic functions, in that they drew attention to particular flaws of the incumbent system and provided heuristics for identifying alternatives. For example, one rancher evoked the code of naturalness as a broad heuristic for identifying and evaluating a host of farming aspects across several domains: "The operations that operated more in accordance with nature, looked at optimums, rather than maximums, and did not use a lot of chemicals and feed supplements, or pharmaceuticals, relied on selecting animals that were adapted to the environment, rather than forced it, relied on grazing rather than supplemental feeds . . . were more successful." One producer summed up his overall stance as "nature—work with it instead of against it." These are not simple catch phrases. Another grass farmer, highly respected as an innovator and role model in the movement, described how he invented a way to better fertilize grassland without resorting to "artificial chemicals." His idea was that the best way would be to mimic natural ecosystems in which a diversity of species maintains an ecological balance, a heuristic clearly motivated by codes of naturalness and sustainability. After several years of experimentation along those lines, he found a way to rotate chickens across pasture recently grazed by his cows. He explained that the cows' hoofs prints give new grass air to grow while the chickens pick out insects that hatch in cow dung, spread the dung more evenly, and add their own.

The authenticity code frequently led grass-fed producers to prefer to sell their meat directly to consumers, even when they had the opportunity to sell via wholesale outlets. Several made the choice not to ship their product to distant consumers, out of concern for the overall carbon imprint of their product. Those that did so because of an insufficient local customer base often acknowledged this deviation from the code, portraying it as a necessary evil. Others doubted if large-scale grass-fed operations and branding companies, which begin to emerge with market growth, are compatible with the local family farm ideal and criticized industrial organic producers for being too similar to conventional agricultural models in their goal of growth.

Creating Community: Collective Identity and Organization

To move from individual entrepreneurs and new production methods to a market, producers in the emergent niche need to develop a positive collective identity that is recognized both internally and externally. This is central to market functioning, as it clarifies relations between different producers that are at the heart of the competitive and cooperative dynamics of sustained markets (Porac et al., 1995; White,

2002; Fligstein and Dauter, 2007). Producer categories simultaneously bound competition, reducing the number of comparable others, and act as a legitimation device establishing comparability with similar others (Porac et al., 1995). Collective identities also aid in the creation of industry-specific knowledge and culture through institutional and learning processes (Abrahamson and Fombrun, 1994).

Establishing a collective identity is particularly important to emerging producer communities that seek to break with institutionalized field frames and codes and support practices that run counter to the incumbent system (Lounsbury, Ventesca, and Hirsch, 2003; Rao, Monin, and Durand, 2003). In addition, collective identities give rise to cooperative efforts to institutionalize the market category. To create and maintain this community, producers need to establish external boundaries as well as internal cohesion. Cultural codes, as well as social ties and coalitions created by the movement, supply the resources for both tasks.

Establishing external boundaries. In a new market, when identities are often fragile and vague, one significant challenge is how to move from individual production to a category of production that is recognized by external actors and institutions (Lamont and Molnár, 2002; Rao, Monin, and Durand, 2005). Entrepreneurial producers must differentiate themselves collectively from other market participants and mark and maintain these boundaries. Moreover, they must imbue the new category with value to form a source of positive identity. Early producers in grass-fed agriculture faced problems typical of grassroots efforts to create a valued producer identity. They had difficulties explaining to other producers what they did and were devalued as “nuts,” “crazy,” or “mavericks.” Consumers did not identify grass-fed beef as a distinct product; when they did, they associated grass-fed with inferior quality. The proliferation of terms and labels used to describe beef and other meats, such as “all natural,” “organic,” “free range,” or “prime,” added to the confusion. Yet, at the present time, most ranchers recognize the category (even when they do not like it). Many consumers ask for grass-fed meat and dairy products and associate grass-fed with premium quality. The USDA is considering a “grass-fed” label, a move that is being supported by the American Grass-fed Association, established in 2003, which also pushes for a stricter standard than originally proposed. Grass-fed producers themselves did much to overcome the challenges to create a recognized, distinct, and valued category.

We found that producers and other supporters of grass-fed products and practices mobilized the movement’s central cultural codes to differentiate grass-fed from other types of production. The binary structure and value dimension of these codes are significant in two ways. First, they allowed grass-fed producers to automatically devalue the out-group. Secondly, they provided a pathway to extrapolate from specific practices to polarized oppositions. For example, if pure “heritage breeds” such as Angus cattle work well on grassland, then non-pure crossbred cattle becomes another source of distinction. A veteran producer and activist made comprehen-

sive distinctions between conventional and grass-fed production:

These [feedlot] cattle get sick a lot . . . feed them antibiotics, and sodium bicarbonate, they are crowded, they are always in dust or mud, that's a problem if you really look at that, you have to admit that . . . they are kept on the verge of acidosis, you get respiratory disease, animal waste and runoff issues, and you don't do anything to contribute back to the land . . . you apply very high levels of nitrogen, you are mining minerals and nutrients out of the soil and aren't replacing them. The only way to replace it is through managed grazing, and we found that animals stay well, they don't get sick, death loss and morbidity loss are much, much lower, don't need to feed antibiotics, don't need sodium bicarbonates, hormones or any other crutches to finish the cattle. We are building organic matter in the soil, cattle putting back nutrients . . . livestock that are grazing can literally help remove carbon from the air, much more so than any other technology that we have right now. Fatty acid profile benefits from a human health standpoint, environmental attributes, animal health and welfare benefits, so the benefits are just huge.

This interviewee enlisted the sustainability code to differentiate between positive grass-fed practices as helping the environment and treating the animals well versus conventional production as polluting and treating the animals poorly. He evoked the naturalness code to distinguish between healthy grass-fed products and hormone-injected, unhealthy conventional beef products. As the quote illustrates, grass-fed producers were able to map the conceptual and moral space of their industry in a comprehensive way through the use of multiple binary codes that established overlapping symbolic boundaries between themselves and their opposition. In drawing on these value-laden codes, grass-fed producers infused their collective identity with moral goodness—evoking such images as pure, clean, sincere, and nurturing—and simultaneously devalued the incumbent production system. We also found that grass-fed producers identified weaker external boundaries in relation to related forms of production, especially the certified organic sector and local food suppliers at farmers' markets. Here distinctions were based on comprehensiveness and purity, of grass-fed production not being compromised by large-scale or conventional methods.

Leading activists also engaged in active boundary maintenance by identifying core practices and beliefs that define the grass-fed category membership and by policing and building institutional support for them. Web sites of producers and grass-fed groups, including the American Grassfed Association, were notable outlets for educating the public about grass-fed production practices and products and differentiating between grass-fed and other types of meat and dairy. The question about the core elements of the collective identity of producers came to the forefront in discussions about a USDA proposal for a "grass-fed" label in 2006. The initial proposal did not specify that grass-fed animals should spend their entire lives on pasture, and it required them to receive only 80 percent of their life-span nutrition from forage, causing a storm of protest from existing producers and sympathizers, who pointed out that practices allowed by the proposal, such as a grass-based feedlot system or supplementing hay with corn rather than forage silage during

winter, were not compatible with the category. As one of the comments submitted to the USDA explained:

There is nothing in the definition that requires that these animals be out on pasture. This means that feedlots could feed harvested grass based on the definition as written in the Federal Register and market that beef as "grassfed." I would think this is highly misleading and this is an opportunity for the USDA to clarify what "grassfed" really means. The definition should be amended to say that only animals that have free access to pasture and/or range should be allowed to label products as "grassfed."

It is therefore quite clear that "grass-fed" can mean more than animals feeding on grass. Rather, several specific practices were defined as symbolic markers to anchor and protect the cultural codes that initially fueled the emergent category. As a result, the AGA also introduced its own more comprehensive, grass-fed certification protocol.

Fostering internal cohesion. In addition to creating external boundaries for the market, another challenge for the creation of collective identities in emergent communities of producers is to facilitate internal communication and a sense of belonging. Early pioneers are often dispersed and isolated within the predominant system. They also need to develop a common language and agree on basic premises to lay the foundation for collective action, be it competitive or cooperative (Van de Ven et al., 1999; White, 2000; Lamont and Molnár, 2002). These challenges of collective organization are heightened in contexts in which producers deviate from the logics of a highly institutionalized field (Haveman, Rao, and Paruchuri, 2007).

One of the specific challenges facing producers of grass-fed beef and dairy products was their geographical dispersion and small numbers. Grass-fed producers are located in all regions of the country, and they are often also isolated locally, living in rural communities in which they are the sole grass-fed ranchers. As one producer described it, "The hard part about being a pioneer is all them damn arrows in the back. I don't know any other full-time grass-fed cattlemen in [my state] besides myself." Many very early producers did not even know that others were doing grass-fed production. As a pioneering rancher put it, "I set out on what seemed a lonely journey." Another challenge was that a fair proportion of early entrepreneurs were second-career farmers with backgrounds not rooted in local farming communities. Preexisting mobilization networks and the movement's central cultural codes helped them overcome these challenges of fostering connections.

We found that cohesion among producers was fostered through the interplay of their preexisting networks and the common denominator of cultural codes of sustainability, authenticity, and naturalness. The cultural codes represented values held by most, if not all, grass-fed ranchers and fostered personal relationships with like-minded others. Existing social networks allowed for the dissemination of knowledge about other producers and of the ideas associated with grass-fed production to potential participants. Although cultural resonance and networks ultimately became intertwined,

we found that the typical route to participation in the producer community differed between transition farmers who had previously run non-grass-fed operations and those for whom farming was a second career. Because transition farmers were already embedded in agricultural communities, social brokerage more often provided initial exposure to the social codes underlying grass-fed production and the impetus for connecting with other producers. By contrast, resonance with the code provided the initial impetus for many second-career farmers, who became interested in the industry because of their value commitments but who were not initially well connected with professional networks in agriculture and had to resort to more formal means, such as books, conferences, and Internet forums to establish relationships with like-minded producers.

This confluence of shared beliefs about farming and social networks enabled grass-fed producers to increase the cohesion of this community in spite of their physical separation and potential for competitive rivalry:

Everybody's helped everybody. Small farmers and ranchers, like ourselves, that want to transcend size. . . . There's a Mennonite family that has grass-based dairy, about 60 miles from us. They make some wonderful raw-milk cheese. I sell their cheese in the store. And we package their pork for them. And they go to farmers' markets, one in Austin, and sell their pork and also sell us some live pigs. Their son, he raises these pigs, and he raises a few extra for us. We process them and package them.

Grass-fed producers with strong ties to local communities were able to tap into preexisting mobilization networks in groups such as the organic and sustainability movement, local community activists, and some churches. One dairy producer observed that many local grass farmers were also active in the movement for home schooling: "They've all opted out before. You have opted out of the system once, it's easy after that. You know how to do it; you know each other." Another producer noted how these understandings and values began to extend to non-producer groups in his local community, who came to support grass-fed farming and ranching by virtue of relationships fostered in other contexts: "There is a crossover between the artists, the economic development people, and the sustainable farmers, they overlap enough and there is such energy that comes from these folks, as long as you cast the net to include all those people, as long as you include everyone you can find quite a bit of cohort there."

Leading grass-fed activists also deliberately formed an organizational infrastructure designed to foster interactions across regions and to provide points of access for second-career farmers. One of the movement's leaders, Alan Nation, edits a trade journal called the *Stockman Grass Farmer*, which quickly became a focal point for information exchange and debate. Other forums, such as Internet message boards and conferences held by the *Stockman*, local groups, and the AGA similarly enabled producers to communicate with each other and realize shared interests and critical mass at the national level. According to one producer, ". . . we find each other so easily through the Internet . . . I would credit the Internet with

bringing people together the way it has.” This infrastructure allowed a body of knowledge about grass-fed production to coalesce and has fostered a common folklore of stories, for example, about the poor treatment of grass-fed producers by larger retail chains such as Whole Foods; the identification of heroes and role models, such as producers Joel Salatin and Dale Laseter, who are portrayed in articles and books; and the calibration on a shared terminology, such as “management-intensive grazing” and “heritage breeds.” As a result, the group developed a shared language that supported its collective identity. Today a significant internal infrastructure exists, including the American Grassfed Association, as well as numerous annual conferences and information outlets. Evidence of internal cohesion and the mobilizing ability of the group includes a concerted campaign in response to the USDA grass-fed label proposal.

Feedback effects. The emergence of a collective identity, external boundaries, and the internal cohesion that arises in the process also motivate further entrepreneurial activity and accelerate knowledge for innovation. For example, the experience of community at conferences alleviates the deflating sense of isolation that many grass-fed farmers experienced initially. It also accelerates knowledge transfer and creation. As one interviewee put it, “Humans, when they adopt something new, need a support system around them.” And another rancher explained, “When I heard about [*Stockman Grass Farmer*] I found out that there was this world of people out there doing grass-finishing, that was the beginning of my familiarity and education. I met a cohort of people that are very interested and shared my values . . . it really fired me up.” The creation of a recognizable community of producers lowered the motivational and knowledge thresholds required for additional entrants and accelerated the growth of the grass-fed market segment.

Creating the Market: Exchange and Expressive Consumption

For any market to function, supply must be brought into contact with demand in “social spaces where repeated exchanges occur between buyers and sellers under a set of formal and informal rules” (Fligstein and Dauter, 2007: 9). The main challenges for creating a nascent market arena are bridging the social distance between producers and consumers, creating an infrastructure of distribution channels and cultural understanding among market participants, and agreeing on quality dimensions that allow for the valuation of products.

Bridging the social distance. To get regular exchange going, consumers need to be aware of and demand new products. In new markets, this condition is often hindered when producers and potential consumers are socially distant. The two groups may not occupy proximate geographic positions or may differ more broadly in their locations in economic, cultural, and social space. Social positions are linked to habits and tastes that shape individual consumption choices (Bourdieu, 2005; Zelizer, 2005; Lizardo, 2006). For existing markets, this distance is bridged by a mediating infrastructure of distribu-

tors, critics, and marketing channels. Yet producers in new markets that reject existing structures, such as wholesale distribution, face a challenge in reaching consumers who would potentially demand their product.

Grass-fed producers were often socially and culturally distant from potential consumers. Many ranchers live in remote rural areas and would describe themselves as tied to the land, politically conservative or libertarian, and of modest income. Though some proximate consumers demand their products, much of the demand for grass-fed products is in the politically more liberal, affluent urban population centers inhabited by “sophisticated consumers” of specialty and alternative food products. Several cattle ranchers in rural areas of Colorado, Texas, and Idaho lamented the absence of a sufficient number of local consumers who actually appreciated their product and their difficulty in directly accessing urban populations and customers, such as chefs at high-end restaurants that cared about sustainable agriculture. One rancher described his desire to connect with these consumers, whom he initially only encountered through his readings:

I started reading about sophisticated consumers—I say that with respect, I’m not disparaging—who wanted their food raised differently, outside the American industrial, factory-farm model. It started with the organic movement in vegetables and then spread more slowly to the center of the plate, to meats. I really wanted to be part of that, since I really preferred to raise cattle here, and not be part of that industrial model.

Although preexisting social ties played an important role in the recruitment of producers and the creation of community, recruitment of consumers mostly had to follow a different route. Ties between ranchers and urban consumers were rare, and consumers’ interest in and knowledge of agricultural production practices were limited. Our data suggest that to connect to consumers, grass-fed producers benefited from elite cultural brokers that were able to translate or “package” the cultural codes of the movement coalition for a consumer audience but that producers also crafted their own marketing channels and messages to convince consumers that their products were natural, authentic, and sustainable.

A number of journalists played a pivotal role as social and cultural brokers who shared the values and understandings associated with the grass-fed movement and enlisted the movement’s cultural codes to reach an affluent urban consumer audience. Individuals such as Jo Robinson, mentioned above, and Michael Pollan and Marian Burros of the *New York Times* had access to consumers by virtue of their membership in urban elites. They already espoused the cultural codes used by the movement and accepted most frames used by producers when they learned about the grass-fed movement. Importantly, they were able to articulate and disseminate corresponding action frames for consumers, such as protecting the pastoral heritage and the environment through consumption choices, supporting compassionate treatment of animals, and eating authentic nutritious food. For example, their articles emphasized the codes of sustainability and naturalness to explain how consuming grass-fed

products was simultaneously good for the environment, animals, and human health. Marian Burros proclaimed that grass-fed meat is “fast losing its reputation as tough and tasteless, but good for you” and that producers have “relearned the science of rotating pastures and determined which grasses provide better nutrition in a region like the Northeast.” Through the work of such brokers, the movement’s codes (and products) were brought to the awareness of consumers and translated into action frames and language attuned to this audience. This re-packaging of broader codes into frames for consumer action fueled the demand for grass-fed products and helped bridge the distance between producers and consumers.

Although brokers played a large role in the initial innovation of effective frames for consumers, producers adopted effective marketing messages relatively quickly, as evidenced by the presentation of grass-fed production on farms’ direct marketing Web pages. One producer explained that he found three basic groups of end consumers for grass-fed products: young mothers who care about finding natural nutritious foods for their children; young adults who are passionate about sustainability and want to be part of an ideological movement; and people with health concerns or problems who want to eat pure, safe meat. Another producer suggested that she reached consumers who look for authenticity and find “comfort in the directness of the product.” One reason these messages resonated so well with consumers was that some of them were influenced by spin-off movements of the same countercultural and environmental movements that provided the initial impetus for grass-fed production and so subscribed to similar cultural codes as grass-fed producers. In recent years, grass-fed producers have been able more easily to disseminate awareness through the networks of consumers’ groups such as the slow food movement, campaigners for raw milk, and chefs concerned with heritage foods, organized in Renewing America’s Food Traditions (RAFT). This was not true in the very early days of the grass-fed movement. One producer told us of failing to find sufficient demand for grass-fed beef in a large urban area in 1998. His second venture, started in 2005, was more successful with the same marketing message, and he credited consumers’ changing interests and awareness, claiming that “we were just too early, the timing wasn’t right the first time.”

Creating an alternative exchange infrastructure. Entrepreneurial producers must also develop an appropriate infrastructure for the practicalities of exchange. This infrastructure includes places and physical channels of distribution, as well as a cultural understanding for decoding and interpreting market signals between producers and consumers (Mick, 1986; Spillman, 1999). Creating such an infrastructure is a particular challenge for entrepreneurs who view the structures of the incumbent system as hostile and incompatible with their purported alternative. As they did for production choices, the movement’s cultural codes provided producers and consumers alike with diagnostic and prognostic frames for evaluating alternative distribution channels and terminologies.

Grass-fed producers faced a number of hurdles when they tried to operate within the existing exchange infrastructure. Most slaughterhouses were only equipped to handle large batches of cattle and were often unwilling and unable to process the smaller orders of grass-fed producers. USDA regulations were geared toward such large-scale processing plants and proved costly for smaller producers. Additionally, many traditional grocery stores were unwilling to sell specialty products because of regional or national purchasing models that required a reliable supply in large quantities and of stable quality. Others were unable to market and retail grass-fed products because retailers lacked the conceptual vocabulary to frame and explain the product. Even when these structures were commercially viable for them, many grass-fed producers expressed anti-industrial sentiments and were reluctant to sell through large retailers. For example, one producer questioned the way a retail chain would market his product, asking, "Are they going to represent and market our product like we would? If their employees have partiality somehow, if there are price differences, would they be able to explain the difference?"

Most producers instead resorted to a variety of alternative distribution channels pioneered by earlier movements in food and agriculture, such as farmers' markets, buying clubs, direct marketing, and Internet sales. In addition to interacting directly with consumers via their Web sites, farm stores, and farmers' markets, a number of producers also pursued forward integration to reduce their dependence on channels associated with the conventional food distribution system. One rancher said, "We are going to build our own processing facility to kill, cut, and wrap because want to have control over it, not to have to depend on industrial processors that don't know how to do it and don't care about the product." Although not inherently connected to grass-fed production, these solutions to distribution were compatible with the grass-fed movement's meaning system. For example, direct marketing was consistent with the authenticity code of unmediated contact, or "eliminating the middle man." Building a small local meat processing plant followed the same logic and also made sense within the sustainability code of creating more local and integrated systems.

Alternatives for physical distribution also offer opportunities to disseminate new vocabularies and frames to consumers (Halweil, 2004; Fromartz, 2007). For example, consumers often begin visiting farmers' markets out of curiosity but return because of their changing attitudes toward a number of food issues, including organic and genetically modified food, local and seasonal food, and concerns over the way their food is produced (Lyson, Gillespie, and Hilchey, 1995; La Trobe, 2001). One producer remarked, "I've been humbled and amazed how many people tell my story for free. Marketing is all about telling your story. Most companies pay [public relations] firms to fabricate a story, mostly with a lot of half-truths. We've never done that." The cultural codes enlisted by producers prompted them to frame distribution challenges diagnostically and prospectively and to select channels and marketing stories aligned with these codes. The shared cul-

tural vocabulary that emerged from these interactions offered effective ways for consumers and producers to communicate about the products exchanged.

Creating exchange value. Producers and consumers in new markets also need to agree on the value dimensions of the exchanged product, which is critical for agreeing on pricing (Cantor, Henry, and Rayner, 1992; White, 2002). The exchange value of commodity products is determined by a single or small set of attributes, while price premiums are often achieved by adding symbolic dimensions of quality that make products more unique and less interchangeable (Polanyi, 1971; White, 2002). Such additional quality dimensions can arise from the relational embedding of exchange or from moral and identity-based associations (Csikszentmihalyi and Rochberg-Halton, 1981; Zelizer, 1983, 2005; Spillman, 1999). The challenge for producers in a nascent market segment is to convince consumers about value dimensions that may not have existed under the incumbent market system and to pay a price that is above production cost.

Early producers faced the issue that under the incumbent commodity system, quality was determined by output quality, as the tenderness, juiciness, and marbling of meat or the fat content of milk. Dimensions related to the production process were not included in the valuation. This was problematic because, for example, grass-fed meat initially was of more variable output quality and had to overcome biases about its taste and tenderness. As a result, grass-fed beef had historically been priced lower than conventional products, even though it was more expensive and time consuming to produce.

Our analysis suggests that producers were able to change that valuation so that grass-fed products became premium priced. Specifically, they imbued the product with quality dimensions derived from the production process in addition to quality dimensions of the production output and embedded exchange in direct relationships with consumers (see also Beverland, 2005; Wherry, 2006). Virtually all grass-fed producers in our sample mindfully used the stories and imagery of a wholesome pastoral world on their farm in their marketing materials on Web pages and farmers' markets. This was designed to enhance consumers' self-concepts and to convince them that they were not participating in a commodity transaction. According to one producer, "The consumer wants us to tell a story about the product, and you can't tell a story about a commodity-raised product." Another producer explained, "We're selling a lifestyle along with our beef. Part of what we're doing here, how we're producing, is the whole story." Producers' virtues of dedication and wisdom, and their struggles as authentic, sustainable family farmers, became embedded in the product itself and were strategically used in marketing materials. These production stories are self-enhancing for consumers who can associate themselves with these moralities through the act of consumption. Output quality in terms of texture and taste remains a concern for grass-fed producers, who try to match the texture of conventional meat through improved grazing techniques and by selecting animal breeds with a genetic

predisposition to meet existing standards of product quality. "If it's not tender, they're not coming back," acknowledged one rancher about less ideologically committed consumers.

But for a growing group of more committed consumers, food consumption is already an expression of identity and morality. Producers can therefore enlist cultural codes that transcend agriculture to educate consumers about the virtues of their product and to challenge them to contribute to moral solutions through their consumption patterns. A regular buyer of grass-fed meat praised its authentic taste as "this is what I remember my dad's cooking tasting like; this is what the meat used to taste like." And in response to the "grassfed" label proposed by the USDA, another consumer wrote:

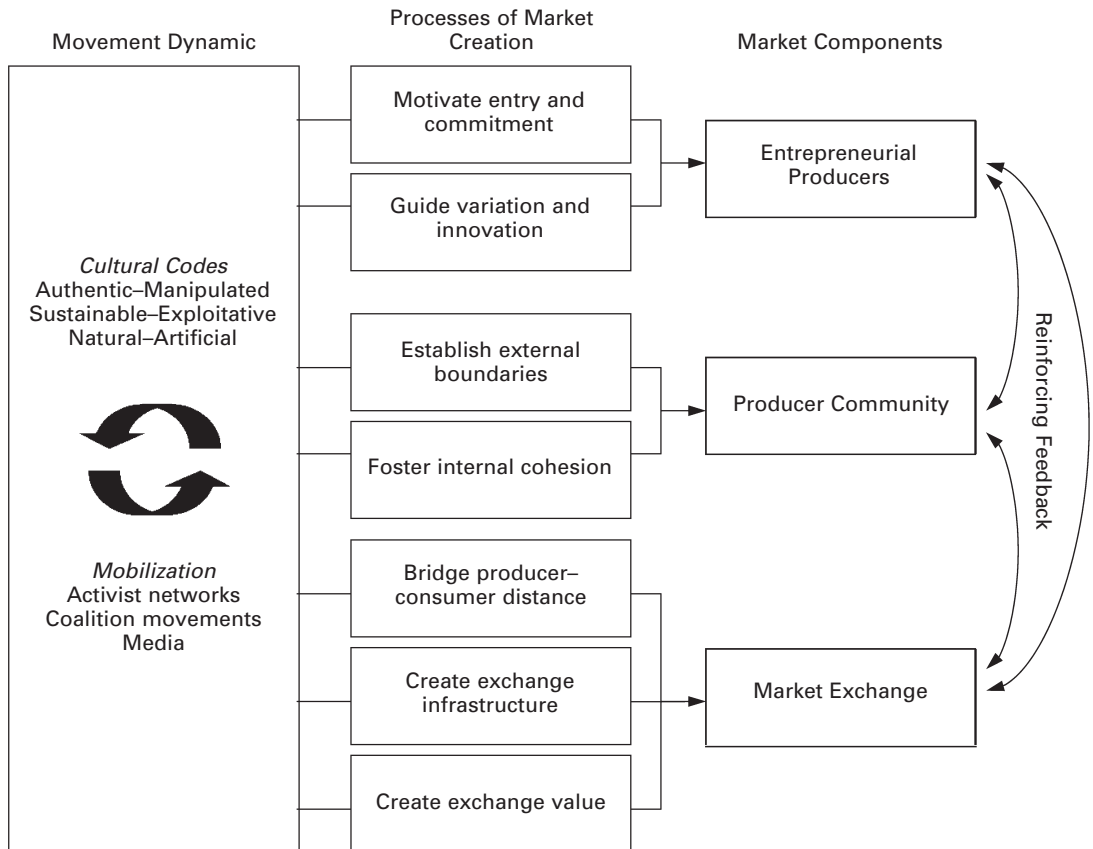
Consumers who seek out grass-fed beef do so for health, humane, and environmental reasons. If the meat they get is full of hormones and antibiotics, it is not better for their health than "standard" beef. And the life of an animal in a feedlot is anything but humane or environmentally responsible or sustainable. Your standards should not mislead the consumer but should help them to select a product in keeping with their moral, health and environmental standards.

Similarly, producers' emphasis on direct contact with consumers not only solves a practical problem of distribution but also adds another dimension of value to the product, by embedding exchange in personal relationships and communities. Customers at farmers' markets reported that they valued seeing neighbors at the markets, appreciating that the market "comes to them," that they are "getting fresh and healthy food," and that they are "talking with the farmers themselves about how to prepare these foods." Others emphasized the importance of knowing "their" farmers, seeing the farm firsthand, and hence being able to trust their authenticity in a world in which they see corporate marketing and official labels as generally deceptive and untrustworthy (see also Grayson and Martinec, 2004; Wherry, 2006).

Feedback effects. The creation of market exchange feeds back to producer communities and entrepreneurship, emotionally reinforced by interactions between consumers and producers and by customers' loyalty. An experienced rancher emphasized, "... we get thank-you notes from families and that's really nice, you don't get that when you take your calves to the sale barn." Cultural brokers' stories that connect grass-fed products to the public good become resources for recruiting new producers and consumers, adding value to collective identities, and for expanding general awareness. The market's feedback effect on the movement has been considerable, as summed up by another producer: "We used to have to tell people why grass-fed and what it is, all that has changed dramatically in the last 12 months [since early 2006, when Michael Pollan's book and several articles were published], now people come to us asking for it. It's made it much easier to do this."

Figure 4 summarizes the key process mechanisms in the creation of the market for grass-fed products. As the diagram suggests, the movement fueled entrepreneurial production by motivating entry and commitment to production and guiding the directions of innovation. It helped create a collective

Figure 4. Process model of market creation.



community of producers by establishing external boundaries and by fostering internal cohesion among producers. Cultural codes and coalitions enlisted through the movement also enabled market exchange by bridging the initial social distance between producers and consumers, by guiding the creation of an alternative exchange infrastructure compatible with the movement's values, and by creating shared understandings of the exchange value of new products. Each process also facilitated solutions to other challenges via feedback processes.

DISCUSSION AND CONCLUSIONS

The study of the relationship between social movements and markets is in its infancy. Especially scarce are empirical studies that directly examine the micro-processes that link these two forms of collective behavior at the very early stages market creation and studies that examine both sides of market exchange in concert. To open this "black box" of how movements fuel and shape the emergence of markets, we drew on an in-depth study of the movement and market for grass-fed meat and dairy products. We found that a coalition of activists employed a shared set of cultural codes that organized collective action among producers and consumers through a repertoire of tactical diagnostic, prognostic, and motivational framings. This movement created a new niche market for grass-fed products in opposition to a highly institu-

tionalized system of industrial agriculture and food production. The movement's codes of authenticity, sustainability, and naturalness energized entrepreneurial production and shaped the direction of innovations; they marked the emerging producer niche as distinct from conventional producers and facilitated a sense of collective identity among producers; and they brought together in exchange otherwise distant demographic groups, suggested an appropriate exchange infrastructure, and formed a basis for valuing products. The movement therefore played a central role not only in legitimating this market niche externally but also in shaping the social organization of the market's participants.

Code Activation, Mechanisms, and Scope Conditions in Observed Processes

We presented this study as an "extreme case" that facilitates theory building about the processes that link the dynamics of movements to the creation of market niches. Although we can identify processes that are associated with this outcome from a single case, we cannot conclusively determine whether these processes are necessary or sufficient for any market creation project or what additional conditions success may depend upon. We can, however, exploit variation and explore counterfactuals in our field data to address the robustness of our model and use documented comparison cases to identify potential scope conditions, particularly concerning the process of code elaboration, the mechanisms through which codes create outcomes, and the conditions under which a movement's efforts result in the creation of new markets.

The process of code elaboration. Our analysis began with a synchronic examination of collective cultural codes and proceeded to an analysis of how participants in the movement deployed these codes in their market-creation project. One may also ask, however, why early activists selected these particular codes and how they connected them to grass-fed production. To address this question, it is useful to distinguish between later entrants, who benefited from the growing community of market participants, and the work of lead activists and early pioneers, who were not exposed to this infrastructure. Data on the biographies of key activists, on adjacent approaches to alternative agriculture, and publications and conference debates prior to the beginning of the grass-fed movement provide an understanding of the origin of the codes. From this historical and comparative angle, it becomes clear that the basic codes of naturalness, sustainability, and authenticity had been central in various environmentalist movements since at least the late 1970s. As pointed out above, pioneering grass-fed producers often had experience in precursor movements and groups. They drew on the same set of codes but sought to differentiate themselves from prior and adjacent movements by virtue of purity and comprehensiveness. The central contribution of these leaders in later stages was twofold. First, they solidified the set of binary oppositions and associated them with specific denotative practices of production, exchange, and consumption through theorization and practical examples, a process not dissimilar to the one described by Schurman (2006) in the

anti-genetic-engineering movement. Second, because of their prominence, they were able to disseminate their understanding of the codes more widely via articles, books, conference speeches, and Web sites. The institutional work of pioneer activists thus allowed later participants to join a movement community with a more complete logic of practice.

Mechanisms linking cultural codes to outcomes. In general terms, the cultural codes mobilized by the movement lent structure and organization to a more diffuse toolkit of specific frames and practices (Swidler, 1986). This toolkit, in turn, served as resources for creating the new market segment. We found that codes affected participants' actions through multiple cognitive and motivational mechanisms (Benford and Snow, 2000). For example, binary codes provided cognitive filters in the search for alternative production technologies and heuristics for evaluating distribution channels. A prominent farmer articulated the counterfactual at a conference: "... if it weren't for these values [of working in harmony with nature], I wouldn't be moving chickens around the pasture [to fertilize it], I would just use chemicals." Codes also supplied a vocabulary of motives for producers to justify market entry and for consumers to justify paying a price premium. The ability to make sense of actions for themselves and for others contributed to the persistence of producers and motivated decisions to enter this market rather than related ones. Although interview accounts of veterans' motivation for entry may be biased by hindsight, we found consistency in the accounts of others who are only now starting production or beginning to insist on purchasing, for example, grass-fed milk. Codes and vocabularies of motive were also consistent in archival documents going back at least to the early stages of market emergence in the late 1990s.

The moral underpinning of cultural codes also suggests motivational dynamics that come before retrospective accounting. Recent research suggests that moral judgments are usually associated with intuitive emotional reactions based on internalized cultural codes, which are followed up by deliberate rationalizations if prompted (Haidt, 2001; Vaisey, 2007). Though we could not directly assess the role of participants' moral convictions in their intuitive decision, several interviewees responded to our probing of why certain practices were incompatible with their values, why they had not considered alternatives, or why they chose one career over the other by simply asserting that "it just felt right/wrong." These responses point to gut feeling as a key emotional guidepost. They also suggest that the binary structure of codes evoked intuitive forces of attraction (doing the right thing) and repulsion (avoiding the wrong thing).

Scope conditions. Our data allowed us to identify two factors that may influence when the mobilization of codes succeeds and when it fails to aid the creation of markets. First, frames to recruit market participants are successful when they resonate with their targets. Resonance is established via cultural codes held in common by activists and targets. For example, two interviewees attributed their failure to recruit consumers for grass-fed products in the mid-1990s and their success with essentially the same marketing message in

2005 to the growth of food-related movements that subscribe to compatible values. Similarly, most conventional producers selling at local farmers' markets reported that they had heard about grass-fed production but were skeptical in light of their own training and not interested in switching. This suggests that a movement is more likely to succeed in creating a new market when it uses cultural codes that are widely shared in society or in proximate groups of potential producers and consumers. Second, mobilization frames were more successful when they were tailored to the target's interest and identity, and producers were more successful when they tailored their communications to customers' knowledge and concerns. This suggests that the tactics with which a code is deployed also influence the code's effectiveness.

Comparisons with other movements suggest other factors that may be involved when the mobilization of particular cultural codes fails to create a sustained market segment. One counterfactual from the same sector as grass-fed products is biodynamic farming, an approach to farming based on the teachings of Rudolf Steiner, supported by a set of powerful cultural codes (e.g., naturalness, spirituality) and an elaborate set of practices. Yet biodynamics in the United States remains a sectarian movement that has little recognition. A likely reason for its relative failure is that the codes employed by biodynamic activists lack the flexibility and inclusiveness that allow a broader coalition to join, perhaps because the movement originated from a single founder, while the grass-fed movement formed as a looser alliance of early participants. Two additional scope conditions for the effectiveness of code mobilization are suggested by Lounsbury's (2005) study on competing logics in the recycling movement and by Schurman's (2004) comparative analysis of anti-genetically-modified food movement in Western Europe and the U.S.A. Lounsbury's study suggests that an early holistic logic of recycling that was promoted by peripheral actors and fundamentally challenged for-profit market institutions was relatively unsuccessful, while the later technocratic logic embraced market institutions, was promoted by elites, and created a for-profit market. This suggests that reformist constructions of codes are more likely to garner elite sponsorship and create markets than are the codes of radical challengers that trigger elite resistance and possibly prevent participants from taking the route of market creation in the first place. Schurman (2004) attributed differences in success to the political opportunity afforded by the structure of the incumbent industry, for example, in terms of concentration and customer focus.

Contributions to Research on Market Creation

Institutional theorists have conceived of market creation as an instance of institutional change within larger fields, often in the course of changing comprehensive institutional logics and field frames (Thornton and Ocasio, 1999; Scott et al., 2000; Thornton, 2004). Recent institutional research has emphasized that new organizational forms and logics must be legitimated to outside constituents by institutional entrepreneurs who combine beliefs, norms, and resources into an

organizational solution to a social problem (Rao, Morrill, and Zald, 2000; Lounsbury, Ventresca, and Hirsch, 2003). Our study provides an account of how activists actually construct alternative logics in opposition to the existing institution. Semiotic codes serve as both a rhetorical and a practical device for developing practices that amount to a "logic" in the broad definition proposed by Thornton and Ocasio (1999). The use of semiotic codes with an oppositional structure allows an insurgent group to articulate a new logic by providing a diagnosis of the deficits of the existing system, a prognosis of what an alternative should look like, and a motivation for action. This gives a concrete meaning to the notions of institutional contradictions and competing logics that give rise to institutional change (Seo and Creed, 2002; Lounsbury, 2005) but also emphasizes that such contradictions need to be constructed and mobilized in the first place. Social movements can play a central role in constructing competing logics by virtue of their usually oppositional stance and mobilizing capacity. Our study also suggests that for new market logics to take hold, they must become embedded not only as organizational producer logics but also as logics of consumption and exchange.

Organizational ecologists see market creation as the speciation of new organizational forms, the creation new market niches, and the entry of early producers (Aldrich, 1999; Carroll and Swaminathan, 2000; Rao, Morrill, and Zald, 2000). Carroll and Swaminathan (2000), for example, suggested that the selection and retention of the new form of the micro-brewery, initially fueled by a movement, was driven by resource space (demand) not served by generalist brewers (Carroll and Swaminathan, 2000). This existing research has paid considerable attention to structural factors, such as demand and industry structure. Our research is complementary in two ways. First, we examined the process of variation in the speciation of new forms: why entrepreneurial producers begin and persist and why they choose particular goals, technologies, and markets that amount to new forms. In doing so, we found a significant role for emotional and identity factors in production choices. While structural factors therefore may well provide opportunity and invite entrepreneurial activity, the type of individuals that take up this challenge, and their personal concerns, also shapes the type of forms that emerge, because these entrepreneurs create the set of alternatives that structural selection forces, such as such as population density and resource availability, then operate upon.

Secondly, changes in industry populations that involve new organizational forms and niches involve reconfiguring exchange relationships. Our study suggests that significant challenges for launching code-breaking markets exist not only in technology, capital, or competition but also in linking demand to supply by bridging social distance, creating cultural infrastructures for exchange, and creating consensus in valuation of products. Hence the failure of a new niche to emerge depends not only on the available resource space in terms of consumer demand (Carroll, Dobrev, and Swaminathan, 2002) but also on the ability to access this demand.

The failure of new market niches can be due to a lack of latent resources or lack of infrastructure for exchange. Social movements can help construct both, and distinguishing the factors affecting resources and access would refine ecological accounts of industry creation.

Contributions to Social Movement Research

Our study also extends work on the impact of social movements in market societies, in which movements seek to effect change through the institution of the market in addition to institutions of the state (Melucci, 1996; Campbell, 2005). Many social movement researchers have focused on mobilization directed at the state and hence have emphasized forms of contestation that are effective in this arena, such as mass protests and civil unrest (Tilly, 2004). Yet markets are more decentralized, less accountable, and more voluntaristic structures than states. Our study suggests that challenges for movements and the tactics through which they effect change in markets are different than those that influence government policies. Opportunities, resources, and framings are still important, and traditional protest repertoires designed to draw attention, mobilize a broad public, and stir a sense of general injustice have been successfully deployed, as in the anti-nuclear and environmental movements. Yet, in contrast to such attempts to transform entire markets, the goal in creating new segments is not to draw wide public attention and directly attack those associated with the dominant system or to fundamentally question the institution of the market. Rather, it is to gain access to and mobilize a subsegment of the population and create boundaries that establish an accepted space for those who subscribe to the codes of the movement. Hence reformist market movements like the one we studied often eschew tactics designed to catch wide attention and provoke confrontation with the mainstream. There were no street protests for grass-fed products, but the creation of the market strengthened the beliefs and resources of participating consumers and producers. This study provides a first step toward understanding the mechanisms through which movements create such a market space: motivating entry, directing technological innovation, forming boundaries and cohesion in production niches, bridging producers' and consumers' social positions, and establishing physical and cultural exchange infrastructures and valuation criteria.

A second contribution concerns the role of cultural codes as a resource for the movement and new market. Our study suggests considering a more differentiated role for culture in understanding market creation, one that distinguishes cultural ideas in terms of their depth and scope (Sewell, 1992; Swidler, 1995). For example, while the concept of action frame from social movement research can be extended to tactical framings that recruit producers or consumers to participate in a market, it is the deeper and broader dimension of cultural codes that creates resonance between diverse allies' tactical framings, because codes are pervasive and reach outside the movement's boundaries. At the same time, the degree of closure and group identity provided by the movement facilitated processes of consensus building about the set of codes

and the coherent set of tactical frames that amounted to an insurgent alternative logic.

Future Research

The findings and conclusions of this study can be extended along several dimensions. For example, we focused on the internal dynamics of the movement and market because so little research has addressed these questions. Yet clearly, broad cultural trends, field-level organizations, and the state apparatus matter in the creation of a market, as evidenced by the role of government subsidies and USDA regulations in the market for agricultural products. Additional research should also more explicitly incorporate political opportunities created by prior movements and attacks on the incumbent system, as well as counter strategies by the incumbent elite (Elsbach, 1994; Rao, Morrill, and Zald, 2000). Examples such as the reaction of fossil fuel companies to the emergence of renewable energies in the wake of the environmental movement clearly suggest that framing contests play out in the political as well as the competitive arena.

Another question worth studying is how the codes and practices imprinted at early stages of a niche's creation persist or are transformed with increasing institutionalization. We concentrated on the early stages of market emergence because research has so far focused on the effects of institutionalization as industries mature (e.g., Lounsbury, Ventresca, and Hirsch, 2003). It is notable in this regard that the grass-fed movement in part has sought to distance itself from the more institutionalized sector of organic food, which it has cast as being co-opted and corrupted by its success in the mainstream. Also, we focused on elements of cultural coherence and on synchronic relationships between cultural codes and market processes, not least because such alignments are a key challenge for market creation. We do not, of course, suggest that this coherence was instantaneous and complete. Future studies could take a more diachronic perspective and examine the co-evolution of frames and mobilizing structures over time and whether and how disagreements within the movement coalition affected the process.

Finally, this study illustrates how movements can provide the impetus for new markets. Not all movements seek to create new markets, and conversely, many market projects proceed without significant social movement involvement. Are markets fueled by social movements then of a distinct type? Or are movements simply one of many sources of collective action for economic activity? For example, regional innovation clusters or professional communities can supply similar resources to face the generic challenges of market creation in the form of semiotic codes and a cohesive community. Arguably, the most unique aspect of markets fueled by movements as opposed to other actors is that the emerging market is a moral as well as an economic project and is designed to dislodge or bypass an incumbent cultural and economic system. It is because of this dual impact on economic and cultural-social change that research on the intersection between movements and markets is needed to understand change in economies and societies.

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