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GMO-free America? Mendocino County and the Impact of Local Level Resistance to the Agricultural Biotechnology Paradigm

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Abstract. In the United States, a supportive regulatory environment for new agricultural biotechnologies is promoting the technology throughout the agricultural system. Sub-national resistance to the technology is burgeoning, however. Specifically, local-level GMO bans are emerging in direct opposition to the national pro-biotechnology development drive. In this article, I investigate the struggles over county-level GMO bans in California, focusing on the first successful ban in Mendocino, one of California's wine counties. Drawing on McCann's (2004) legal mobilization and Bourdieu's (1987) legal 'fields' to conceptualize law as both shaping and being shaped by legal contests, I investigate the extent to which such sub-national tactics are effective in challenging the supportive regulatory environment for agricultural biotechnologies. At its basis, this analysis is concerned with the legacy of such struggles, and their potential for broader social change. This article will further use the case of Mendocino County to reflect on the undertheorized intersection between social movement and legal scholarship.

Introduction

Genetic modification (GM), or genetic engineering (GE), involves the altering or modification of an organism's DNA, most controversially through the introduction of DNA from another organism (in the creation of transgenics).[1] Its use has allowed for the creation of a number of plants with features that could not be obtained through conventional breeding, such as herbicide-resistant crops. Law and regulation play a key role in the successful commercialization of such agricultural biotechnologies in the United States. At the same time, the increasing use of law by citizens and social movements opposed to the social, health, and environmental impacts associated with GM, highlights the importance of law to establishing the place of these technologies in society.

On the one hand, the commercialization of agricultural biotechnologies has required an actively supportive legal and regulatory environment, such as through the expansion of intellectual property rights and the policy of 'substantial equivalence' for regulatory oversight. This regulatory environment has promoted the develop-

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ment, commercialization, and propagation (both nationally and internationally) of agricultural biotechnologies, and has had some significant impacts on the social organization of agriculture. The author has written on this favourable regulatory environment elsewhere (for example, see Pechlaner and Otero, 2008; Pechlaner, 2010, 2012).

On the other hand, a wide range of legal challenges – everything from demands for environmental impact assessments to litigation over the right to label products as GMO-free (genetically modified organism-free) – have been persistently launched by the technology's opponents. This opposition is not limited to the legal field, of course – it is, in fact, quite widespread and diverse (for examples, see Schurman et al., 2003; Mehta, 2006; Schurman and Munro, 2010). However, the technology's reliance on a supportive legal framework could make it more vulnerable to this sort of challenge. The question that remains, and that will be partially addressed here, is to what extent such legal opposition can actually affect the pro-agricultural biotechnology regulatory dynamics in the United States, if at all? That is, if the legal challenges of social movements are a legal success, does this translate necessarily into their being a 'social success', in terms of achieving some measure of social change desired by the social movement?

This article investigates the case of a successful 2004 ballot initiative to ban GMOs from Mendocino County in California, in order to shed some light on the potential for such action to impact the pro-agricultural biotechnology regulatory dynamics in the United States. Unfortunately, there is limited scholarship on the strategic use of California's initiative system by social movements. The initiative system is actually available in 24 states (Manweller, 2005, p. 278 n. 2), and is touted by some as a more democratic political process. Ostensibly, it allows citizens with a particular concern to be able to bring this concern forward to the voting public – provided they can garner the qualifying number of signatures – in the form of a ballot proposition. While the proposition system has faced much critique at the state level – on the premise that it has been captured by well-financed, established interest groups – very little research on this has been conducted at the county level (Adams, 2012, p. 45). The strategic use of county propositions is a promising area of research with respect to mobilization against agricultural biotechnology, however. Mulvaney (2008), for example, notes that because activists have been largely restricted from access to national and international regulatory discussions around biotechnologies, they have responded to this power differential by 'rescaling' their anti-biotechnology activism to arenas where they can exercise more power (2008, p. 149), such as through the creation of GM-free zones. County propositions would fit well in this scenario.

More broadly speaking, the question of the impact of social movement opposition in the legal field is based in two very unsettled theoretical areas. The first regards the impact or consequences of social movements. The second relates more specifically to the potential for legal mobilization as a social movement strategy. I argue that it is exactly the difficulties of assessment of these areas that requires a broadening – rather than a narrowing – of analytical goals.

The initiative to ban GMOs in Mendocino was launched in 2003 by an organic-brew pub owner, Els Cooperrider, in conjunction with the Mendocino Organic Network. Enough signatures were collected to trigger a ballot initiative and a campaign was launched. On 2 March 2004, the ballot initiative to ban the propagation of GMOs passed with 57% support. The text reads:

> It shall be unlawful for any person, firm, or corporation to propagate, cultivate, raise, or grow genetically modified organisms in Mendocino County (Mendocino, CA, Municipal Code, ch. 10A.15, 2012).

Therefore, despite the pro-agricultural biotechnology tenor of the country and even the state of California, Mendocino County instigated the first successful local level ban on the propagation of GMOs in California. On the face of it, the ban would seem to offer some pretty clear conclusions of the effectiveness of law for achieving social movement goals. The consequences of social movements run deeper than face value, however; although our understanding of them is unfortunately poor, both with respect to 'what has changed', and with respect to 'the causal processes that could tie social movements to those changes' (Earl, 2004, p. 508). Guigni (1998, 2008), for example, notes there is much agreement amongst social movement scholars that the effects of social movements have been neglected, somewhat counter-intuitively, given their importance to the motivation for mobilization. When not outright neglecting these effects, the field lacks 'systematic empirical analyses' of the conditions under which they are produced (Guigni, 1998, p. 373).

In part, the difficulties of addressing the consequences of social movements are due to the methodological difficulties of ascribing causal attribution. Guigni (1998) notes that more systematic attempts at analysis have often focused on the 'intended effects' of social movements, and singled out the characteristics of movements that are most conducive to success (e.g. contrasting strongly versus loosely organized movements, and disruptive versus violent protest behaviour). While the contradictory results of such studies may be resolved by new work that acknowledges the importance of environmental context – for example, the role of public opinion and political context (Guigni, 1998, p. 379) – the emphasis on these two factors overlooks the broad range of environmental factors that could contribute to the ability of social movements to elicit social change.

Further, movement consequences are not limited to their intended or policy effects, and include broader consequences such as biographical or cultural outcomes (Guigni, 2008, 2004). Thus, despite the fact that it is through 'altering their broader cultural environment that movements can have their deepest and lasting impact' (Guigni, 2008, p. 1591), the cultural outcomes of social movements are the most neglected (Earl, 2004). One broader effect of social movements can be their impact on further actions for social change. Some of these effects are captured in a small body of literatures – e.g. relating to mobilization outcomes and protest cycles – that track movement–movement interactions, such as spill-over effects between movements, spin-off movements, and the diffusion of tactics or ideologies (Whittier, 2004, p. 532). Whittier focuses on how movements often produce new mobilizations, as one of the 'fundamental outcomes' of social movements is to 'alter the political landscape and thus to alter how other activists see themselves and how they attempt to make change' (p. 548). Not all such outcomes are in a direction desired by activists, of course, as 'movements can generate both allied and opposed movements' (p. 532).

Thus despite the difficulties of causal attribution and of the admirable goal of the systematic study of factors affecting movement outcomes – let alone the difficulties of conceptualizing 'success' or other outcome variables – there are considerable reasons to conclude that the broader impacts of social movement mobilization are the most significant in terms of social change, and that they should receive much more scholarly attention, even if at the initial expense of generalizability.

Taking the Mendocino county action as an example, a number of such broad impacts can be imagined. If a ban on the propagation of GMOs is implemented successfully in one county, for example, other counties and regions could follow with their own bans. At the very least this could impede the uniform spread of GM crops. With the cumulative impact of sufficient local bans, this could impede the commercial production of GMO crops, obstruct the siting of biotechnology-related research stations and test sites, reduce the desirability of investment into new GM developments, sensitize consumers to reject GM crops, and generally weaken the industry. For biotechnologies' proponents, fighting such measures individually 'not only requires significant resources, but it also keeps the public spotlight on opposition' (Roff, 2008, p. 1427). As Greg Guisti from the University of California Cooperative Extension puts it: 'county GMO bans could ultimately serve as an impetus for state regulations' (in Meadows, 2004). In short, it is indeed plausible that county level GMO bans could 'trickle up' to impact the U.S. pro-agricultural biotechnology paradigm.

Given that agricultural biotechnologies flourished in a supportive legal and regulatory environment, the question of social movement impact needs to be further specified to movement mobilization in the legal forum – the study of which has its own particular limitations. McCann (2006), for example, argues that the chronic lack of communication between legal scholars and social movement scholars has left a gap in our understanding of the real ways in which law 'matters' for social movements. He contends that while legal scholars frequently research legal actions initiated by social movements, this work remains focused on the legal action itself and rarely addresses broader mobilization issues. For their part, social movement scholars are more attentive to the 'mix of legal and extralegal social factors' that effect social movement mobilization (McCann, 2006, p. 19), but are less likely to provide 'direct conceptual analysis about how law does or does not matter for the struggles' (p. 17).

In part due to this lack of scholarly communication, such scholarship promotes a false sense of unidirectionality on law and social movement relationships, which fails to accommodate any reciprocity through which changes in the broader society affect legal mobilization and vice versa. Another, related, limitation of such literature is its tendency towards structure/agency polarization, whereby law is either cast as immutable and autonomous or, more critically, as a mere tool for the power elites. In either case, the perception of the utility of litigation as a tactic for social change is often negative (McCann, 2006, p. 18). Given the failure of such literature to investigate the broader contextual picture, it is difficult to assess whether such negativity is reflective of actual limitations of the strategy or whether it is in part a result of a limited focus on end-results.

In sum, the shortcomings of social movement literatures with respect to assessing the consequences of social movement mobilization are exacerbated by the intersection of this literature with legal scholarship. Notably, such scholarship fails to investigate legal conflict in the broader social context, and to assess the use of law as a means of social change within this broader context. Rectifying these shortfalls requires a broadening of the definition of 'law' beyond that of the 'law on the books' in order to assess the reflexive ways in which law and society interact. It also requires a longer time-frame and wider scope for assessing broader impacts of social movements, such as Whittier's movement to movement interaction. McCann's (1994, 2004, 2006) legal mobilization framework, discussed in the following section,

provides a means of attempting this broadening work. The approach 'envisions social disputing or struggles as processes that involve different moments or stages of development and conflict' (2006, p. 24). Such a long-term vision is necessary if the goal of capturing the means through which law and social movements interact and create the potential for social change is to be met.

The interviews for this article were conducted as part of a larger comparative investigation with a similar attempt in Lake County, California, which is itself a part of a larger research project assessing the potential for legal mobilization as a form of resistance to the U.S. pro-agricultural biotechnology paradigm. Given my interest in interviewing key players (both pro- and anti-initiative), interview subjects were selected in a purposive manner. Subjects were identified from local news reports, initiative-related web sites, from key agencies/institutions of relevance, and through identification by others for the significance of their role – the latter required multiple identifications. To date, 21 interviews have been conducted on the Mendocino and Lake County initiatives. Fourteen of these were specific to Mendocino, and included participants in the initiative (either in favour or against), as well as interested parties, such as the agricultural commissioner (past and present) and the president of the Mendocino Wine and Winegrape Commission. The interviews were face-to-face, semi-structured interviews, the majority of which were conducted in the summer of 2009. A few were conducted by telephone in subsequent months. Given these interviews were conducted about activities that occurred over five years prior, there are obvious limitations to subjects' responses. The extended time-frame does allow for a better ability to assess the legacy aspects of the action, however, which is an important aspect of the current research.

The next section of this article will provide further theoretical critique for the article, highlighting McCann's legal mobilization framework as an ordering device for a broader analysis of such initiatives. In the subsequent section, I will discuss systematically the initiative according to this framework, keeping an eye on what it reveals for the prospects of law as a means of social reform. Can law provide a means of 'real substantive empowerment' for those concerned about weak federal agricultural biotechnology regulation or only 'a momentary illusion of change' (McCann, 1994, p. 3)? In my conclusion, I will consider the effectiveness of such broadening of analytical goals for understanding the consequences of social movements.

A note needs to be made here regarding the Mendocino action as a case of social movement action, as opposed to a simple direct democracy campaign. The line can be fuzzy. I agree with Schurman and Munro's (2003) characterization of anti-biotechnology activism as complex and multifaceted: a 'loosely connected bricolage pattern of action', with a wide network of activists engaged in an equally wide variety of 'issues, social concerns and interest groups' (2003, p. 115). Decentralization is thus a defining feature of such activism, with local-level activism having 'cultural and political dynamics' that go far beyond the specific event they undertake (ibid.). The initiative to ban GMOs in Mendocino is an action taken clearly in the context of this array of decentralized anti-biotechnology social movement activities. Thus I consider it a social movement action, albeit not one taken by a specific anti-biotechnology social movement organization.

It should further be noted that while most law and social movement scholarship refers specifically to litigation, the Mendocino case-study concerns legal change outside of the courts per se, specifically through a ballot initiative. While there are some

obvious and important differences between ballot initiatives and litigation, these differences do not compromise the benefits of the proposed framework for analysis.

Law and Social Movements: Theoretical Perspectives

As noted, much law and social movement scholarship casts the interaction between law and social movements unidirectionally – either analysing how social movements affect legal change or how law constrains social movement action. Such characterizations miss the dynamic and symbiotic nature of the relationship, whereby, as Coglianese states, 'changes in society's values and public opinion can feed back into the legal system and affect the prospects for law reform and enhance the effective implementation of legislation' (2001, p. 86). McCann (2006) argues that while there have been some efforts made to connect legal and social movement scholarship, even recent efforts are hampered by the polarization between those who view the complementarity of legal tactics and social movement goals, and those who view law as a constraint on them (2006, p. 18).

Another weakness of law and social movement scholarship is that it often succumbs to polarization between structural and subjective accounts of law and society, or what Bourdieu calls formalist versus instrumentalist accounts. Formalists cast law as immutable and constraining, and usually overvalue its neutral and autonomous nature. More critical visions often conceive of law 'as a tool in the service of dominant groups' (Bourdieu, 1987, p. 814). Bourdieu provides a means to avoid such pitfalls through his conceptualization of the 'legal field', which he casts as largely the product of two factors: 'the specific power relations which is its structure and which order the competitive struggles' and 'the internal logic of juridical functioning which constantly constrains the range of possible actions' (p. 816). Thus, while the outcome of legal contests is not structurally predetermined, neither is it wholly unpredictable.

In a related vein, McCann suggests that instead of debating 'instrumental effectiveness' (2006, p. 19), and other forms of position taking, a more profitable focus would be derived from an assessment of 'how law matters' for social movements (ibid.). That is, there are multiple ways in which law and social movements interact. How law will or will not matter for movements will depend 'on the complex, often changing dynamics of the context in which struggles occur' (2006, p. 35). Pointedly, it is not just by the end result that we can assess the effectiveness of a course of legal action for social change – we must assess not only changes in law, but its implementation and any backlash as well.

Drawing on the insights from the above, in order to capture the relationship between law and social movements, law must be conceptualized more broadly than 'black letter law', to include how it functions in social context. This is an important part of understanding the frequent gap between landmark court victories and actual changes in social relations, on the one hand, and the creative ways that social movements sometimes draw power from legal conventions, despite only limited judicial support, on the other (McCann, 1994, pp. 3–4). Understanding the wisdom of taking such an approach, and the practicalities of doing it, are two entirely different matters, however.

McCann (1994, 2006) has dedicated some scholarly attention to this issue, ultimately devising a 'legal mobilization' interpretive framework for investigating the means in which social movements interact with the law. While he developed his

framework in the context of his seminal work on wage equity reform, his goal was to develop an analytical approach 'applicable to legal reform activity in a variety of contexts' (1994, p. 5). I take this framework as an ordering device for my investigation into the impact of the Measure H initiative in Mendocino County. This framework outlines four moments, or stages, in the interaction of social movements and the law, which I will briefly outline here.

In the first stage, law is recognized as potentially transformative for social movements, sometimes to the point of law acting motivationally to movement formation. Legal norms and traditions can become important elements in constructing perceptions and claims that ultimately form the basis of a new movement. For example, according to McCann, sustained legal action over wage equity rendered employers vulnerable to challenge, expanded resources available to working women, provided unifying claims of egalitarian rights, and increased workers' ability to advance further claims (McCann, 2006). Legal action can also act to 'discourage, thwart or contain social movement development' (2006, p. 28), however, such as by narrowing the scope of its development or diverting resources from more effective mobilization strategies.

The next moment for law and social movement interaction outlined by McCann is legal mobilization as a form of political pressure – for example, when legal advocacy is used coercively for 'institutional and symbolic leverage against opponents' (2006, p. 29). This tactic can advance movement goals cheaply and effectively, but also risks the social movement having to back up threats with expensive legal action or lose credibility. The effectiveness of this strategy is clearly affected by the social and legal context, such as by favourable legal precedents. McCann's 2006 work distinguishes different components of this moment, but the all-encompassing 'struggle to compel formal changes in official policy' used in his earlier work is most effective here (McCann, 1994).

The third of McCann's stages is 'policy implementation and enforcement'. New laws or policies without effective policy implementation accomplish little. Although implementation is usually crucial to social movement goals, many scholars find legal leveraging towards this end 'limited in significance' (McCann, 2006, p. 32). Nonetheless, it can affect policy implementation. Dominant groups prefer discretionary policy, where symbolic gestures can be more easily substituted for higher cost substantive change. Consequently, social movements often turn to litigation 'specifically to create such formal institutional access… as well as to apply pressure to make that access consequential' (p. 33). This stage is actually another form of the preceding stage, but acts further in time in the relationship between social movements and their opponents.

The last stage involves the 'the legacy of law in/for struggle'. This often neglected issue in law and social movement studies is an assessment of the 'fruits' not only of direct legal action – in this case, the adoption of a ballot initiative – but of those that occur in the broader societal and institutional changes. Similar to McCann, I believe the impact of social movements requires assessment not only of the direct effects, but of the indirect and 'radiating' effects of the use of legal action (Galanter in McCann, 1994, p. 10). Consequently, a very important component of this 'legacy phase', occurs in the aftermath of movement struggles, where backlash and retrenchment become evident.

The Interviews

To put the Mendocino initiative into context, agricultural biotechnology has been adopted rapidly in the United States since its first commercialization in the mid-1990s. While adoption varies by state, key crops such as corn and soybeans were already over 80% genetically modified by 2006 (James, 2006). Genetically modified beets, which were only planted commercially in 2008, were predicted to reach nearly 100% adoption by 2009 (Kilburn, 2009). At the same time, environmental, health and social concerns over the new technology have flourished. These concerns have been bolstered by the US regulatory approach of 'substantial equivalence' and overall regulatory laxity, which has been the source of much criticism and has been highlighted by a number of high-profile contamination incidents. The most notorious of these that occurred prior to Measure H were the contamination of the food chain by unauthorized genetically modified Starlink corn in 2000 and genetically modified LL06 rice in 2006, both of which disrupted international markets (for an excellent treatment of Starlink in the context of regulatory failure, see Bratspies 2002, 2003).

California is at the crux of these tensions because it is both the top agricultural state in the country and has significant pockets of those with more progressive and alternative perspectives. This is further reflected in California's position as top state for organic production. Mendocino County is one such pocket. It is, by some accounts, a 'renegade' county (Brillinger, personal communication, 15 July 2009), and it is frequently characterized as being filled with individuals who moved there to escape urban life, who valued their individuality, alternative lifestyles and right to privacy. It is a characterization compatible with resistance to any perception of bullying by 'corporate America'.

I will now turn to a discussion of the interview data in the context of McCann's suggested stages for analysis. Due to their greater relevance for this case, I will focus on three of the four stages – law and the genesis of social movements, policy implementation and enforcement, and the legacy stage – all the while keeping an eye on where law acted as a constraint and/or a helpmate towards social movement goals.

Law and the Genesis of Social Movements

The first analytical stage relating to the genesis of social movements is particularly interesting for the Mendocino case. First of all, the effort to ban GMOs in Mendocino was not launched by a campaign-savvy, non-governmental organization, but arose from the interests of a limited number of concerned individuals. In fact, it even had a redirecting – if not a risk of thwarting – impact on a pre-existing statewide social movement organization with specifically anti-GM goals. While the campaign galvanized an enormous number of people into action, and by all accounts (even opponents') was wildly effective, this did not translate into any apparent lasting change in the non-profit organization that sparked it, nor did the movement appear to become institutionalized in another form, for example, through a broader movement undertaking similar initiatives. Rather, it appears to have reverted back to a loose consortium of interested individuals. At the same time, rather than the 'movement' shutting down at the campaign's end, the success was passed like a torch to interested parties in other counties, and served to stimulate similar social movement activity there. I will expand on these points each in turn.

In the years prior to the initiative to ban GMOs, Els Cooperrider had been a community activist on various issues, hosted a radio programme, wrote letters to newspapers, and, in her own words, 'became known as pretty much a rabble-rouser in the area' (Cooperrider, personal communication, 26 June 2009). She had even run for county supervisor at one time. Thus she had a wide contact base, something she credits in part for the degree of efficiency with which the campaign was mobilized, and a sufficient degree of political awareness to recognize the potential of a county level ballot initiative.

The Mendocino Organic Network was actually comprised of only four members, including Els, and with the use of $1,700 in seed money they had raised at farmer's markets their goal was to promote local organic agriculture in some as-yet unspecified manner. The other three members were all on the board of directors of the local food co-op. Dismayed by their inability to get the co-op to label GMOs in the store, they wondered about the prospects of starting a movement to label GMOs. Els had an alternate suggestion:

> 'Instead of going to all the effort to get a labelling law into effect, which we could only do for Mendocino county, because we couldn't do it for California – no way – I said, and these were my exact words: "why don't we do something to outlaw the damn things?"' (ibid.).

While labelling would be difficult and laborious to implement given that a majority of products were imported into the region, a ban on the propagation of GMOs would be much less unwieldy. Prior to launching the initiative, Els met with the members of the county Board of Supervisors (BOS) and the agricultural commissioner: the former to suggest the BOS pass a GMO ban themselves, thus preventing the need for a ballot initiative (which they declined); and the latter to query him on his position should they pursue the initiative. Some proponents of the initiative found the commissioner to be a less than an enthusiastic supporter of the proposed initiative. According to Cooperrider, the commissioner 'tried to talk her out of it', and even sent a wine-grape expert to further convince her (but 'of course, nobody was going to talk us out of it') (ibid.). Another proponent went so far as to call him the 'opposition's unofficial spokesperson'.[2] The agricultural commissioner himself spoke of the difficulty of his position, as will be discussed, but at that first meeting the commissioner states that he made it clear that his position was mandated to be one of neutrality:

> 'I told them I would not be able to oppose it, I would have to remain completely neutral, because that was the way the law was… That was kind of the green light for them (Bengston, personal communication, 29 June 2009).

Consequently, Cooperrider and her supporters consulted on the process of launching a citizen's initiative, and with the assistance of her wide network of contacts, collected the required number of signatures to qualify for a ballot initiative. This is already a significant achievement in a process that is characterized by 'consistent failure' (Manweller, 2005). At this point the campaign began in earnest. While the Mendocino campaign did not originate from a social movement organization it soon attracted the attention of one – Californians for a GE-Free Agriculture (Cal GE-Free, hereafter) – who had the same goals as the Mendocino's activists, but wanted them implemented statewide. Cal GE-Free was initially opposed to the Mendocino initiative on the grounds it would ultimately hamper their broader efforts by stimulating

opposition to banning GE. According to Renata Brillinger, the then director of Cal-GE Free, Cal-GE Free ultimately sought out the organizers of the Mendocino initiative in order that they could 'get to know each other's strategies', and discuss their concerns over the repercussions of pursuing a county-level ban:

> 'That was one of the things we were concerned about. Having a kind of a bigger picture view, was what would be the consequences or the dangers or the backlash of getting such a thing passed? We assumed, and were proven right, that there would be a preemption attempt and there's been a number of different ways that that's been done, and it had a much more far reaching effect than we anticipated at the time' (Brillinger, personal communication, 16 July 2009).

The Mendocino activists were nonetheless committed to going forward. They were dedicated to their cause. Further, right from the beginning they were committed to the local basis of their campaign and wanted to avoid any perception of outside influence or 'conspiracy theories' that the support of a larger social movement organization would bring. Consequently, Cal-GE Free did not participate in the campaign in any way except to brace themselves for its repercussions. This emphasis on the local would turn out to be one of the most powerful features of the ensuing campaign.

Both proponents and opponents talk about the effective and well-organized manner in which the proponents of the initiative ran their campaign. It certainly was a factor that many of those at the forefront of the action had important skills to offer the campaign: from the development of a highly effective website by a former website designer, to record keeping, communications, fundraising and volunteer coordination, many players were able to effectively fill high-skilled roles. Further, they were sufficiently dedicated to volunteer large amounts of time to the cause. Many activists I spoke to gave up surprising amounts of time, some even setting aside their employment to dedicate a month or more full-time to it. Cooperrider, for example, hired someone to replace her at her brew pub; their communications person worked full-time for the cause for a number of months; Frey Vineyards' family members dedicated not only themselves, but their staff to the cause, to name just a few examples.

Activists make much about the difference in spending between the ban's proponents versus opponents – a difference of almost 7–1 ($700 000 versus $120 000) by campaign's end (Somers, 2004) – and the grass-roots, local, volunteer base of the proponents, versus the high-capital, externally based, experts of the opponents. There is very little to suggest this is exaggeration. What little money the campaign had in contrast to the opposition was locally sourced, small denomination (e.g. in the $100–500 range) and came from a wide number of contributors. This money was mostly used for print and radio ads, signage, postage and related campaign paraphernalia. The campaign contribution statement of the opposition is a story in itself: successive, $100 000 contributions from Croplife, and large lump payments to lawyers, campaign strategists, ballot initiative strategists, polling companies, and the like, on the expenses side.[3]

Given the vast differential access to resources between proponents of the ban and their opposition, skilled professionals and money were clearly not the deciding factor, however. Rather, wide-scale ownership of the issue appears to have been of central importance. Ban initiators were both highly organized and dedicated to the grass-roots aspect. The county was divided into regions and, within each region,

coordinators were free to brainstorm their own mobilization tactics targeted to their region. According to Laura Hamburg, who became the proponent's media director, people were 'gravitating to the campaign' and their input was welcomed (personal communication, 26 June 2009). As opposed to the highly controlled opposition, the proponents had 'not one, not six, but 30 spokespeople' (ibid.). By all accounts, it was a highly localized strategy. Meetings were held in the Cooperrider's pub, first weekly, and then daily by the end of the campaign, with between 150–200 local residents involved at any one time (Walsh-Dilley, 2009, p. 102). For many involved it was reportedly 'fun'. Volunteers were engaged and empowered.

In the face of an organized local opposition, this dynamic might have been different, and agricultural producers were the one group where such opposition might be found. The largest agriculture sector in the county, however – the wine-grape sector – was 30% organic. The ordinance actually had the potential to benefit, and at very least would not hamper, these producers. While there were conventional growers who had concerns that the ban would prevent them from reaping future technological benefits, there was little organized local resistance. Further, as noted by the past president of the Mendocino Winegrape and Wine Commission, given the long time frame for investment in grapevines – approximately four years before new vines provide fruit, and years of trials to study the subsequent impact on wine quality – producers are unlikely to rapidly adopt a new wine technology, and thus perhaps less likely to put themselves at stake over the issue (Poulos, personal communication, 18 July 2009).

Given the lack of a local face of opposition and the overwhelming outside interest, sentiments were expressed that 'big business' was trying to crush the wishes of the people. Thus, it very quickly became an issue of 'biodemocracy'. This perception was not helped by a suit launched in December by the California Plant Health Association (representing large agribusiness) over aspects of the wording of the ballot initiative. Once again, this could have proved a serious financial problem for the proponents of the ballot initiative, but they were approached by a lawyer before they even had time to consider how they might handle it. She had heard about the suit and offered to assist them pro bono, on condition she could apply for fees (Cooperrider, personal communication, 26 June 2009). The suit was defeated, allowing the ballots to be printed in time for the March election. The vote was held and won, the lawyer got her fees, and those involved slowly returned to their daily lives.

Implementation and Enforcement

While policy implementation is crucial for the realization of social movement goals, the Mendocino initiative is somewhat more difficult to assess given that there was no genetic modification applications in crops currently grown in the county. Rather, the ban was preventative, with the most likely future applications being genetically modified wine yeast and grapevines. Thus implementation was mainly hypothetical, and, in fact, nothing was done to establish protocols for implementation and enforcement for a number of years after the ban passed. Two things changed this. While activists had approached Bengston, the then agricultural commissioner, regarding the creation of such protocols, he was reportedly uninterested in pursuing the issue. Bengston retired in January 2009 and was replaced by his previous assistant, Tony Linegar, who was reportedly 'more receptive' to the issue. Second, the drive for agrofuels production had created a sufficient market incentive in canola

for at least one producer in the region (but outside county limits) to want to grow genetically modified canola. Thus the key players in Measure H arranged to meet with Linegar to press him on the issue of implementation.

For his part, Linegar had concerns regarding the actual text of the measure – specifically, an erroneous definition of DNA much derided by opponents – and its enforceability. It is plausible that the incorrect definition of DNA could render the ordinance subject to legal challenge, should someone be so inclined. According to Linegar, the ordinance had three 'gaping' weaknesses: it did not provide him with any authority to enter property and investigate potential violations; it had no provisions for due process for someone accused of violating the ordinance; and it needed clear indicators for what constituted grounds for investigation (Linegar, personal communication, 24 June 2009). Linegar recommended to the group that they provide him with some suggestions regarding criteria that would constitute grounds for an investigation – for example, a field where crops were thriving in the midst of clearly pesticide-treated weeds could be one such indicator. To date, they had yet to do so but, according to Linegar, what might ultimately be required is a follow-up ordinance to clarify and supplement the original. Whether such clarification will occur in time, and in a manner that will allow for its successful implementation, remains to be seen.

Whatever the practical significance of the ban in regards to implementation, it had clear symbolic and political significance for the state of California, and this ultimately fed back into the implementation issue. For example, not only was the state attentive to Mendocino's initiative, but it was sufficiently concerned that it was interested in impeding it, or, at the very least, its implementation. This is plainly revealed by then agricultural commissioner Bengston's description of what he describes as a 'bizarre' if not highly unethical, telephone interaction with the staff council for the newly minted Secretary of Food and Agriculture at the time.

> 'He proceeded to tell me, he said they're pretty much against the ban, and they are pretty much against me as an ag. commissioner enforcing the ban, if it should pass. That they weren't going to allow it. And they said that they were so against the ban, and they were ready to write a letter to the Board of Supervisors telling them that they couldn't use me to enforce a ban. And I said, well, are you going to write that letter then? And they said, no, well, we're kind of ready but we don't want to cross a line with the initiative process' (Bengston, personal communication, 29 June 2009)

According to Bengston, the attorney was unaware of the many jobs that an agricultural commissioner performs that are similarly not covered by the food and agriculture code, and when he explained the detailed reporting system developed to accommodate such jobs the call soon ended. According to Bengston:

> 'I think they realized what a humongous mistake they made, if not acting completely illegally, trying to influence… because what they were doing was exactly trying to influence an initiative and use me as a tool to go back to the board or the county council and not show their hands or get involved at all' (ibid.).

While the effort to influence the ban in this manner was clearly based on ill-conceived legal advice, in turn based on a poor understanding of the role of agricultural commissioners, it provides a clear view of the state's level of interest in the initiative.

The state ultimately found a new means of influence once the ban had passed. Ten days after Measure H was successful, a letter was sent to all the agricultural commissioners clarifying the 'appropriate use' of funds for county programme activities – the substance of the letter was clearly directed at Mendocino: 'Other activities that counties cannot perform under the authority of the Food and Agriculture Code, or the direction of the Secretary include enforcement of county ordinances against genetically modified organism' (CDFA, 2004).

While not all of the agricultural commissioner's funding comes from the state, the current California budget crisis reveals nonetheless the weak position of the ordinance. As described by Linegar, budget cuts place the ordinance very low on the implementation totem pole:

> 'So when the county is looking at cutting programmes there are two things they are looking at: is it mandated by law and is it funded. Really, even though this is a county ordinance, so on that level it's mandated, on a state and federal level it's not. And it's not funded. So when we get to have to cut our budget and there's no funding for this program, it falls way down in our priority list' (Linegar, personal interview, 24 June 2009).

The Legacy

The legacy of Mendocino's Measure H is complex and multifaceted. For one, the measure passed, and that in itself is a legal change that stands at least until the point of challenge. For a process that has a less than 50% success rate for the few initiatives that make it to the ballot stage (Manweller, 2005, p. 278 n. 5), this in itself is a significant achievement. Whether it can withstand challenge is a further question. From my analysis, three further features have emerged which appear key to the legacy of Mendocino: the impact on further movements consistent with the goals of the Mendocino initiative; the ensuing backlash against such initiatives and crystallization of pro-GM positions; and structural/institutional changes, such as the new, state-level liability law. I will deal with these each in turn.

While the mobilization around Measure H appears to have largely been issue specific, this does not mean that it had no influence on further mobilization. Rather, the Mendocino initiative had been closely watched by like-minded people in other California counties, and when it passed it created a momentum of similar mobilizations. The core group that had orchestrated the Mendocino initiative organized a workshop with interested parties from these counties in order to share their strategies and mistakes. Cal GE-Free paid one of the members a small stipend to assist interested counties in their efforts. Consequently, Mendocino's mobilization was inspirationally, and sometimes even practically, influential in subsequent mobilizations, and these make up a part of the legacy of Mendocino. Interestingly, more than one person notes that talks given by Percy Schmeiser – the Saskatchewan canola farmer who was sued by Monsanto for patent infringement – were instrumental in turning a number of conventional farmers to support Measure H. Clearly, the legacy of legal mobilization does not just start with Mendocino, but is itself building on a legacy of anti-GMO mobilization.

Unfortunately for activists, the opposition had also learned from its mistakes, and while a number of counties managed to either get initiatives going or lobbied county supervisors, and a few of them passed, many more did not. Five more bans were

attempted in 2004, of which two passed – in Trinity (supervisor) and Marin (ballot) – in mainly non-agricultural counties. Another was attempted and defeated in 2005. One passed – significantly, in Santa Cruz (supervisor) – in 2006, and another passed in Lake County (supervisor) in 2008, but its legality was put into question by the discovery of pre-existing cultivation of genetically modified crops in the county and approval was postponed. These attempts are presented in Table 1.[4] While certainly the most common, activity was not limited to the county level. For example, in the same time period, the Californian cities of Arcata, Point Arena and Santa Cruz also approved bans.

Conversations with interested parties, such as with a very involved faculty member at the University of California, Berkeley, suggest these initiatives have largely 'fizzled out' (CA1, interview, 17 July 2009);[5] however, evidence of some ongoing activity can still be found. For example, after Lake County's unsuccessful ban, the Lake County board of supervisors passed a resolution in 2010 to regulate the growing of genetically modified crops through a registration system (Sweeney, 2010).

With respect to the issue of backlash, Cal GE-Free's concerns proved to be very well founded. While the tensions around agricultural biotechnology were already well established in California, Mendocino pushed forward the possibility that counties where different values prevailed could chart their own course. This anti-GMO victory had a legacy for the opposition as well, however. In response to the growing voices supporting further such anti-GM mobilizations, opposition to this mobilization also grew, particularly in the central valley counties where large, conventional agriculture operations were already using them in crops such as corn and cotton. A number of these counties proceeded to pass resolutions in support of genetic engineering. Unlike a ban, these resolutions had no practical outcome attached to them, but they represented a strong political message when coming from important agricultural counties such as Fresno (which grossed over $5 billion in agricultural production value in 2007) (CDFA, 2009, p. 34). By 2006, twelve county-level governments had passed resolutions supporting GM (University of California Division of Agriculture and Natural Resources Statewide Biotechnology Workgroup, <http://ucbiotech.org>, accessed 5 March 2009).

The pressures at play over the potential mobilizations were such that it did, in fact, ultimately spur a state pre-emption bill, California Senate Bill 1056 (2005), proposed by Senator Dean Florez and backed by the California Farm Bureau,[6] large agribusiness, and pro-biotech locales. The bill would prevent local anti-GM initiatives on the basis that different county and city ordinances regulating the use of

Table 1. California county-level GM ban attempts.

County	Date	Name	Type	Outcome	Support
Mendocino	2 Mar. 2004	Measure H	Ballot	Passed	57%
Trinity	Aug. 2004	–	Supervisor	Passed	3-1
Marin	2 Nov. 2004	Measure B	Ballot	Passed	62%
Humboldt	2 Nov. 2004	Measure M	Ballot	Defeated	35%
Butte	2 Nov. 2004	Measure D	Ballot	Defeated	40%
San Luis Obispo	2 Nov. 2004	Measure Q	Ballot	Defeated	41%
Sonoma	8 Nov. 2005	Measure M	Ballot	Defeated	45%
Santa Cruz	20 June 2006	–	Supervisor	Passed	5-0
Lake	21 Oct. 2008	–	Supervisor	Passed but invalidated	3-2

Sources: Meadows, 2004; Miller, 2006; Anderson, 2008; <http://smartvoter.org>.

seed could pose 'serious financial and practical problems, concerning the orderly marketing and sale of agricultural commodities within the state'.[7] Many of the activists involved in Measure H, got involved again to oppose the bill. State pre-emption would compromise not only county-level GM regulation, however, but also other concerns previously under county jurisdiction. Consequently, this opposition found a wide base for support. In conjunction with significant mobilization from activists in Mendocino, Cal GE-Free, and others, the state pre-emption legislation did not pass in California. The backlash spilled beyond California, however, and in an apparent response to the activities in California, similar legislation was proposed in various states across the country: many of these did pass.

While the Mendocino initiative could have been considered a hindrance to Cal GE-Free's mobilization, Cal GE-Free ultimately capitalized on the experience and contacts they gained in defending against SB 1056 to undertake a new statewide initiative. As Brillinger describes it:

> '[The legislative processes] is not intuitive, it's got its own set of rules, and so working on state legislation, you know, is its own sort of skill set, and had we not had the pre-emption experience… We never intended to run a state bill. We thought about it way back in the beginning, and we said, oh well that's years away, we can't just jump to that place… [W]e'd been together four years by the time we started fighting state pre-emption, which is much quicker than anybody expected us to get to the state legislative arena, but it was only because those circumstances led us there' (Brillinger, personal communication, 16 July 2009)

In response to their efforts, California Assembly Bill AB 541 (2007) was introduced by Assembly Member Huffman in February 2007. Bill 541 was essentially a liability law for GM technology, but when it was first introduced it included a number of very progressive features. Over the succeeding years of negotiation, many of the bill's more controversial features were dropped – notably, a requirement of a 'system of notification for the locations of [genetically modified] crops', the confinement of 'experimental pharmaceutical-producing crops to greenhouses', and the assignment of liability for any genetically modified crop contamination to the technology's manufacturers, as opposed to farmers (Genetic Engineering Policy Alliance, 2008). While many rumblings exist regarding the ensuing bill's 'weakness' and 'watering down' of activist's goals, Cal GE-Free's approach from the beginning was strictly pragmatic, and focused on what they might actually succeed in passing. Thus many compromises were made in order to gain broader support – most importantly from the California Farm Bureau, which was a powerful influence and which to date had opposed any regulations of genetically modified crops (ibid.).

In its final form, AB 541 outlined just the kind of protocol that many argued was blatantly lacking in the infamous case of Monsanto's infringement suit against Saskatchewan farmer, Percy Schmeiser (for more on this case and the issue of liability more broadly, see Pechlaner, 2012). AB 541 outlined protocols for obtaining and testing crop samples, and provided protection for farmers 'who acted in good faith' from liability for GM contamination 'based on the presence or possession' of a patented genetically modified plant, provided that this presence was minimal and the material was not knowingly acquired.[8] On 27 September 2008, Bill 541 was signed into law. While AB 541 does not cover many of the key health and environmental concerns raised by GM's opponents, it is nonetheless hugely progressive for even its

limited concerns in contrast to a clear federal reluctance towards liability legislation. In the words of Cal GE-Free's president, the end result was 'only a tiny sliver of what we would ideally think… should be put in place', but nonetheless, 'it remains one of the only bills in the county that in any way shape or form attempts to put any kind of limitation on the free market reality of GE crops' (Brillinger, personal communication, 16 July 2009).

Despite the limited success accomplished, the experience was 'painful' and Brillinger saw no future in furthering such attempts at regulatory reform, given the degree of power that rested in the hands of conventional agriculture. In fact, Cal GE-Free itself was undergoing a transformation and the organization was refocusing on sustainable agriculture more broadly, specifically with respect to climate change. Genetic engineering would be one of four subsets of that issue. Consequently, the organization changed its name to California Climate Change and Agriculture Network (CALCAN).

Conclusions

If the Measure H movement is any indication, it is only by broadening our analytical scope that we can begin to gain any insight into the real consequences of social movements. Breaking the analysis into the different 'moments' where social movements interact with law provides a strategy for this more meaningful interpretation of 'how law matters' for social movements than might be possible by focusing on limited causal factors or outcomes. Through these 'moments' the broader, cultural, aspects of the movement begin to be exposed. Thus, Mendocino suggests important additions to the growing body of work on what Guigni calls the 'political, (mainly policy) effects of social movements' (2008, p. 1583) or what Amenta and Caren call the 'external consequences… especially those relating to states and struggles over legislation' (2004, p. 461).

Rather unequivocally we see here how law acted as a constraint on the range of possible actions of those interested in regulatory reform for GMOs. Proponents of the measure to ban GMOs were concerned about the health, environmental and/or social risks of agricultural biotechnology and felt that the current regulatory regime was insufficient. At the same time, those involved saw very little recourse for input, not only at the international and national levels, which dominate biotechnology regulation, but even at the state level. For activists, regulatory oversight in California was seen to be ruled by the conventional farm industry and its organizations, such as the Farm Bureau. Thus the habitus of those in the legal and regulatory fields were antithetical to the goals of activists, and this played a central role in their choice to pursue a county-level GMO ban as opposed to another form of regulatory reform. For Mendocino county activists, this was something that *could* be accomplished, in part because as a citizen's initiative it circumvented having to navigate some of those fields.

From our assessment of the implementation stage, it was clear that even once the ballot was won, the battle was far from over. Broadening McCann's legal mobilization approach even further with the help of Bourdieu's (1987) conceptualization of legal fields could provide significantly further insights here. Where legal change requires citizen input, as in a ballot initiative, factors that influence the salience of the topic for citizens will be far more influential than the subtleties of Boudieu's notion of habitus. In this case, for example, the characterization of the local standing up to

big business was an issue of particular salience for Mendocino voters. The casting of law as a 'field' rather than a code – with its opening of awareness of the elements that comprise the players in that field and habitually constrain their actions – could provide significant insights into the implementation of the new law on the books, however – something markedly evident in the strained role of the Agricultural Commissioner, for example.

Last, the Mendocino case suggests that the legacy phase of social movement interaction with the law is extremely multifaceted and complex. Nonetheless, it is also the most compelling for assessing the efficacy of law for social change – for assessing the extent to which social movement legal mobilization can actually affect the pro-agricultural biotechnology regulatory dynamics in the United States. The legacy phase also includes the initiative's backlash, of course. The importance of questioning whether this backlash undermined any gains made through such mobilization is clearly illustrated here: the answer is somewhat less clear.

For one, Mendocino's legacy is intricately interconnected to further social movement mobilization. Had county-level bans swept across California, it could have triggered a 'crisis of jurisdiction' challenging the legitimacy of higher scales of government, and potentially even forcing higher level legislation (Mulvaney, 2008, p. 153). While enough county-level bans were attempted in California (and even more were considered) to be symbolically threatening, many did not pass and the particular mode of resistance they inspired has definitely slowed. Similar to the Percy Schmeiser case, however, they nonetheless are inspirational to others in the widespread anti-biotechnology movement, and they are well circulated on anti-GM websites and lists of GMO-free zones.[9]

Despite this inspirational effect, the Mendocino action also had a potentially thwarting or redirecting impact on a movement that preceded it – Cal GE-Free. To a certain extent, it also had a stimulating effect, as AB 541 is itself a part of the legacy of Mendocino. AB 541 certainly responded to the symbolic crisis of the attempted bans. Given the difficulties Cal-GE Free had in securing AB541, it seems unlikely that a California-wide ban on genetic engineering would have been possible even without the early backlash triggered by Mendocino. Nonetheless, the ongoing spotlight on GMOs and their risks has maintained salience for the public, no doubt facilitated by the ongoing attention to the issue that is the legacy of Mendocino. In 2012, this salience was deemed sufficient to attempt a statewide ballot on mandatory GM food labeling. Over half a million signatures were successfully collected to qualify the measure for the state's November 2012 ballot (Burke, 2012). While it would be a phenomenal feat for such an initiative to win, its existence is a clear threat to the US pro-biotechnology paradigm, as a very practical crisis would be caused by food companies forced to differently label for the Californian market. Even if the measure does not pass, its symbolic weight puts US regulatory agencies under considerable pressure for regulatory response.

All these factors suggest strongly that any narrower reading of the 'consequences' of the Mendocino initiative – for example, in pursuit of causal clarity – would completely fail to address the broader question of social change. McCann's legal mobilization framework thus provides reprieve from some of the weaknesses of law and social movements literature, but at an undeniable cost of generalizability. I would argue this is a necessary cost. Are legal successes a step towards changing the paradigm of agricultural biotechnology, or are they merely momentary flashes of resistance? Mendocino reveals that unraveling the answer to this is highly complex,

and may even suggest how McCann's legacy stage could benefit from further differentiation – for example, into a four-pronged investigation of a movement's explicit impact (e.g. the legal outcome); movement impact (e.g. on the original movement itself or on other movements formation and direction); cultural impact (e.g. on public awareness and support for the issue); and its regressive impact (e.g. backlash in the preceding three arenas).

While it is clear that the biotechnology paradigm has not shifted at this point, Mendocino's mobilization represents one successful battle in a broader anti-biotechnology struggle, with an associated (but less easy to determine) further success in the number of people it managed to sensitize to the issue. The cumulative effect of such actions will have a different legacy than each on its own, of course, and Mendocino belongs in the context of legal mobilization over labeling rBST in milk, environmental assessments of genetically modified alfalfa, and contamination by genetically modified beets, among other forms of anti-biotechnology protest activities. Thus the sheer number of mobilizations (and the resulting number of sensitized people) may become a factor worthy of study in itself, particularly in conjunction with important contextual factors, such as contamination incidents. It is clear here that Mendocino adds further support to Schurman and Munro's (2003) statement that the wide range of anti-biotechnology activism 'has turned what until recently looked like a done deal in the trajectory of agricultural industrialization… into a moment of uncertainty and openness' (2003, p. 112). If some might argue that Mendocino has not unequivocally changed the status of biotechnology in Mendocino, there can be little argument that it has unequivocally contributed to this uncertainty and openness.

Notes

1. Although genetic modification technically has a broader definition, the terms are generally used synonymously. I use GM in this article consistent with the most common usage. Where this article refers to others' perspectives or quotes, I am consistent with their usage.
2. Stated on condition of confidentiality.
3. Financial information is from Recipient Committee Campaign Statements, California 2001/02 Form 460, for 'Citizens Against Measure H. A Coalition of Farmers, Taxpayers and the CA Plant Health Association' and for the 'Campaign Committee for a GMO Free Mendocino'. Copies are with the author.
4. A map of California's county ordinances (pro- and anti-biotechnology ordinances, as well as counties with anti-GM 'activity') can be found on the University of California Division of Agriculture and Natural Resources Statewide Biotechnology Workgroup website, see Map of California Counties Ordinances <http://ucbiotech.org/resources/legislation/legislation.html>.
5. Confidential interview subject.
6. The California Farm Bureau Federation is a federation with input from 53 county farm bureaus. According to the Bureau, policy recommendations develop from the 'community and county Farm Bureau levels' (California Farm Bureau Federation, 2012), although many activists would consider it 'captured' by conventional industrial agriculture interests.
7. Senate Rules Committee. SB 1056. Office of Senate Floor Analyses. 25 August 2006.
8. An Act to Add Article 2.6 (Commencing With Section 52300) to Chapter 2 of Division 18 of the Food and Agricultural Code, Relating to Liability. Assembly Bill No. 541. Chapter 424. (2008) at 52305.
9. See < http://www.gmo-free-regions.org/> for GMO-free Europe, for example. Less comprehensive sites exist for other regions, such as GE-free BC: <http://www.gefreebc.org/gefree_tmpl.php?content=home>.

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