

THESIS

PEOPLE, PLACES, AND PERCEPTIONS: COMPLEXITY IN CITIZEN RESPONSES TO
HYDRAULIC FRACTURING IN NORTHERN COLORADO

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ABSTRACT

PEOPLE, PLACES, AND PERCEPTIONS: COMPLEXITY IN CITIZEN RESPONSES TO HYDRAULIC FRACTURING IN NORTHERN COLORADO

Between June of 2012 and November of 2013, five Northern Colorado communities passed citizen-initiated ballot measures limiting hydraulic fracturing. Though overtly this was about protecting health and safety, much of the opposition stemmed from the perception of a broken relationship between communities, governments, and corporations. This research constructs a case study of local opposition to hydraulic fracturing in Northern Colorado using a combination of in-depth interviews, surveys, participant observation, and document review. Through tracing convergences and divergences in organizational responses over time, this research examines how communities experiencing the same threat—hydraulic fracturing—ultimately interpreted both the threat and what was being threatened in new ways based on the discursive resources provided to them through their communities and networks. In contrast to characterizations of negative responses to the threat of extractive industries as one-dimensional “NIMBY-ism”, the results of this research emphasize the complexity of responses and the variations in how citizens interpret the circumstances surrounding threats, build relationships, and take action to protect their community.

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INTRODUCTION

We were four people in a small town on a shale [play] that is prized by one of the biggest industries in the world. So what do you do? How do you stop that?

Between June of 2012 and November of 2013, five Northern Colorado communities passed citizen-initiated ballot initiatives either banning or putting a temporary moratorium on hydraulic fracturing (commonly called “fracking”). Driven by frustration with both the oil and gas industry and state and local governments, citizens took their concerns to the public sphere, setting up educational events, speaking out at city council meetings, and going door-to-door to talk with their neighbors about their concerns to rally grassroots support at the ballot box.

Though the issue at stake was hydraulic fracturing, much of the opposition stemmed from the perception of a broken relationship between communities, governments, and corporations. Citizens were frustrated by the lack of information available about possible impacts of hydraulic fracturing on health and the environment, and worried about the weak regulatory framework that required little of operators. Many felt that large-scale environmental disasters, most recently the Deepwater Horizon oil spill, had already proven that industries could not be trusted to weigh environmental and social impacts on an equal plane with economic gains, and were wary of industry claims of safety. But when citizens brought their concerns before companies, state regulatory agencies, and local governments, they were frequently rebuffed and considered “hysterical”.

Motivated by these setbacks and by a perceived regulatory vacuum, these community members rallied together to create a dense network through which information and resources flowed freely. This thesis explores the network of local and extra-local organizations formed in response to the perceived failures of industry and government to understand the development of both cohesive and disparate responses to the threat of hydraulic fracturing in Northern Colorado.

Study Purpose and Significance

Between 2009 and 2010, production of natural gas from deep shale formations in the United States doubled, totaling 137.8 billion cubic meters in 2010 (EIA 2010). This trend of increasing natural gas production is expected to continue, with the Energy Information Administration (EIA) forecasting production totaling as much as 340 billion cubic meters yearly by 2035 (2010). This rapid increase in shale production is largely credited to the use of hydraulic fracturing to access reserves of shale gas more economically.

In Colorado, the increased profitability of oil and gas development through the use of hydraulic fracturing technology has dramatically increased drilling activity. In 2014, the Colorado Oil and Gas Conservation Commission (COGCC) reported over 52,000 wells operating in the state, more than double the amount in operation just a decade before (COGCC 2014). Many of these wells are located in more sparsely populated rural counties, but as the economic viability of the process has increased, drilling activity has begun encroaching upon more densely populated areas of the state.

With drilling activity increasing near homes and schools, conflicts have emerged between oil and gas companies and the nearby citizens who feel disempowered and even misled by the lack of clear, unbiased information regarding the impacts of the process on communities. Between November of 2001 and June of 2013, citizens in Colorado filed over 2400 complaints with the COGCC regarding issues of water quality, spills, air quality, noise, etc. (Opsal and Shelley 2014). Many of these complaints were filed because of negative environmental impacts, but residents frequently linked these environmental concerns to negative health impacts (Opsal and Shelley 2014). For example, citizens associated poor air quality and strong odors to the exacerbation of respiratory illnesses (Opsal and Shelley 2014).

While anecdotal evidence of impacts is very prevalent, academic research on the impacts of hydraulic fracturing has lagged far behind. In recent years, some studies have begun to suggest links between hydraulic fracturing and decreased well water quality. In a recent study in the Proceedings of the National Academy of Sciences, an analysis of 60 private wells in Pennsylvania and New York found that methane concentrations were an average of 17 times higher in areas with active drilling, with isotopic data matching nearby shale gas wells (Osborn et al. 2011). However, in June of 2015, the US Environmental Protection Agency (EPA) released a draft of their study on hydraulic fracturing and water quality, which suggested that, though hydraulic fracturing has caused water contamination in some instances, it does not cause widespread, systemic water pollution (US EPA 2015). Though many industry advocates lauded this study, community advocates generally rejected the study, criticizing the lack of data. For example, the EPA was only able to review data on chemical spills for two states, and frequently relied on FracFocus, a website that gathers self-reported data from oil and gas companies (US EPA 2015).

Other studies have focused on impacts on air quality. In Colorado, a study conducted by the Colorado Department of Public Health and Environment, Air Pollution Control Division (2012), found that:

Concentrations of likely oil and gas related compounds...were found to be slightly higher at Erie sites than in downtown Denver, but much lower than in Platteville where greater oil and gas activity is taking place. Similarly, methane levels at Erie sites...were higher than in Denver, and lower than in Platteville.

These findings, which correlate higher methane and other related compounds in locations with low populations and high drilling activity, are cause for citizen concern; however, industry groups have attempted to discredit many of these studies, instead pointing to their own studies, which suggest no detrimental impact. In light of both competing data and competing

interpretations of the validity of data, conclusive and comprehensive information regarding the impacts of hydraulic fracturing on individuals, communities, and ecosystems remains elusive.

In addition to a lack of scientific data confirming or disproving environmental and health impacts, many communities are experiencing a perceived lack of regulatory oversight. At the federal level, hydraulic fracturing is currently exempt from nearly half of federal environmental regulations, including the Clean Air and Clean Water Acts (Davis 2012). This has left regulation and oversight to be executed by individual states, which are often perceived as biased towards industry because of possible economic benefits to the state from oil and gas activity.

These perceived breakdowns in government oversight have, at times, led to significant citizen pushback against the introduction of hydraulic fracturing in their community. Specifically in Northern Colorado, five communities passed citizen-introduced ballot measures banning or temporarily limiting hydraulic fracturing within their boundaries over the course of a year and a half. Despite massive donations (totaling as much as \$500,000 in one community) to oppose the initiatives (Rochat 2012), local community groups were successful, in part, because of the strong network of local and extra-local organizations sharing information and resources to collectively oppose hydraulic fracturing.

Elated with their success and with a coalition already in place to focus on strategies for the state level, it appeared the Northern Colorado organizations could be poised to ride their momentum to a victory at the state level. But organizational networks began weakening after local elections. The statewide coalition of organizations splintered, and a second coalition was born. Where there had once been a united front, now two different coalitions presented two different ballot initiatives to amend the state constitution in 2014.

The rapid development of unified dissent and subsequent fragmentation of responses introduces important questions about how communities organize their responses to perceived environmental threats. This thesis explores these trajectories to understand how communities experiencing the same threat—hydraulic fracturing—ultimately interpreted both the threat and what was being threatened in new ways based on the discursive resources provided to them through their communities and networks.

Background and Context

In order to understand these trajectories and the rapid acceleration of mobilization in Northern Colorado overall, it is important to understand the context that shaped both citizens' perceptions of the threat posed by hydraulic fracturing, and their responses to these threats. The following paragraphs outline the basic process of hydraulic fracturing, and the current regulatory framework for hydraulic fracking both nationally and in the state of Colorado.

Hydraulic Fracturing

Hydraulic fracturing is a process used to release previously unavailable reserves of natural gas by injecting a mixture (composed of sand, small amounts of chemicals, and more than one million gallons of water) at high pressure down and then horizontally into wells to break apart rock formations (Sjolander et al. 2011). While vertical hydraulic fracturing has been in use since the 1940s, the current method for hydraulic fracturing, which utilizes horizontal drilling techniques adapted from deep water drilling in addition to traditional vertical drilling techniques, is more recent than the 1980s (US EPA 2014).

In ideal conditions, an estimated 80-85% of the approximately 1-5 million gallons of frack fluid used each time a well is fracked returns to the surface as contaminated wastewater, also called “produced water” (US EPA 2014). This produced water is then disposed of in one of

a variety of ways, including reinjection into an old well for storage, treatment and release, or recycling for use in future wells (US EPA 2014).

Hydraulic fracturing has made accessing harder-to-reach, more “unconventional” sources of gas and oil more economically viable. This, coupled with the fact that natural gas releases less carbon dioxide than coal, has made natural gas more attractive for many states and corporations. However, many citizens in states including Pennsylvania, New York, Texas, and Colorado have opposed the introduction of hydraulic fracturing into their communities because of uncertainty regarding the environmental and health impacts of the process.

Little empirical research is currently available isolating the effects of this process. Corporations and some government entities assert that this process is safe. Chemicals used in the “frack fluid” pumped into wells are compared to household cleaners in corporate and government publications (COGCC 2011). However, produced water and the chemicals utilized in it are a significant concern for individuals who worry that air, drinking water wells, and/or reservoirs will be contaminated (Network 2011a, Rahm 2011). Though there are numerous anecdotal cases of water wells near drilling sites being contaminated in Colorado alone (Opsal and Shelley 2014), there has been difficulty in directly attributing the damage to hydraulic fracturing; companies have consistently attributed well failures to inadequate maintenance or normal methane migration. Beyond environmental impacts, possible impacts on communities include increased traffic, road degradation, noise, and seismic activity (Network 2011b), as well as increased crime.

National Regulatory Context

There is very little national policy regarding hydraulic fracturing; control over regulation is mostly located at the state level. State-level regulations are lauded by both state governments

and corporations as more effective, efficient, and economically beneficial for the state as a whole and their company (Davis and Hoffer 2012). States have stepped into this regulatory role in a variety of different ways. Individual states have created regulations that mandate setbacks to increase distance between well pads, homes, and other structures, mandate the disclosure of all frack fluid ingredients, regulate air quality, and/or mandate environmental restoration post-drilling (Davis 2012). However, the number of regulations adopted, and their stringency, varies greatly between states (Davis 2012).

State Regulatory Context

In Colorado, hydraulic fracturing and other methods of oil and gas extraction fall under the jurisdiction of the Colorado Oil & Gas Commission, or COGCC. The mission of the COGCC is to “foster the responsible development of Colorado's oil and gas natural resources”. Though their mission goes on to outline that this includes development “in a manner consistent with the protection of public health, safety and welfare”, and “the prevention and mitigation of adverse environmental impacts”, the charge of the COGCC to develop resources and protect mineral rights has led some to question whether their oversight is an example of “the fox guarding the henhouse” (Opsal and Shelley 2014).

According to Davis, Colorado has a more robust body of regulations regarding hydraulic fracturing than some other states like Texas (2012). Colorado is one of only two states that requires notifying landowners when fracking is about to occur, and is the only state that requires notifying residents as well as landowners (McFeeley 2012). In addition, Colorado is currently the only state that has enacted controls on methane emissions, requiring that oil and gas companies capture 95% of methane and volatile organic compound (VOC) emissions (Finley 2014). The state of Colorado also requires full disclosure after fracking occurs of the additives

utilized in frack fluid, as well as their maximum concentrations (McFeeley 2012). However, disclosure of “trade secrets”, or portions of the frack fluid that provide a competitive advantage, is required only to health professionals in the case of medical emergencies, and there is no restriction on what can be claimed as a trade secret (McFeeley 2012).

The COGCC has made recent changes in attempt to address some of the concerns brought forth by citizen stakeholders. Since 2011, the COGCC has updated their rules in regards to setbacks, emissions, chemical disclosure, and penalties for violations.

Table 1.1 Updated hydraulic fracturing regulations (COGCC 2015)

Type of Regulation	Previous Regulation	Current Regulation	Year Updated
Setback	250 ft setback from houses and offices	500 ft setback from houses and offices; 1000 ft setback from high occupancy buildings	2014
Chemical Disclosure	N/A	Publish concentrations of chemicals on FracFocus.org; exception for trade secrets	2011
Environmental Penalties	\$1,000 maximum per day, \$10,000 cap	\$15,000 per day	2015
Emissions	N/A	Devices to capture 95% of VOCs and methane emissions	2014

For many citizens, these changes meant little without changes to the framework of regulatory oversight. The COGCC employs about 23 inspectors to monitor over 50,000 operational and abandoned wells across the state. This makes it nearly impossible for inspectors to routinely provide inspections to all operating wells, leaving much of the responsibility for operating responsibly up to the drilling operators themselves.

Many citizens also do not trust the COGCC to fairly mediate disputes between citizens and oil and gas companies (Opsal and Shelley 2014). In their research, Opsal and Shelley found that complaint reports from the COGCC often misrepresented or minimized the complaints of citizens, concluding that “notably, the state responses they described rarely stopped or fixed the

problems they experienced and, instead, relayed a consistent message: oil and gas activity is not harmful and you are not an environmental victim” (2014:14).

Municipal Regulatory Context

Oil and gas development has been primarily under the purview of the COGCC and the state, leaving local governments with little power and no legal precedent for enacting local regulations. In 1992 the Colorado Supreme Court ruled against local regulation of oil and gas drilling, deciding that voters could not enact a local ban on oil and gas development because it conflicts with state law that ensures the "efficient development" of oil and gas resources (Voss v. Lundvall Bros.). At the time, the court ruled that local regulations were acceptable as long as did not conflict with state law (Voss v. Lundvall Bros 1992).

Citizen Response to Regulatory Context

This court ruling has not prevented citizens from attempting to regulate hydraulic fracturing at the local level. Though Colorado has stricter regulations for hydraulic fracturing than other states like Texas (Davis 2012), citizens in many Colorado communities have attempted to exert even more municipal control over the regulation of hydraulic fracturing within their boundaries. Since 2011, two local governments in Colorado adopted new regulations or moratoria of understanding between the community and oil and gas companies. The community that enacted new regulations was sued by the COGCC, while the regulations developed with oil and gas operators were allowed to stand.

Unhappy with the level of protection and the responsiveness of the current regulatory framework, citizens have organized against the process across Colorado. Between 2012 and 2014, five cities passed five citizen ballot initiatives banning or placing a moratorium of up to five years on the process, and in 2014, two different coalitions of organizations opposing

fracking introduced state ballot initiatives, though neither initiative made it to the ballot. This introduces an interesting case study not only because of the rapid acceleration and organization of dissent, but also because of the variability in the responses and strategies of dissenters.

Research Significance

In order to understand both the similarities and the variability in responses to hydraulic fracking, I draw upon a wide base of social science research, including work on place attachment, community, and social movements. I combine this with a focus on networks and the discursive resources available within them to understand how citizens and organizations construct their responses to the perceived threat of hydraulic fracturing. While some of these concepts have been woven together previously, no comprehensive case study of their relationships has been developed. Social movement scholars have considered the role of place in mobilization (Gieryn 2000; Norton and Hannon 1997; Stedman 2002), and the role of political opportunities in encouraging or constraining specific types of political actions (Kadivar 2013; Noy 2009), but attachment to place and community ideology have been only weakly linked to mobilization and strategies for creating change.

In addition, network studies have been utilized by social movement scholars to understand how resources, information, and ideas flow between individuals and organizations (Saunders 2007); social network scholars have also focused on how networks influence various social movement outcomes, including generation of collective action (Crossly and Ibrahim 2012) and the diffusion of protest tactics (Wang and Soule 2012). Very few, however, have explored how networks influence processes of perceiving, interpreting, and acting in protection of places.

Finally, this research presents an opportunity to add depth to the understanding of community responses to hydraulic fracturing in Northern Colorado, where both this process and

the resistance to it is relatively new. This thesis provides an early case study of a network of organizations opposing fracking in the unique regulatory context of Colorado.

Research Questions

This thesis seeks to understand what structures community responses to hydraulic fracturing through the following research question:

1. How do communities in Northern Colorado respond to the threat of hydraulic fracturing, and how are these responses mediated by government action or inaction? And, more specifically:
 1. How do responses across communities and organizations coincide?
 2. How do responses across communities and organizations diverge?

The following chapter reviews existing research on responses to environmental threats through the lens of place attachment, social movements, and networks.

LITERATURE REVIEW

The academic literature underpinning my research is broad, crossing over subfields of sociology and other social sciences. In this chapter, I begin by briefly outlining definitions of place, understanding how academic disciplines have characterized relationships to place, and exploring the discursive tools made available by relationships to place. I then connect place literature with social movement literature, drawing upon studies that emphasize place in mobilization. Then, I further explore social movement literature to understand the discursive practices—called frames in this body of literature—that social movements use to recruit and mobilize individuals for their cause. Next, I examine how social movement organizations interpret the political arena in which they are working, and how they subsequently use discursive tools to motivate specific types of actions that reflect their specific perceptions. I bring my tour of the literature to a close by discussing the discursive practices used to frame a place as a site for collective action.

Threads connect these ideas together, but no prior research has comprehensively considered these factors together. Many research studies have examined how place influences who joins social movements, and how physical space facilitates or constrains specific types of political action. Others have explored how perceptions of political opportunities impact the type of political action chosen, and the networks within which those actions are taken. Very few, however, have explored how place plays a role in the process of perceiving, interpreting, and acting in protection of places, or how networks influence these processes.

Understanding Place

Could it be that place just does not matter anymore? I think it does. In spite of (and perhaps because of) the jet, the 'net, and the fast-food outlet, place persists as

a constituent element of social life and historical change (Friedland & Boden 1994).

The role of place in society has been studied across disciplines, including in geography, human dimensions of natural resources, psychology, environmental psychology, and sociology. Although disciplinary silos have often prevented cross-pollination and/or collaboration in fleshing out both the meaning of the word and its importance (Trentelman 2009), similar veins exist across conceptualizations of place: namely, spaces become places when interaction or knowledge imbues them with social or spiritual meaning (Tuan 1977).

Sociology has been accused of overlooking place as just a setting, backdrop, stage, or context for another phenomenon of sociological interest, and of using place incorrectly as a proxy for demographic, structural, economic, or behavior variables (Gieryn 2000:466). However, sociological definitions still contain the same components of injecting meaning into spaces. For example, Gieryn (2000) defined place as space filled up by people, practices, objects, and representations that has a meaning and significance all its own. According to Gieryn,

Places are made as people ascribe qualities to the material and social stuff gathered there: ours or theirs; safe or dangerous; public or private; unfamiliar or known; rich or poor; Black or White; beautiful or ugly; new or old; accessible or not (2000:472).

All these definitions leave the boundaries of what constitutes a place up to the individual. In these conceptions, a place can be a particular location in a forest or park, a particular building or restaurant, a house, a community, or even a city.

Connections between People and Places

Explorations of place across different disciplines have birthed diverse, but often overlapping, understandings of the ways that humans relate to place physically and emotionally. The way that individuals relate to places has been conceptualized as place attachment (Altman and Low 1992), place identity (Proshansky, Fabian, and Kaminoff 1983), community attachment

(Kasarda and Janowitz 1974), and sense of place (Hummon, 1992), among others. These terms are often combined or conflated, generating confusion (Hernández et al. 2007; Hidalgo and Hernandez 2001). For the purpose of this research, I focus on the relationship between place attachment and sense of place.

Defining Place Attachment

Definitions for place attachment abound, with most emphasizing an emotional bond to a place (Hummon 1992) that comes about through experiences, and through developing cultural meanings with and for a place. However, place attachment is not just about spiritual or cultural experiences; it can refer to “mythical places that a person never experiences, or it can apply to land ownership and citizenship that symbolically encode sociopolitical as well as experiential meanings” (Low 1992:166). According to Low, the most important aspect is a symbolic relationship, not an emotional one, that can “evoke a culturally valued experience, but may just as well derive meaning from other sociopolitical, historical, and cultural sources” (Low 1992:166).

Some definitions include not only an existing bond with a place, but the expectation of a future bond and future interactions with a place. Hernandez et al. (2007) define place attachment as the relationship between people and places that includes a desire to maintain a close relationship with the place (Hidalgo and Hernandez 2001). Other definitions combine this need for continuity with a perception of distinctiveness of a place. For example, Milligan defines place attachment as “an emotional bonding to a site that decreases the perceived substitutability of other sites for the one in question” (1998:6). She breaks this attachment down into two components: the interactional past one shares with a place and interactional potential one sees with the place (Milligan 1998).

Operationalization Issues in Place and Place Attachment Research

Definitions of place and place attachment often do not specify the boundaries of the space to which one attaches meaning or becomes connected, leaving room for multiple types and levels of attachments, but also muddying the methodological waters of studying place attachment (Hernández et al. 2007; Hidalgo and Hernandez 2001). Though Altman and Low emphasized that place attachment could be formed with places large and small (1992), in practice research has often studied attachment at the neighborhood level (Hidalgo and Hernandez 2001), thus narrowing our understanding of how people attach to places.

Ambiguity over the boundaries of place attachment has also led to confusion over the differences between relationships to place and relationships to community. Community attachment has generally been used to refer to the connectivity between individuals and the social aspects of particular places, but community and place attachment “appear similar enough that social science writers have sometimes moved back and forth between them without noting the difference” (Trentelman 2009:199). Ultimately, place scholars see communities as one way to bound places, where community sociologists see attachment as one piece of a social dynamic (Trentelman 2009).

The focus of community sociologists on the social aspects of place touches upon another important and unresolved question within place research—to what aspects of places are people attached? Often definitions specifically reference place attachment as an emotional bond, but in operationalizing this bond some have focused on the social aspects of place, while others have focused on the physical or natural dimensions of place. Though Hidalgo and Hernandez (2001) attempted to compare these two types of attachment, there has been little integration in studying the sources of attachments.

Finally, approaches to understanding place attachment have largely relied on static measures of attachment rather than on understanding the processes of place attachment and how they change over time (Devine-Wright 2014). This assumes that place attachment is achieved rather than negotiated. One exception is Hay, who considered multiple pathways to attachment across life stages (Hay 1998). However, even this understanding assumes that deep attachment is something that is achieved, albeit through different pathways and over periods of time.

Sense of Place

Sense of place is a slightly more complex rendering of the relationship between people and places. According to Hay (1998), sense of place breaks away from place attachment by considering the *context* of bond creation, and by offering multiple understandings of feelings towards place.

Sense of place has frequently been conceptualized as the intersection of place attachment, place identity, and place dependence. According to Basso,

fueled by sentiments of inclusion, belonging, and connectedness to the past, sense of place roots individuals in the social and cultural soils from which they have sprung together, holding them there in the grip of a shared identity, a localized version of selfhood (1996:85).

Though this emphasizes historical or ancestral connections to place, other scholars have used sense of place to create more nuanced understandings of the components of place attachment. For example, Cross (2001b) breaks sense of place into two different aspects: relationship to place and community attachment, which emphasize the *type* of bond we have with a place and *how strong* that bond is respectively.

Relationship	Type of Bond	Process
Biographical (9)	historical and familial	being born in and living in a place, develops over time
Spiritual	emotional, intangible	feeling a sense of belonging, simply felt rather than created
Ideological	moral and ethical	living according moral guidelines for human responsibility to place, guidelines may be religious or secular
Narrative (9)	mythical	learning about a place through stories, including: creation myths, family histories, political accounts, and fictional accounts
Commodified	cognitive (based on choice and desirability)	choosing a place based a list of desirable traits and lifestyle preferences, comparison of actual places with ideal
Dependent (9)	material	constrained by lack of choice, dependency on another person or economic opportunity

Figure 2.1 Six types of relationships to place (Cross 2001b)

These types of bonds range from biographical, which emphasizes personal history, to spiritual, which emphasizes emotional connection, or even commodified, which emphasizes cost-benefit calculations of amenities available (Cross 2001b).

In Cross' (2001b) discussion of sense of place, relationship to place intersects with community attachment, which describes how strongly connected one feels to the community, how deeply involved one is within that community, and how integrally one involves that community in future plans. This attachment can range from cohesive rootedness, where a person feels invested in only one community, to uncommitted placelessness, where individuals feel little to no connection to any specific places (Cross 2001b).

TABLE 2 Revised Sense of Place Typology (15)

SENSE OF PLACE	Satisfaction	Home as Insidedness	Local Identity	Type of Attachment	Future Desires
Rootedness Cohesive	high	here (physical, spiritual, emotional)	strong	biographical spiritual ideological	continued residence
Rootedness Divided	variable	here and there (physical, spiritual, emotional)	split	biographical spiritual dependent	variable
Place Alienation	low	there (physical, spiritual, emotional)	weak	dependent	desire to leave, but unable
Relativity	variable	anywhere	moderate	commodified (biographical) (dependent)	to live in ideal place, wherever that may be
Uncommitted Placelessness	(moderate)	anywhere/ nowhere	weak	none	no specific expectations of place

Figure 2.2 Revised sense of place typology connecting sense of place and community attachment.

Though this conceptualization allows for a more nuanced understanding of the different types and strengths of attachments between people and places and encompasses more social aspects of place attachment, it still largely supports an “intra-psychic” understanding of place attachment rather than emphasizing the social practices and processes of attachment.

Relationships to Place and Discursive Practices

The discursive perspective seeks to understand different types and strengths of attachments as both linguistically constructed and as sources of linguistic resources (Di Masso et. al. 2014). Rather than thinking about place attachment as a relationship or feeling, the discursive perspective sees place attachment as the social and linguistic practices that individuals utilize in social settings “through which place meanings and associated person-place relations are created, reproduced, and contested” (2014:82).

The discursive perspective of place attachment moves beyond the relationship itself to understanding the processes that predate and stem from an attachment. Discourse and discursive

practices are important both for developing an attachment, and for affording the attachee with linguistic tools to talk about and justify their attachment. According to Di Masso et. al., our linguistic claims to attachment are distinctly social and carry “consequences for reproducing or challenging the socio-political order” (2014:81). How we individually become attached to place is tied to our cultural, sociopolitical, and interactional contexts, and the way we talk about our attachment affects the way we “jointly warrant, contest, and transform human-environment relationships” (Di Masso et al. 2014:82), affects how we build and protect places and boundaries, and affects how we define what does and does not belong in a place.

Discursive practices and resources are also important at the community or meso-level. According to Maines and Bridger, communities cannot exist without narratives (1992:366), and “to remove stories from communities thus is to obliterate communities and their character” (1992:367).

Meso-level representations and meanings are important in structuring an individual’s relationship to place. These constructions, known as community ideology within community sociology, constitute “a system of belief that uses conceptions of community to describe, evaluate, and explain social reality, and that does so in such a manner so as to motivate commitment to community” (Hummon 1990:38). Like communities themselves, these ideologies are emergent collective representations that are the product of every day life.

These shared beliefs about community structure individual relationships to place by “framing the qualities of community life within a symbolic landscape of virtues and vices” (Hummon 1990:120). This provides common narratives to use in explaining your attachment to place and ties certain characteristics of a community to morality. Holding up one type of

community as the “source of the good life” requires relegating others to inferior statuses (Hummon 1990:121).

This connection between community and morality generates both commitment and action. Defining a place as part of the “good life” bonds you with that place and inspires commitment to upholding and preserving those characteristics that make it “good”. The community narratives created about why the community exemplifies the “good life” affects how community members interpret or assess situations or changes within the community (Hummon 1990). Community narratives can then be used to “reinforce and legitimate commitment to community precisely because they help make sentiment sensible”(Hummon 1990:121). In other words, the discursive resources provided through community narratives and community ideology provide justification for strong commitment and protective action.

According to Maines and Bridger, these stories about community and its characteristics and meaningfulness matter because they

... mobilize one form of action rather than another....Certain words and phrases [are] used and certain narratives [are] told for purposive action....'Community' thus is not only a form of social organization...but it also is a discursive representation (Maines and Bridger 1992:377).

Thus, community ideology generates real consequences through commitment. “Culturally reproduced images of places are...arbitrary but real in their consequences-for what people do to the land, as they make (or destroy) places” (Gieryn 2000:473).

The discursive perspective of place attachment has been infrequently applied in place attachment research, and neither the discursive perspective nor community ideology has been richly applied within social movement studies. It is clear that these both provide mechanisms to understand commitment to and action on behalf of places, but the nature of these mechanisms and how they react to different changes in places is still unclear.

Threats to Relationships to Place

Though relationships to place are often studied as achieved and not in process, researchers have documented the experiences of individuals who have their relationship to place broken or, in the words of Brown and Perkins (1992), disrupted. These studies have frequently focused on *complete* disruptions in the bonds between people and places—disruptions due to dislocation from one's communities after natural disasters (Chamlee-wright and Storr 2009; Erikson 1976), displacement due to urban renewal (Fullilove 2005), gentrification (Pérez 2004), or administrative action (Manzo, Kleit, and Couch 2008), as well as from relocation of a workplace (Milligan 2003). However, even *proposed* changes to a place or community that would not end in forced relocation can be experienced as threats or disruptions to sense of place (Milligan 1998).

According to Milligan, changes are categorized as threats to place if they threaten the “spatial continuity” of a place, which allows individuals to coherently organize past experiences of a place with the future potential for similar experiences 11/6/2015 10:18:00 AM. Changes that influence the way we expect to interact with space in the future can thus be categorized as a threat to one's current relationship to it.

This need for continuity within place attachment has often been connected to the negative responses to changes to place (Fried 2000; Fullilove 2005). However, place attachment does not unilaterally impact the perception of threats, and strong bonds and deep relationships do not preclude embracing change. “Whether place attachment necessarily leads to negative evaluations of place change is contingent upon the form and intensity of the attachment, as well as the interpretation of change” (Devine-Wright 2009:434).

Both relationships to place and place attachment can impact the way that individuals perceive proposed changes to place. Cross examined how specific relationships to place influence what individuals feel needs to be protected most, and thus which threats are perceived to be the most grave (2001a).

Relationship	Value of Place	Potential Threat	Potential Loss
<i>Biographical</i>	home, personal history, and identity	increased governmental regulations	control over one's property
	community identity	uncontrolled growth	change in the character of place
<i>Spiritual</i>	sense of belonging and connection to the earth and cosmos	uncontrolled growth destruction of natural places	loss of spiritual belonging and renewal
<i>Ideological</i>	moral ethical obligations to place valued for itself, beyond human uses and desires	growth and development not aligned with the value of stewardship	destruction of biological and human communities
<i>Commodified</i>	desirable amenities	uncontrolled growth	destruction of amenities
<i>Dependent</i>	employment	uncontrolled growth	loss of employment
	personal wealth	increased governmental regulations	loss of land, resources or restricted use

Figure 2.3 Relationships to place affect how individuals perceive changes to place.

According to this understanding of place attachment, someone with a biographical connection to place could have their relationship to place threatened by an increase in government regulations that changes the way they interact with place, but someone with an ideological relationship to place may see government regulations as an important response to the threat of destruction of the natural environment (Cross 2001a). This creates a more nuanced understanding of the responses to threats to place, but has been infrequently applied in

understanding social movements, which may bring together multiple types of relationships to place.

Environmental Disruptions to Relationships to Place

Projects that are perceived as threatening to the ecological health of a place can significantly disrupt relationships to place. Research has shown that even the possibility of significant environmental change can be considered an environmental disruption (Mihaylov and Perkins 2014:65).

Energy projects in particular, such as the installation of wind turbines or the introduction of wells for hydraulic fracturing, are frequently interpreted as threatening to residents' sense of place (Devine-Wright and Howes 2010; Devine-Wright 2009; Gross 2007). Devine-Wright (2009) outlined three things that residents may feel are threatened by the introduction of energy projects into a place: the distinctive character of a place (Brittan Jr 2001), the continuity of the experience of place over time (Devine-Wright 2009), and the self-efficacy of residents who expect to participate in decision-making regarding the future of their community (Gross 2007). Residents may feel that their relationship to place is particularly threatened when climate change is evoked as a reason for siting decisions. Ellis et. al. found that when residents interpreted that their place was being used as a 'sacrifice' to counteract climate change, they perceived the threat to their place to be greater (Ellis, Barry, and Robinson 2007). Ultimately, residents must evaluate whether the change is compatible with their definition of the place.

Place and Social Movements

Changes that are perceived to disrupt or threaten relationship to place can be highly effective in mobilizing individuals for collective action (Gieryn 2000; Norton and Hannon 1997; Stedman 2002). Disruptions/perceived threats, when experienced in conjunction with a high

level of political efficacy (defined here as degree to which citizens feel they can influence places (Wolsink 2000)), can lead to what Devine-Wright terms “place-protective actions” (2009).

Depending on sociopolitical context, these place-protective actions could include writing a letter to a local government official, signing a petition, or engaging in collective actions like protests. Social movement scholars have also studied how place physically encourages or constrains collective actions (Gould 1995; Zhao 1998)

Environmental Justice Movements

Environmental justice movements combine the protection of place from environmental hazards that threaten health and safety with a concern for social justice. The roots of environmental justice are usually traced to the citizen response to the decision to site a toxic waste facility in Warren County, North Carolina, a decision which was widely thought to be motivated, whether consciously or unconsciously, by race (Bullard 2000; McGurty 2000). Studies since have frequently found evidence of unequal siting of hazardous facilities in low income communities and communities of color (US GAO 1987; UCC 1987; Mohai and Bryant 1992), though the difficulty of separating race and class, as well as the struggle to prove intent in siting decisions, has led to some disagreement over the true extent of environmental injustice.

Bullard qualifies environmental justice movements as focused on preventing environmental threats and addressing unequal distribution of environmental hazards (2005). His framework:

1. Incorporates principles that all individuals have a right to be protected from environmental degradation.
2. Adopts the public health model of prevention as the preferred strategy: it focuses on eliminating a threat before harm occurs.

3. Rests on the precautionary principle for protecting workers, communities, and ecosystems.
4. Shifts the burden of proof to polluters and dischargers who do harm, who discriminate, or who do not give equal protection to racial and ethnic minorities.
5. Redresses disproportionate impact by targeting action and resources.

Bullard's framework focuses largely on distributional justice, or equity in the distribution of environmental hazards and benefits, which emphasizes the rights of citizens to be protected from harm. Another important aspect of environmental justice is procedural equity, which focuses on who is included in the decision-making regarding environmental hazards and benefits (Lake 1996). According to procedural justice, citizens have a right to decide how land is being used in their community (Lake 1996), an important consideration for those interested in protecting certain characteristics of their place.

Place and NIMBY Movements

Most communities who oppose threats to the natural environment of their place brought on by energy projects or other industrial activities are termed “NIMBY” or “not in my backyard” movements. This term is often used to negatively label communities; the implication of this term is that these communities are not against the technologies or processes themselves, but are selfishly excluding their place and/or community from necessary parts of a functioning post-industrial society, instead thrusting that burden upon another community that is less resistant (frequently lower income communities or communities of color). In other words, they are not opposed to the practice itself or the benefits that it gives to the larger society, just from the siting of it in their particular place.

Several authors have taken issue with this classification of NIMBY as inherently negative. Understanding the emotional, symbolic, and cultural dimensions of place attachment encourages a more nuanced understanding of why individuals engage in collective action to protect their “back yards” (Devine-Wright 2009;). According to Devine-Wright (2009), treating opposition as uninformed, irrational, and selfish—all claims commonly coupled with the NIMBY designation—rather than engaging with concerns only exacerbates the threat that residents feel. In these cases, government and industry may face less resistance by reconciling the changes to the place with the residents desire for distinctiveness and self-efficacy rather than assuming that more education is needed for residents to understand the risks and benefits of siting decisions (Devine-Wright 2009).

Social Movements and Networks

Some research has contended that the power of place to mobilize resides less in attachment or identity, and more in the social networks and social capital that exist within communities (Lewicka 2005). According to Lewicka, “it is not enough then to be fond of a place—a locally based social network is necessary to help convert emotion into action” (2005:392).

Networks are vital constructs within all social movements theories. They allow for the flow of information, discourse, manpower, and resources, both tangible and intangible. Both resource mobilization theories and identity-based orientations inherently rely on networks between individuals and/or organizations. Within resource mobilization, the networks that can be called upon for resources are vital to individuals and organizations. Within the identity-based school, Diani and Bison include networks as a vital source of identities, and one of three important components of social movement processes. Specifically, they distinguish social

movement processes as involving the exchange of resources through informal networks, the sharing of a network identity, and the use of conflict or competition to enact or resist social change (2004).

Dense vs. Sparse Networks	Network identity vs. organizational identity	Conflictual Action	Consensual Action
Dense informal networks	Strong network identity	Social Movement	Consensual Movement
Dense informal networks	Weak network identity	Conflict Coalition	Consensus Coalition
Sparse informal networks	Weak network identity	Conflict Organization	Consensus Organization

Figure 2.4 Diani and Bison’s (2004) key features of social movements.

In other words, social movement processes can be distinguished from other collective action processes (like coalitions or isolated organizations) by locating them at the intersection of dense exchanges in a network, collective identity within that network, and a conflictual orientation to a perceived social problem (Diani and Bison 2004).

Social Movement Networks and Collective Identity

Just like places and communities, social movements can foster emergent identities that inspire commitment among individuals. Social movements were initially studied almost exclusively as resource-based phenomena that succeeded or failed based on their ability to recognize and exploit political opportunities (McGurty 2000). More recently, identity-based analyses have injected individual meaning and experiences into the discussion of social movements, focusing on how movements are able to create and negotiate meaning with and for its participants (McGurty 2000).

Identity-based analyses of social movements examine personal identities, identities developed through organizations or movements more broadly, and the interactions between

them. Scholars that focus on the impacts of identity and meaning frequently utilize the term “collective identity” to encompass meanings developed between individuals and a social movement (whether through organizations, movements more broadly, etc.), conceptualized by Polletta and Jasper as

an individual’s cognitive, moral, and emotional connection with a broader community... a perception of shared status or relation, which may be imagined rather than experienced directly, and is distinct from personal identities, although it may form part of a personal identity (2001:285).

There is considerable conflict about the significance of collective identity within social movement networks. According to Diani and Bison, collective network identity is particularly important in precluding an instrumental orientation to network relationships, thus reducing conflict between individual organizations that would slow down progress towards a larger goal (2004). Saunders, however, suggests that collective identity in environmental movements usually does not bridge the boundaries created by organizations, and thus can cause division between groups in an organizational network (Saunders 2008).

Di Gregorio bridges the gap between these two extremes, creating a conception that provides space for collective network identity to exist in tandem with strong organizational identity (2012). Where previous theories suggested a collective identity constructed from shared values (Saunders 2007), Di Gregorio suggests that values and attributes must merely be compatible and *discourse* must be shared to bridge some boundaries while maintaining others (2012). For the purpose of this research, discourse is, broadly, the ways in which individuals give meaning to their lives and environments (Ruiz 2009). Thus, a shared discourse relies on the ability of individuals to share some measure of meaning regarding their identity as a social movement participant.

Social Movement Framing

Framing is one tool used to create meanings for individuals within social movements. Effective framing provides collective “discursive tools” to link individual meanings to larger movement meanings and goals, thus facilitating shared meaning and discourse between individuals and organizations in a social movement.

Social movement framing is an active process that uses language as a tool to create a specific view of reality that leads to mobilization and support (Benford and Snow 2000). Social movements use specific frames to talk about the problem, the solution, and the “correct” collective action (Benford and Snow 2000, McGurty 2000). Benford and Snow delineate these three imperatives of framing as diagnostic framing, prognostic framing, and motivational framing respectively (2000).

Master frames expand this process out to a more general, conceptual plane where the diagnostic, prognostic, and motivational frames can be interpreted and applied to a broad scope of actions (Benford and Snow 2000). Master frames act as an umbrella under which other frames can be negotiated and utilized for collective action.

Snow et. al. detailed the processes through which organizations link their frames with other individuals or organizations, termed frame alignment (1986). Under the broad umbrella of frame alignment are three ways in which organizations change their frames to further their movement: frame bridging, frame extension, or frame transformation (Snow et al. 1986). Frame bridging involves developing structural links between already complementary frames. Frame extension refers to enlarging the frame to encompass the frames of organizations with different, but ‘sympathetic’ frames. Frame transformation involves reframing to promote harmony

between movement frames and values, and the more conventional frames and values of the larger society (Snow et al. 1986).

Negotiating and aligning frames involves both strategy and contestation between different groups (Snow and Benford 2000, Di Gregorio 2012). Thus, frames cannot be treated as static “things” (Benford 1997), or as unilaterally accepted (Ketelaars, Walgrave, and Wouters 2014).

Studies of social movement framing have frequently focused on organizational framing, considering individuals as either consumers or opponents of these frames. Though frame alignment between participants has been treated as one-dimensional, there are *degrees* of alignment both across participants and across framings. For example, Ketelaars et al. found that protest participants were only somewhat aligned with the frames put forward in official movement materials, and in general, that protest participants are more aligned regarding the diagnosis than the prognosis or blame (2014).

Framing the Political Field

The building and contestation of frames does not happen in isolation. According to Noy, “frame battles and contests must be understood as part of a unified political field in which framing and counter-framing ...are mapped as part of one interlinked cultural arena” (2009:225). Resources and influence are important to shaping these “cultural arenas”, which both shape the framing of movements, and are themselves subject to framing by movement organizers.

Framing and Coalitions

The subjective nature of framing means that framing relies on the *perceptions* of political opportunities rather than on objective assessments. These perceptions influence the way that organizations approach social change, and with whom they partner to create it. For example,

Kadivar developed a typology of eight organizational “perception profiles” based on how optimistic organizations were of their opportunities in three areas: influencing state elites, influencing state institutions, and influencing through contentious collective action (2013). If activists subscribe to the “open windows” view of political opportunities—where state elites, institutions, and context are all ripe for collective action—they are likely to attempt to mobilize mass numbers of citizens to put pressure on elites and institutions (Kadivar 2013). By contrast, those who see each area as closed to their influence—called the counter-hegemonic model—are likely to focus on building awareness and connections at the local level to be ready for when opportunities arise (Kadivar 2013).

Model	Elites	Institutions	Contentious Collective Action
Open Windows	Open	Open	Open
Elite Insider	Open	Closed	Closed
Elite Outsider	Open	Closed	Open
Political Negotiation	Open	Open	Closed
Political Institution	Closed	Open	Closed
Political Activist	Closed	Open	Open
Radical	Closed	Closed	Open
Counter Hegemonic	Closed	Closed	Closed

Figure 2.5 Kadivar’s (2013) typology of “perception profiles” of social movement organizations.

According to Kadivar (2013),

actors who perceive and respond to their political environment in similar ways are more likely to generate similar strategies (Jasper 2012; Maney et al. 2012) and tactics (Wang and Soule 2012), increasing the chances of cooperating on shared projects.

Though this research combines important aspects of framing and social movement coalitions, it does not directly address networks, and excludes issues of place in both framing and coalition creation.

Framing Places

In addition to framing opportunities, social movement actors also frame *places* to characterize what they are trying to protect or change. According to Martin, place-framing is a process that involves invoking characteristics of place that are worth protecting, and motivating individuals to take action based on those characteristics (2003).

One part of this process involves outlining broadly, “what belongs here, what fits in the place, [and] what makes it unique” (Mihaylov and Perkins 2014:65). By emphasizing specific aspects of this definition that reinforce distinctiveness and emphasize the boundary between what does and does not belong, organizations can thus frame a place as threatened and in need of protective action (Martin 2003). For example, Martin examined how neighborhood organizations connected place to motivational, diagnostic, and prognostic frames and “sought to subsume other social identities under a territorial identity in order to establish and maintain place-based collective-action agendas” (2003:746).

Like social movement framing broadly, place-framing is a contested process. Place-framing often veils conflicts over the construction of place in order to promote a simple definition of place and simple call to action. Sense of place and place attachment are both individual and group phenomena, and vary accordingly, and “places, like voices, are local and multiple”(Rodman 1992:643). Thus, those who use place as an important frame for a social movement must contend with different definitions of place and construct a frame that resonates with different types of sense of place. Though this research incorporates place and social movement framing, it fails to incorporate individual sense of place in its understanding of motivating action, and does not examine organizations that work together as they frame *different* places as sites for similar collective action

Conclusion

Though these literatures cross over at multiple points and fit together conceptually, little research has pulled all these pieces together and placed them on the same conceptual plane.

Comprehensive case studies are still needed to tease out the relationships between sense of place, place-protective actions, social movement networks, and place-specific discursive resources.

This thesis develops one such case study to relate these varied dimensions to one another.

METHODS

In this chapter, I present my research questions and outline my mixed-methods case study approach to exploring ties within and between Northern Colorado community groups organizing against fracking. I first discuss my methodological frameworks and my case selection, and introduce my research questions and role in the setting. I then outline the importance of each of my four data collection methods to answering these research questions, and review how I sampled for and collected each type of data. I then describe the process of analyzing this data for inductive theory building. Finally, I evaluate the limitations of my methodological approach.

Mixed-Methods Network Analysis

Network analysis transforms information on social ties into graphical representations in order to examine the shape, characteristics, and implications of relationships. Network analysis is predicated upon the idea that the networks of ties between individuals “exists not only as sets of cognitions...but also as structures of constraint and opportunity negotiated and reinforced between interacting individuals” (Kilduff and Tsai 2003:5). Networks are thus treated as real social structures that involve the intersection of “the structure of social relationships; the individual actors and their connections; and the meaning associated with the networks and their connections” (Fuhse and Muetzel 2011:1068).

Network analysis has historically been associated with the quantification of two of those three dimensions—structural characteristics and individual connections. However, qualitative methods have also been used to increase the capacity of network researchers to understand meaning (Bernardi 2011; Fuhse and Muetzel 2011), relationships (Bernardi 2011), and processes of inclusion and exclusion (Heath, Fuller, and Johnston 2009).

Qualitative and quantitative research can be used in tandem to exploit the strengths of each method (Ragin, Nagel, and White 2004) and develop a more holistic understanding of these three interconnected dimensions of networks (Fuhse and Muetzel 2011). Edwards argues that mixed-methods network analysis allows researchers to gather data on both the breadth and depth of ties, and embody both an outsider and insider role (2010). Ultimately, she states that:

Formal (quantitative) approaches remain valuable because they offer what qualitative approaches cannot: they are able to map and measure certain aspects of social relations in a systematic and precise fashion. However, qualitative approaches can also offer what quantitative approaches cannot: they can add an awareness of process, change, content and context (Edwards 2010:5)

Edwards (2010) goes on to outline three ways in which mixed-methods can be used in social network analysis: contextually, with one method informing the use of the other; concurrently, as two separate streams of data collection and analysis that can be triangulated; and analytically, as a way to combine qualitative data and analysis with quantitative analysis. This research utilizes all three of these elements. First, information from early interviews was used to construct network surveys. Second, data from interviews and surveys were collected and analyzed separately to take advantage of the insight each brings to the study. Finally, qualitative data from interviews was coded using a traditional qualitative approach, then coded again for transformation into network data that was mapped and analyzed quantitatively.

Case Study Research

Case study research employs in-depth data collection from multiple sources to gather information on a bounded system, setting, or social phenomenon (Creswell 2012; Feagin, Orum, and Sjoberg 1991). Because case studies focus on gathering both a breadth and depth of data, case studies are ideal for creating a holistic picture of complex processes (Feagin et al. 1991). Case study research does not attempt to separate between the phenomenon and its context (Yin

2009), instead emphasizing grounding data and analysis within setting and context to create a rich understanding of the case as a whole (Feagin et al. 1991).

Within network research, treating a network as a case study allows me to avoid creating artificial boundaries or suggesting that networks are stable entities rather than negotiated relationships with emergent properties (Heath et al. 2009). Considering the network as my unit of analysis allows me to look at the network in its entirety, understanding its shape, evolution, emergence, and influence on individual and organizational actions.

Case Selection

According to Marshall and Rossman, researchers should reflect on entry, availability of rich and varied data, opportunities to build rapport, and ethical considerations when choosing the setting of their project (2011:101). In addition to these criteria, case study research focusing on a single case “typically exploits opportunities to explore a significant phenomenon under rare or extreme circumstances” (Eisenhardt and Graebner 2007).

In Colorado, the rapid acceleration of community organization and action against hydraulic fracturing provided a window into the phenomenon of intra- and inter-community organization. The ability to watch organizations and networks as they begin, grow, and develop multiple campaigns aimed at multiple levels of government provides an excellent case for understanding networks as continually negotiated.

Case Description



Figure 3.1 Map of study area

Research was conducted in Colorado, focusing specifically on communities along or near the I-25 corridor between Colorado Springs and Fort Collins (referred to in this thesis as “Northern Colorado”). This boundary was not imposed upon the research at the beginning, but allowed to emerge over time through discussing organizational ties with respondents. Communities were considered part of the “case” if residents were concerned about the threat (real or perceived) of fracking in their area, and if a community organization existed that discussed or participated in action related to stopping or pausing fracking. Demographic information on the communities in this area is included in Appendix A. Overall, the communities in my case study represented a less diverse, more educated, and wealthier population than the Colorado average. Five of the seven communities in my case study had a significantly higher percentage of residents with a Bachelor’s degree or higher (see Appendix A). Only one community was significantly below the statewide median household income and median housing value (see Appendix A).

Research Questions

This thesis focused on gathering rich, nuanced data on relationships within the network. More specifically, this thesis explores the following research questions:

1. How do communities in Northern Colorado respond to the threat of hydraulic fracturing, and how are these responses mediated by government action or inaction? And, more specifically:
 1. How do responses across communities and organizations coincide?
 2. How do responses across communities and organizations diverge?

These questions evolved across my research as I learned more about the organizations in question and their relationships with each other.

Research Timeline

My interest in fracking and the community groups organizing against it began as part of an Environmental Justice graduate course in the spring of 2013. As part of this course, I completed two small research projects on different aspects of efforts to organize against fracking in five communities in Northern Colorado. This included completing fifteen interviews with six key members of five organizations, and completing one follow-up interview.

During the summer and fall of 2013, I attended two public events in two cities in an attempt to introduce myself to potential participants and become familiar with the population in question. During this time period, I also remained in contact with those interviewed prior, and discussed that I would be interested in conducting further interviews once I had received formal approval to begin my thesis research.

In October of 2013, I participated in a literature drop on behalf of a local organization to remind individuals to vote in order to assist with a ballot initiative, which was later passed. This was not used as an opportunity for data collection, but rather provided background on the organization and helped me gain visibility and trust. After gaining approval to begin my research in December of 2013, I began conducting interviews and attended some events to

collect data as a participant observer. In the spring of 2014, I attended planning and strategy meetings for statewide initiatives through another local organization, and in the summer of 2014, I participated in low-level volunteering tasks, including telephoning volunteers, for yet another organization for approximately two hours each week for one month. These were not used for data collection, but rather provided important contextual information to reconcile my data, which focused on leadership and inter-group relations, with the intra-group relationships and the opinions and goals of non-leadership group members.

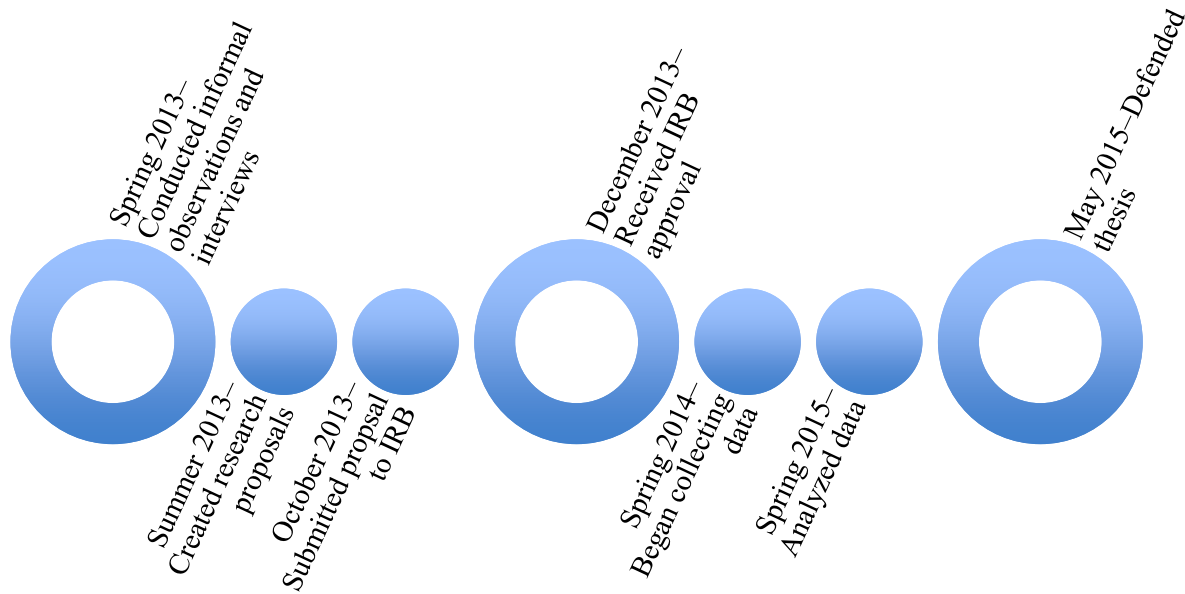


Figure 3.2 Timeline of research activities

Role in the Setting

Researchers involved in prolonged field research must establish their role in the community along a continuum from outsider observer to complete member (Adler 1987). Membership and “insider/outsider” status is never monolithic or immutable (Griffith 1998). At the beginning of my research, I was an outsider to organizational membership, but an insider concerning knowledge of and concerns about fracking, as well as an occasional volunteer for

multiple organizations. Ultimately, I would term my role as a “sympathetic outsider”. I emphasized that I desired my research, as well as my skills as a social science researcher, to be of assistance to the groups in question throughout the research process. I believe this also cemented my status as a “sympathetic outsider”.

This role played a key part in accessing this population, and became increasingly important as time went on. Many activists were hesitant to meet with unfamiliar individuals, and to give out information about group activities without complete confidence in my ability to keep information private and anonymous. Without prior knowledge of me, and confidence that I was a sympathetic participant, it is likely these avenues would have been closed off to me. Despite the rapport I was able to build, there was one participant who withdrew from the study, citing concern about how my research could benefit oil and gas companies.

During the course of qualitative research, individuals often move across social and conceptual boundaries of membership (Griffith 1998). As my research continued and political action at the state level intensified, my role as a volunteer in the movement began to shift from sympathetic outsider to peripheral member, which involves frequent interaction with members, but refraining from core membership activities (Adler and Adler 1987).

Researchers who are “insiders” often have a more intimate understanding of the experiences and narratives of specific groups (Griffith 1998). As someone who was a sympathetic outsider for nearly a year before becoming more of an insider, I have a deep understanding of the motives, experiences, and narratives of leaders and groups in this movement. I also believe that my insider status as someone who knew about fracking and believed that it was not good for communities, and as someone had assisted them (even in small ways) aided my efforts to gather relevant and interesting information. Participants did not feel

the need to educate me with statistics or convince me with narratives. They did not question my motives for asking certain questions, leaving space for fruitful conversations without conflict. As activities for the ballot initiatives declined, and my data analysis and writing intensified, my role again shifted back to sympathetic outsider.

Methods and Sampling

Primary Methods: In-depth Responsive Interviews

In-depth interviews utilize open-ended questions to gather rich, nuanced data on experiences (Rubin and Rubin 2012). Through encouraging a “guided conversation” on specific topics or experiences, in-depth interviews help respondents to reconstruct past events, explore questions of identity, and characterize ongoing processes (Rubin and Rubin 2012).

Responsive interviewing, a particular style of in-depth interviewing, involves treating interviewees as conversation partners rather than respondents or research subjects (Rubin and Rubin 2012). Responsive interviewing results in complex, detailed information and extensive information on the subtleties of processes and relationships (Rubin and Rubin 2012).

In this research, in-depth interviewing elicited comprehensive, multi-faceted information on the process of creating relationships within and between organizations. It allowed for unplanned exploration into unknown aspects of these processes and relationships, and of the network as a whole. It created a more balanced space that respected and valued the knowledge and experiences of the interviewee.

Visual methods and graphic elicitation

Within in-depth interviews, visual methods expand upon information gathered verbally through the creation and/or use of photographs, diagrams, or other visual objects (Bagnoli 2009). According to Prosser and Loxley, visual methods “encourage deeper and more effective

reflection on all things visual and visualisable” (2008:4). Graphic elicitation is a specific type of visual method that involves using diagrams (rather than photographs or other visual objects) to engage respondents in conversation (Prosser and Loxley 2008). Graphic elicitation encourages visual and spatial thinking, and can involve either researcher-generated or respondent-generated diagrams (Prosser and Loxley 2008).

Respondent-generated diagrams allow respondents to order their own thoughts, experiences, and relationships rather than submitting to a researcher-generated perspective (Bagnoli 2009). These diagrams can then be used for elicitation and elaboration during conversation. Interacting with diagrams can elicit more open conversation (Crilly, Blackwell, and Clarkson 2006; Prosser and Loxley 2008; Warren and Karner 2005), stimulate new avenues of conversation outside of research questions (Prosser and Loxley 2008), and simplify complex discussions of relationships and processes (Crilly et al. 2006; Prosser and Loxley 2008).

In this research, graphic elicitation was used sparingly to elicit diagrams of organizational networks from the respondent’s perspective. Network analysis is a distinctly visual method, and graphic elicitation encourages the researcher to relinquish the control of this visualization, even if for a short time, and allow respondents to think about their network visually. This is often a new way of thinking for participants, which can prevent the networks and their shapes being “taken for granted” and not fully explored by participants and/or researchers.

Primary Methods: Surveys

Surveys utilize a standardized schedule of questions to elicit self-reported data on behaviors or opinions (Neuman 2009). Surveys give researchers the opportunity to ask about many variables or relationships at once, and to gather a wide swath of data from a large population at one time (Neuman 2009). For these reasons, and because surveys are more easily

translated into numerical form for mathematical tests and analyses, survey research has been historically popular in network research (Edwards 2010).

In this research, surveys were used to more systematically explore existing networks. Where interviewees may forget specific ties in interviews, or only bring up ties corresponding to a certain type of activity, surveys prompt a more exhaustive list of ties.

Population and Sampling

Case studies render random sampling unproductive (Marshall 1996). There is no guarantee that a randomly selected person in a specific community, or even any one person in a specific group, would be knowledgeable about group decision-making. Thus, in this case study I employed targeted, purposive, and snowball sampling to gather a sample of 11 leaders of groups organizing against fracking in Northern Colorado. This sample represented at least one leader from nine local community organizations in Northern Colorado with mission and action focused on fracking. Ultimately, this sampling strategy focuses on sampling for analytical generalizability rather than population generalizability (Marshall 1996).

For this case study, I recruited the same participants for both in-depth interviews and surveys to provide data that could be most accurately compared and combined in analysis. Individuals sampled for in-depth interviewing were re-contacted one to five months later to complete surveys regarding network connections. Thus, my sampling strategy will be discussed first for solely my primary methods of interviewing and surveying.

The population

The population of interest in this research is groups organizing against fracking in Northern Colorado. “Groups organizing against fracking” includes 1) local community groups created to organize against fracking specifically; 2) local community groups not focused solely

or specifically on fracking; 3) groups that operate on a larger scale (i.e. regionally, nationally) to oppose fracking, whether specifically or as part of a larger mission; and 4) other groups that are part of coalitions working against hydraulic fracturing in Northern Colorado. The qualification for groups purposefully remained broad as to prevent imposing arbitrary boundaries on the network.

In most communities, one local community group was created to oppose fracking. However, one community had two groups opposing fracking, and one community had three separate groups. In some communities, residents have both created new organizations, and mobilized the volunteers and resources of existing organizations to oppose fracking.

Purposive, targeted sampling: Leaders of organizations

Watters and Biernacki discussed targeted sampling as the intersection between Glaser and Strauss' (1968) theoretical sampling, quota sampling, and Biernacki and Waldorf's (1981) chain referral sampling (1989:420). This method falls under the umbrella of purposive sampling, and involves creating detailed, theoretically-informed sampling frames, and recruiting adequate numbers from each sampling frame (Watters and Biernacki 1989). These sampling frames, and the strategies used to recruit from them, are subject to ongoing adjustment as new information becomes available (Watters and Biernacki 1981).

In this case study, a sampling frame was created for each community group involved in opposing fracking in Northern Colorado. This sampling frame identified "formal leaders" of the organization, or individuals involved in a formal steering committee or other leadership structure that makes key decisions and coordinates other volunteers. Most groups have a formal steering committee that makes distinguishing leaders from other volunteers very easy. Other groups have a single public face that also makes key decisions. There are no public lists that delineate the

leadership of these groups, and no formal terms or time limits for leadership. Thus, the sampling frame evolved as interviews were conducted to identify both more organizations for which sampling frames were created, and more leaders to add to existing sampling frames.

Leaders were chosen for the sample of interest for several reasons. First, leaders are the most involved in the organization's activities. Though the argument is made that the internet and social network revolution have caused community to be "lost", Rainie and Wellman suggest that the Internet and the mobile revolution have "liberated" social ties, resulting in "networked individualism" (2012). Thus, individuals, rather than being heavily involved in a few things, are often on the periphery of many activities and groups simultaneously. Voluntary organizations are therefore often primarily constructed of these overlapping periphery members, with a few core members that are responsible for a high proportion of decision-making, task allocation, and task completion. These individuals are the most knowledgeable about the inner-workings and decisions of the group, and in this case study, were often part of its inception, giving them insight into the group's initial processes and experiences.

To create the most robust body of data for case study creation, an attempt was made to sample at least one leader from each organization. Sampling decisions were influenced by information gathered in early interviews, where participants were asked to identify important sources of information and support. As I completed interviews, the leaders mentioned multiple times in one interview, or by multiple interviewees, were contacted first. When more than one leader of an organization existed, ones more frequently mentioned in past interviews were contacted first. Though I was interested in interviewing a diverse sample of leaders, sampling decisions were based on differences in organizational and/or coalitional membership rather than differences in age, gender, etc. Overall, the theoretical nature of the sampling frames

emphasized gathering insightful data from a few key participants rather than focusing on sampling equitably from all organizations.

Participant recruitment

Participants were recruited in an ongoing nature from December 2013 to October 2014. Initial participants were leaders with whom I had previous contact, and whom I had met in person at fracking-focused events. I had these individuals' personal contact information, and had received previous verbal or written consent to contact them for an interview for this project.

Potential participants received an email from me with an attached introductory cover letter detailing the purpose of the study, their rights as participants, and contact information for both the Institutional Review Board and myself if they had any questions (see Appendix B for copies of all recruitment materials). Follow up emails, or phone calls if requested, were used first to answer any questions, and then to schedule a time and place convenient for the participant to meet.

Snowball sampling and reverse snowball sampling

Snowball sampling utilizes respondents as “research assistants” to help gain access to other individuals like themselves (Erickson 1979). Similarly, reverse snowball sampling utilizes the participant as the research assistant, but adds an extra layer between potential participants and researchers, requiring that participants contact the researchers if they would like to take part.

Snowball sampling has become commonplace for accessing “hidden” or “inaccessible” populations such as those involved in illicit behaviors (Erickson 1979). Though leaders of groups in my population usually participate very publicly and very legally, the full population is not easily accessible from the outside. As mentioned previously, no comprehensive lists of leaders exist, and several leaders operate behind the scenes utilizing other leadership skills and

styles. Though concern has been voiced that snowball sampling biases research by relying on chains of referral that encourage homophily and bias in samples (Erikson 1979), in this case initial contacts were necessary to ensure that I was not biasing my own sample by interviewing only those that were easy to find.

In this case study, snowball and reverse snowball sampling also corresponded with my interest in social networks and networks as processes. Though data was not gathered on what referrals were made, “snowball sampling relies on and partakes in the dynamics of natural and organic social networks” (Noy 2008). Snowball sampling also corresponds with the dynamic quality of network processes and the knowledge and identities created through network interactions (Noy 2006).

After interviewing original participants, I asked them to assist me in contacting other leaders of their organization, or other leaders they worked with in coalitions. Participants were presented with two options. First, they could send an email to other leaders asking for consent to pass on that leaders’ contact information to me. If consent was given, I could contact that person as I had the initial respondents. Second, I could pass on a separate recruitment letter to the participants to be relayed to other individuals (see Appendix B for copies of recruitment materials). That letter had my contact information, and encouraged individuals to contact me to participate or ask any questions. I more frequently suggested the former rather than the latter to encourage participation across the wider population, not just by those who most interested or least busy. However, participants infrequently expressed interest in recruiting others to participate, citing a lack of time.

Referrals were made both within and outside of organizations. In some cases, I requested specific contacts from respondents based on my sampling frame. Overall, I completed 13

interviews with primary contacts, and two interviews with contacts gained through snowball sampling.

Secondary Methods: Participant Observation

Participant observation involves the researcher actively taking part in the lived experiences of the people under study (Becker and Geer 1957). This is accomplished through immersing oneself in the setting and using the senses to hear, see, and experience reality as participants do (Marshall and Rossman 2010).

For this research, participant observation was utilized in two ways. First, participant observation was used to add depth and dimension to my understanding of interactions and processes within and between local community groups (Lareau and Horvat 1999). It allowed me to better understand both the practical functioning and daily discourse of organizations. Observing individuals within their organizational context complemented interviews, adding an additional layer of confirmation of what participants share (Becker and Geer 1957).

Second, participant observation was used for building rapport. Though participants' familiarity with me, as well as my status as an insider or sympathetic outsider, increased access, there were still certain situations where individuals were hesitant to allow me to enter the scene as both a researcher and a participant. At certain points in the research, I was concerned that, if I did not participate as an individual only and not as a researcher, I would be shut out of the scene and lose the rapport I had previously built. Thus, some observations were completed purely for contextual background on the group, with no data being analyzed from those meetings or events.

Sampling for participant observation

The population for participant observation included all events and meetings held by one or multiple local community groups organizing against fracking. This includes intra-group

meetings, coalition or multi-group meetings, educational events organized for the public, etc. The qualification purposefully remained broad to encompass all possibilities for intra- or inter-group interaction. A full sampling frame of every event within these criteria was not possible; however, I tracked social media at least weekly to check for new events, and asked individuals both within local community groups and within the Sociology department at Colorado State University to notify me if they found out about new events related to hydraulic fracturing in Northern Colorado.

I largely relied on convenience sampling, which selects the most accessible cases, to guide at which meetings and events I would observe (Marshall 1996). For example, events in the evenings and those that were happening in my community were attended at a slightly higher frequency. However, some elements of purposive sampling, which selects cases based on their theoretical usefulness (Marshall 1996), were used. Throughout the research process, events were judged by ease of access, but also by their ability to enrich existing data, either through providing opportunities to build new connections to expand the reach of my study, or through assessing the theoretical contributions possible from interactions that could occur at that event or meeting. Thus, my sample includes educational events, press conferences, organizational meetings, and more in communities surrounding Fort Collins.

Secondary Methods: Ethnographic Content Review

According to Altheide (1987), ethnographic content analysis (ECA) is the reflexive analysis of documents or other forms of content that explores the communication of meaning. Documents and other forms of written or video content provide another, often more easily accessible source of rich data through which to explore cases.

Media accounts specifically provide a rich source of data on idealized representations in our culture (Warren and Karner 2005). For this research, brief reviews of promotional documents, websites, and videos provide rich data regarding the messages that organizations emphasize to the public. They were an important supplement for interviews, which ask participants to complete the difficult task of recalling past processes while avoiding coloring their recollections and assessments with current biases.

Sampling for content review

I sampled both primary and secondary documents including campaign and promotional materials, Facebook posts, etc. As events and materials were ongoing, I was unable to create a detailed sampling frame from which to draw documents. Rather, I utilized purposive sampling to assess documents for their theoretical usefulness as I encountered them (Marshall 1996).

Data Collection

Data for this research was collected on an ongoing basis from December 2013 to February 2015, beginning with in-depth interviews and participant observation. Data from interviews and observations was used to inform survey questions, and document analysis was added to supplement existing data.

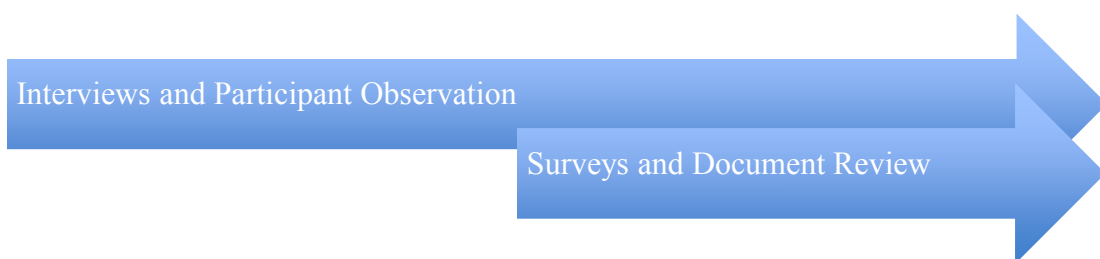


Figure 3.3 Order of research activities

In-depth Responsive Interviews

In-depth interviews were conducted from January 2014 to October 2014 with leaders (n=11) from nine groups organizing against fracking in Northern Colorado. This sample included both women (n=5) and men (n=6). Specific data was not collected to delineate age or income. However, as communities in my case study represented a less diverse, more educated, and wealthier population than the Colorado average, it is likely that this was reflected in my sample.

Interviews were conducted both in person (in coffee shops and the homes of participants), over the phone, and over Skype. The interviews ranged from 33 minutes to over two hours, with an average length of 56 minutes. Some participants were interviewed only one time, but four participants were contacted for follow-up interviews, which allowed for a more nuanced understanding of organizational processes, and the opportunity to explore new directions brought forth in other interviews. Follow-up interviews lasted between seven and 65 minutes.

A cover letter (see Appendix C) was presented to each interviewee before the start of every interview to outline their rights as voluntary participants in this research, and assure them of the privacy and confidentiality of any information they give me during the interview. Interviewees were then verbally asked for consent to be interviewed, and then for consent to be voice recorded during the interviews.

I utilized a protocol-style interview guide (see Appendix C for early version of interview guide) with probes to provide the underlying structure for the interview (Rubin and Rubin 2012). However, I employed a non-standardized approach to allow conversations to flow naturally across topics (Denzin 1998). Follow-up questions were frequently crafted during the interview to encourage specificity and examples, fill in missing pieces, or explore unexpected ideas

brought forth by participants (Rubin and Rubin 2012). This interview guide evolved over time as respondents introduced new ideas and topics to my attention.

Graphic elicitation was used at various points throughout the interviews. Participants were instructed to draw their organization's relationships with other organizations. More directions were provided if requested, but generally I attempted to provide as little guidance as possible to prevent affecting the diagram.

Surveys

This research focused on “ego networks”, which are based on a single individual's (or “ego's”) assessment of their personal relationships with other individuals (called “alters”) (Trotter 1999). To gather data from individuals who had been interviewed previously, a network survey on relationships within and between groups was developed in May of 2014. Interview data was used to suggest important elements for the survey, including which dimensions of relationships were relevant in this network.

Participants who completed interviews were contacted again through email in early January of 2014, and asked to complete a short survey to provide more specific information on their relationships. The survey was offered primarily as an online, interactive tool through the site SurveyGizmo, but was also made available to participants in paper form if requested. Overall, four egos (out of 11 participants) representing four different organizations completed surveys. Altogether, these four nodes identified 17 additional organizational nodes, and 18 additional individual nodes.

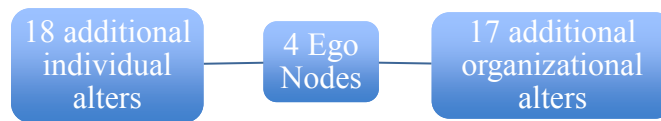


Figure 3.4 Network data gathered through surveys

Participant Observation

Participant observation was conducted between December 2013 and October 2014 for a total of 27.5 hours at nine sites. This included observations on 12 organizations. These observations were completed across diverse contexts—the time of day, day of the week, number of attendees, location of event, and purpose of the event varied widely. Often, I entered these settings overtly as a researcher, and received express permission to be there in that capacity as well as in the capacity of a volunteer; however, due to the large number of other volunteers and individuals I would come in contact with, it was impractical to make every individual aware of my status as a researcher. A summary of these events is included in the table below.

Table 3.1 Data gathered through participant observation

Type of Event	Hours Observed	Organizations Represented
Organizational Meeting	6	7
Coalition Meeting	6	4
Educational Event	14	8
Other	1.5	6

I approached the ability to take notes and jottings differently in each field based on the type of event, my overt or semi-overt status, interpersonal relationships, and social cues. In their second chapter, Emerson, Fretz, and Shaw (2011) discuss the differences between entering the field overtly or covertly in terms of taking notes. Researchers who are overt about their role as participant and observer generally have more freedom to engage in taking some form of notes

(Emerson, Fretz, and Shaw 2011). However, overt researchers must evaluate when writing notes may be inappropriate, make people nervous, or affect what they are saying or doing (Emerson et al. 2011).

When notes were allowable, I took jottings, which are short words or phrases that outline important events or provide a trigger for remembering events and interpretations later (Emerson et al. 2011; Lofland et al. 2006). After leaving the field, reflections on the field were written or, more frequently, voice recorded, often during travel away from the field. I found that spoken notes could often be recorded sooner, and were frequently more effective for me to work through thoughts and concerns before beginning the more systematic task of expanding upon my observations. These reflections, also known as asides, “succinctly clarify, explain, interpret, or raise questions about some specific happening or process” (Emerson et al 2011:101).

Document Review

Between May and October of 2014, I reviewed 37 primary documents. A breakdown of the number and types of documents, as well as the number of organization represented in each category, is included below.

Table 3.2 Data gathered through participant observation.

Type of Source	Documents Reviewed	Organizations Represented	Coalitions Represented
Promotional flyer	3	2	N/A
Promotional video	2	2	2
Website	24	16	2
Press release	3	6	2
Educational material	2	2	1
Volunteer training material	1	1	1
Proposed ballot initiatives	2	N/A	2
Total:	35	16	2

Data Analysis

Preparing Qualitative Data from Interviews

Recordings of interviews were personally transcribed to promote deeper understanding of the content. During the transcription and data analysis stage, the audio files were secured on my personal computer. First names were not used during the interviews, and names were not used in the transcripts to further protect confidentiality (Rubin and Rubin 2012). I immediately assigned a pseudonym to each participant—and to the individuals they discussed within the interview, and used that on the transcripts. I kept the participants' names and pseudonyms in a password-protected file on my computer, and once the research was complete, the files were erased.

Afterwards, each transcript was “preened” for completeness and accuracy (Drisko 2013), and a summary of main points was developed for each interview (Rubin and Rubin 2012). Data from interviews was then uploaded in the qualitative data analysis software Dedoose to assist with the coding process.

Preparing Qualitative Data from Observations and Documents

As frequently as possible, I created field notes based on my jottings within 24 hours of leaving the site (Emerson et al. 2011; Lareau, Shultz, and Shultz 1996). This involved creating detailed accounts based on my jottings, and transcribing asides that were later expanded into commentaries, which often include emotions, interpretations, and opportunities for further exploration as ethnographers navigate the field (Emerson et al. 2011: 102). I avoided speaking with other individuals before transcribing field notes to prevent allowing outside opinions or statements to color my judgment. To increase reflexivity in data analysis, I separated out those that were done more than three days later and marked them as “retrospective” (Lareau et al.

1996). These field notes were used for contextual purposes only. Field notes created from rapport-building events were also set aside as contextual.

After preparing field notes, I applied pseudonyms to the data—using existing pseudonyms from interview data if available. All field notes, except those set aside as contextual, were entered into Dedoose for integrated coding with interview transcripts. Whenever possible, other documents used for ethnographic content review were also uploaded directly into Dedoose to facilitate integrated coding.

Coding Qualitative Data

According to Charmaz, coding is “naming segments of data with a label that simultaneously categorizes, summarizes, and accounts for each piece of data” (2006:43). The first stage of coding, called open coding, encourages variety and creativity in assigning codes to units of text. In the earliest stages of analysis, transcripts were frequently read and codes assigned for small units of text (Glaser 1978). This included assigning a code for every relationship that was mentioned, whether with another organization or another person, whether positive or negative, whether in-depth or in passing.

Analysis continued with the introduction of some thematic open coding, especially when coding secondary data from field notes and document analysis. Multiple codes for a single unit of text were used when appropriate to avoid early bias towards specific concepts or themes (Charmaz 2006).

The next stage of coding, focused coding, zeroed in on specific codes that appear to be the most useful or relevant (Glaser 1978). Ultimately, this research focused in on codes related to place attachment, framing, political context, tactics, and ties. Within each of these codes,

subcodes were created to better delineate the content of each excerpt. These codes were applied to the data as a whole to test their significance and cohesion in the big picture.

After focused coding, the theoretical coding stage related codes that have remained relevant to each other (Charmaz 2006; Glaser 1978). According to Charmaz, theoretical codes are “integrative” and “lend form” to relevant codes (Charmaz 2006: 63). Theoretical codes “may help you tell an analytic story...but also move your analytic story in a theoretical direction” (Charmaz 2006:63).

Throughout the analysis, I utilized memo-writing to develop analysis through codes and/or themes, and the linkages between them (Charmaz 2006). According to Charmaz,

memo-writing forms a space and place for exploration and discovery. You take the time to discover your ideas about what you have seen, heard, sensed, and coded (2006: 81-82).

These memos provided key stepping stones in developing concepts and the linkages between them, as well as informing theoretical sampling of future participants.

Social Network Analysis: Harvesting Qualitative Data

Interview transcripts, field notes, and documents were re-coded for network data. First, mentions of both individual and organizational relationships, as well as the types of ties that were mentioned, were recorded in separate matrices to be used in social network analysis. Matrices were coded with zeros when relationships did not exist, and ones when relationships did exist. When data was available on the nature of the relationship, higher numbers (2,3,4) were used to signify stronger ties, or ties with more loyalty and affection, or with more dimensions (providing both support and friendship, for example).

Then, qualitative data was recoded for attribute data, which provides information on the types of nodes within the network, such as whether the organization operates at a local, regional, or national level.

Social Network Analysis: Harvesting Quantitative Data

Data from network surveys was recorded in matrices using Microsoft Excel, leaving out incomplete or unclear answers. Pseudonyms were assigned to each individual name and organization generated through the survey, with pseudonyms for nodes identified through qualitative data being reused for quantitative data. New names and pseudonyms were saved in the existing password-protected file.

Matrices were first created for relational data, coded with zeros when relationships did not exist, and ones when relationships did exist. When data was available, higher numbers (2,3,4) were used to signify stronger ties, or ties involving more interaction or more dimensions (providing both resources, advice, and friendship, for example). Edge lists were also created relating individuals to the events they attended. This same data was then used to create attribute matrices indicating attributes of the organizational nodes, such as whether the organization operates at a local, regional, or national level.

Analyzing Qualitative and Quantitative Network Data

I imported matrices from both survey data and interview data into the network analysis software UCINET for analysis. Network diagrams, called sociograms, were created using NETDRAW with both individuals as nodes, and organizations as nodes. Separate diagrams were created for each relational matrix. Relational matrices were tested with different combinations of attribute data to examine patterns of relationships by attribute.

Several network measures were utilized to understand mathematically the sociograms created:

1. *Density* explores the number of possible ties that are realized. Dense networks have more ties, and thus more avenues to transfer information and resources

2. *Centrality* explores the nodes that are most central to the network, or the ones that connect the most other nodes together. Identifying these relationships can provide additional insight into how ties are created, and the effects of power on the network.

3. *Girvan-Neuman tests* identify cohesive subgroups within the network by finding the boundaries between highly connected groups. This can provide insight into factions within the network that may exist relationally, but not be physically separate.

Synthesizing Results

Results from social network analysis were synthesized with themes from interview data to create a rich picture of the network and network actors. This involved both revisiting existing codes from qualitative data, and recoding qualitative data to reflect new questions and new insights sparked by visual representations of the relationships and the network as a whole.

Methodological Limitations

Researching only a single case creates some limitations in building theory. Multiple cases provide more opportunity for comparison across contexts, leading to more thorough and sophisticated theory-building (Eisenhardt and Graebner 2007). However, the ability to compare across coalitions and organizations provided an additional layer for comparison and complexity in theory-building.

In addition, the low response rate to the network survey limited the robustness of network data. The four survey responses I was able to gather allowed me to enhance my understanding of the network built through qualitative data, but network maps may have been more robust with a larger sample or survey participants. This is in part due to the short period of time I collected

data through the survey, as well as to the busy schedules of participants and to technical difficulties I experienced with the survey even after testing it numerous times. However, it is likely that a small amount of nonresponse was due to concern over sharing detailed information about relationships.

Though participants generally expressed trust in me personally and were open with me when speaking face-to-face, there was concern that my data was too “useful” for oil and gas companies, who were characterized as interested in eviscerating popular dissent through whatever means necessary. One individual was so concerned about information being used against their network that they rescinded their interview just days after speaking with me for hours about their experiences. Despite my best efforts to remain transparent and assure participants of my commitment to protecting their data and using my research to benefit rather than harm them, many participants remained somewhat guarded with detailed information about their specific connections, especially when communicating with me electronically.

CONVERGING LOCAL RESPONSES TO THREATS

In this chapter, I explore the formation and early history of the network of organizations opposing fracking in Northern Colorado. I begin with a description of the context in which networks were developed, and then discuss the characteristics of the network leading up to and during local community ballot initiatives. I then dig into three important contributors to the formation of this network—a shared motivational discourse of place protection, a shared goal, and shared political and educational experiences. I conclude by exploring parallels of these dense networks: shared perceptions of political opportunities, and shared resources.

Setting the Stage

Though a few local organizations were formed as early as 2011, much of the formation and growth of local organizations occurred in 2012 and 2013, with eleven groups forming in ten communities by mid-2013. Fueled by the possibility of fracking near reservoirs and schools, individuals began researching impacts and taking action.

For many of the communities in Northern Colorado, this meant requesting action from their city council members on fracking. Nascent organizations spoke before their city council and brought forward petitions for council-initiated moratoria on fracking to give citizens and governments the time to gather more information about its safety and put the proper safeguards in place. Though one local government put a temporary moratorium in place, it was quickly lifted and replaced with ordinances and regulations that did exceed the existing COGCC regulations, but did not meet the standards of organizational leaders. One other local government drafted an emergency moratorium, but would not enact it, explaining to citizens that they planned to save it until an application to frack a well was received.

Frustrated with the lack of government responsiveness, organizations began seeking other means to place a permanent ban on fracking, or to temporarily halt it until clear scientific evidence about its safety was available. Colorado's legal structure designates over 100 communities as "home rule" communities that have additional legal powers under the state. In communities with home rule charters, citizens are able to petition the government directly to add an initiative to the local ballot. In 2012 and 2013, organizations submitted thousands of petition signatures to their city governments to put bans and moratoria on the ballot. Each of these ballot initiatives was headed by a single community organization.

In 2012, the first communities were successful in passing regulations, moratoria, and bans on hydraulic fracturing in Northern Colorado. The first of these ordinances and amendments were quickly countered with lawsuits from the Colorado Oil and Gas Association, an industry trade group, and the COGCC for overstepping state laws. However, this did not stop additional communities from putting forth ballot initiatives for similar bans and moratoria in 2013. The following data explores the relationships that occurred during this intense period of change and hard work as organizations pursued ballot initiatives.

Early Network Characteristics

A network diagram of the early ties between organizations demonstrates an extremely high level of density (1.205) for network organizations. Local organizations, designated below with circles, are nearly universally connected, and only a single local node has less than three ties. The triangles represent organizations that operate at a state or national level that are involved in the campaign. They are similarly well connected, with several state and national partners both at the center and periphery of this network. Organizations have both many ties

overall, and a combination of several strong ties, designated by thicker black lines, and weaker ties, indicated by thinner lines.

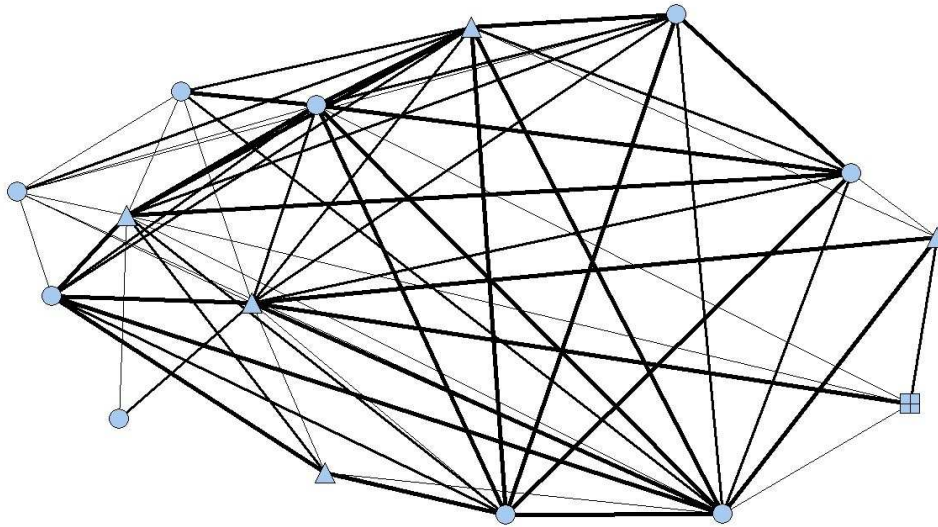


Figure 4.1 Organizational network during local campaign stage. Circles represent community organizations, and triangles represent organizations operating at a state or national level.

A Girvan-Neuman test on the network shows no substantial factions or subgroups within the network during this stage of action. The one organization identified as outside the group was much less publicly active, and was not in a community pursuing a ballot initiative.

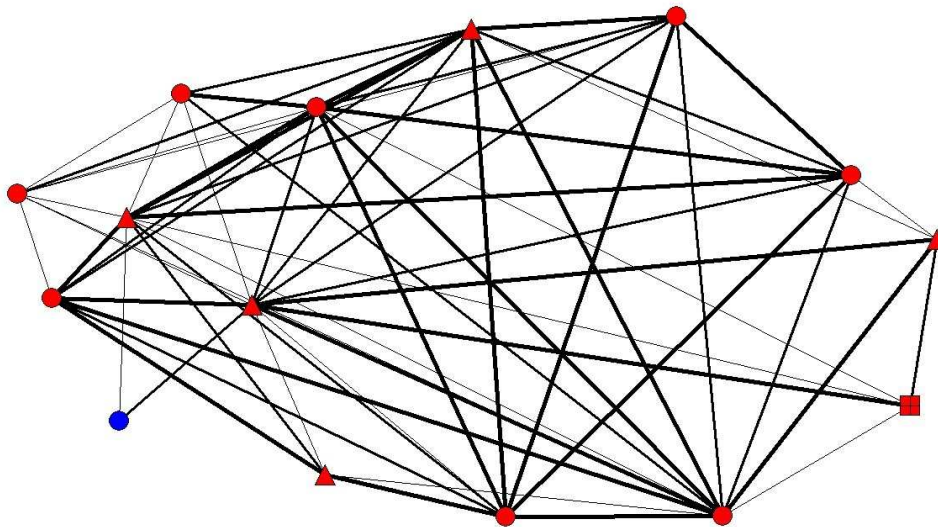


Figure 4.2 Girvan-Neuman test for subgroups found no major divisions during local campaign stage.

Both the dense nature of connections between organizations and the lack of significant divisions or factions among organizations were confirmed throughout interviews. One participant gave this description of how she began working with other groups:

And Ethan and Greta called, or one of them called me, and—I think it was Ethan—and said that they wanted me to come and [participate in the event]. So, I did. And that’s how I met Paul and spent more time with Greta and met Hugh and Ted and Dana and.....and Walter, Walter was there too.

Because organizational leaders were so densely connected, a connection to one individual and invitation to a single event opened up links to many other leaders and organizations.

The above description also points to the strong link between organizational and personal ties. Because it was such a small, dense network of leaders, many participants used organizational and leader names interchangeably. One participant stopped himself mid-sentence to explain this, saying:

And then other groups started popping up. We met Blair—a lot of these groups started with one person, so when I talk about [her organization] I’m not talking about 2000 people. I’m talking about one or two people.

Though these ties were originally created within the context of organizations, it was nearly impossible to separate organizational relationships from personal relationships.

The personal aspect of these relationships were particularly important to participants, who frequently emphasized the camaraderie they shared with other Northern Coloradans fighting against fracking, specifically with other organizational leaders. One participant noted that: “All of the people that are really spearheading the movement in their community, I would say are friends.” Though survey results suggested that only some of the relationships were ones of close friendship where individuals spent time outside of organizing together or felt comfortable talking with the person about personal issues in their life, participants felt that the bonds they created were lasting ones. Survey participants expected to remain friends with every person they named

for providing personal or organizational support. In addition, survey participants expected to continue organizing with many of the participants on other community issues in the future.

These strong and lasting personal ties balanced more difficult organizational relationships, such that participants maintained that they would still “have a beer” with other leaders even if they weren't in full agreement about strategies or goals.

Contributors to Dense Networks

Dense networks of organizations often require significant time and effort to develop. The following paragraphs explore three important contributors to dense networks of organizational leaders in Northern Colorado: shared motivational discourse, a shared goal, and shared experiences, both political and educational.

Shared Motivational Discourse: Protecting Place

Each of the eleven participants cited a wide range of concerns that motivated them to first take action against fracking, including concerns for the impact on local natural resources and concerns about the impact on health, particularly on the health of children. Some participants had encountered the term fracking before it was introduced to them in a local context, but most expressed that they had paid little attention to it before it had entered a more local sphere of their life.

Participants openly stated that fracking became of importance or interest to them when it became possible that it would be installed physically close to them, which echoes literature on the importance of place for mobilization (Gieryn 2000; Norton and Hannah 1997; Stedman 2002). From my interviews, it was often unclear how close each participant would be to drilling activity itself. Three participants mentioned the close physical proximity of drilling to their homes or former homes, but it appeared that participants were concerned largely about close

proximity to their community as a whole rather than proximity to their home, workplace, or child's school. One participant described her experience of finding out that fracking could be introduced in her community, saying that,

There's so much bad news that you get used to it, but this was so close to home that I had a very visceral response. Like, okay, if I don't act on an issue that's so...destructive and also so local, I don't know what would ever get me to do something.

Another participant also described her first decision to take action as specifically related to a threat to her neighborhood, saying,

It's just when it hits your neighborhood. I wish I could say I was more altruistic, but you know, just the limits of time...But I knew, like as soon as I saw (the sign) that said oil and gas drilling, I was like, "They're gonna f***ing frack here".

Both of these participants allude, not only to the importance of the local nature of the threat, but also to a multitude of different social problems to which they could be committing their time and resources. Their quotes suggest that they often do not feel compelled to act on other social problems that they hear about in the news or from friends. The fact that this particular social problem was perceived to be both very local and very detrimental to place elicited strong feelings, immediate action, and sustained resistance.

Though to some this may suggest a NIMBY orientation to fracking, participants resisted this label, and used language that demonstrated their strong sense of place and compulsion to protect it. This is consistent with Devine-Wright's (2009) discussion of place attachment as a more nuanced way to understand collective action against energy projects in a community.

Participants universally expressed a strong connection to place, though the source or type of connection varied across participants. For one participant, this was a connection to the physical place itself and the natural environment to which they felt emotionally connected.

I mean, I wanna protect this land that we live on, I mean this is part of the reason I moved to Colorado. So we can be in the mountains, so we can have this view in

our backyard. I mean, this is the reason we live here, you know, so we can play outside, outside of work.

This alludes to a primarily spiritual or ideological relationship to place that values a place for the connection to the earth that it provides and the inherent value that resides there in nature (Cross 2001a; Brehm 2007). This type of connection is particularly threatened by changes that would damage the natural environment and disrupt the sense of renewal and enjoyment that place provides (Cross 2001a).

Another participant experienced fracking as a threat to the social character of place, and emphasized the importance of distinctive character to a place. He said,

This is a really cool town. People love it here. It's got a lot of life, it's got a lot of unique character, and turning it into a gas and oil field would absolutely ruin it. So I think we're behaving as though we're defending the place we live, and where we love.

This statement suggests concerns not only for physical changes, but also any changes to the social and cultural characteristics of place that may result from more industrial presence in the community (Devine-Wright 2009).

Though many participants were “transplants” that grew up in other places and moved to Colorado, (which made up 58% of the population in 2012 according to a New York Times analysis of census data), some participants had family history in the area, and described the importance of protecting this connection to the past, suggesting a primarily biographical relationship to place (Cross 2001b). Two participants specifically mentioned threats to land to which they had a biographical connection, and two other participants shared stories of other volunteers who had evoked biographical connections in explaining their participation. For example, one participant related the story of a young college student who could have volunteered in an organization in her college town, but instead drove to her hometown to help with the efforts there, saying:

I remember this one gal, she...she came over from [another community]. ...She just was like, “I just feel really passionate about this issue.” ...I was like “How did you hear about us?” And, you know, “why do you want to do this?” And she was just like, “I just feel really passionate about this. This is my home. I grew up here. And, I just want to help you guys.”

Frequently, a biographical relationship to place was intimately connected to other types of relationships to place. Multiple participants discussed the financial investment they or their family had made into preserving their biographical relationship to place, and one participant related this to his connection to the physical beauty of the place, saying:

We bought my parents’ land after they died, and I moved here largely to be here during retirement. ...Of course, like a lot of retirees, we had put our life savings into moving here and being here, and, um, because of the pristine area. I mean, my family is from this area. My grandparents came here right after the turn of the century.

This participant intertwined various relationships to place together—biographical to the land of his ancestors, ideological to the principle of maintaining the land as valuable and important in itself, and dependent because he had invested his livelihood into this place (Cross 2001b)—and struggled to separate them in his explanation of his overall relationship to this place.

Similarly, another participant intertwined biographical connections and financial dependence with a concern that hydraulic fracturing would pit his parents’ health against the place in which they had invested so much time, energy, money, and emotion.

[My parents] bought a little piece of land out in the countryside to raise my brother and I. ...And they poured all of their savings and their wealth into this little property. ...[but they] don’t own their mineral rights, so...at any point someone...could come and knock on their door and say, “We own the mineral rights, and we’re going to start fracking here.” And in doing so they will be facing...their property value going down, their health deteriorating, and all of the time and work that they put into that property would go down the tubes. So this fight is a very personal one for me.

Though he is overtly focusing on the threat to his *parents’* place and relationship to place rather than a threat to his own place, it is because his biographical relationship to place is entwined with

the relationship to place his parents had. He struggles to separate his parents' connection to place from his own, and thus feels the threat to their place as a threat to his sense of place (to a certain extent) as well.

Though sense of place existed in multiple forms across my participants, all expressed that this change to place would be distinctly negative. Some even expressed it as having the possibility to completely sever them from their physical, cultural, and social sense of place, and alluded to the loss they would feel if that occurred (Fried 2000; Fullilove 2005). According to one participant,

Even [before our campaign] we had decided that just simply doing what was expected of us was going to—it was going to guarantee our loss. It was going to guarantee the loss of our community.

Most participants did not explicitly say that they would leave the community if fracking were to occur. However, some expressed inner conflict with regards to having a relationship to a place that could have negative effects on the health of their family. One participant also described the feelings of some of her volunteers, who linked their place to their legacy:

They tell me “I bought this house and paid it off and retired here. And I was hoping to leave something to my grandkids, but I wouldn't want them here.” It's an emotional loss that people feel because that was their legacy.

These individuals had hoped to pass on a biographical sense of place to their grandchildren, and felt a sense of loss at the idea of sacrificing that relationship to place because of the threat it could pose to the health of their family.

These same narratives of protection of place were seen later in the discourses used externally in communicating with the public. Many of the names of the organizations themselves emphasized protection and unity within a particular place, and many emphasized the collective nature of this fight. Materials emphasized that organizations were fighting for "our" community, "our" safety, "our" families, etc. This points to the usefulness of place attachment as

a discursive resource upon which individuals could draw in developing motivational frames that inspired action among their friends and neighbors.

The initial threat of change and loss inspired participants to explore the ways they could prevent change and preserve their current relationship to place. These explorations often led individuals down a similar path of political and educational experiences that paved the way for strong ties within and between organizations.

Shared Political and Educational Experiences

Participants were easily able to identify how they first learned about fracking and trace their personal trajectory into acting against fracking, but when asked how they first connected with or worked with other community organizations, participants had much more difficulty pinpointing the mechanisms through which these ties were built. Participants largely described ties as being formed “spontaneously”. One participant suggested that the shared mission and shared understanding paved the way for these “spontaneous” connections, stating

You live in a town and you're under attack and a lot of people don't understand that, so you have that shared understanding and that shared mission, so your bond kinda happens spontaneously.

Though many participants used similar language to describe their experiences of creating bonds with other leaders within and outside of their organization, participants also mentioned three specific shared experiences that brought leaders closer both physically and emotionally leading up to local campaigns: City Council meetings, organizational meetings, and educational events.

City council meetings

Nearly all participants took a similar route to their involvement in organizational leadership. After learning about fracking through a media source, they researched more information individually, then went to local government bodies, most often City Council, to voice their concerns. In these City Council meetings, citizens were given an allotment of time—

usually two to three minutes—to voice concerns to their elected officials and share the knowledge that they had gained. Though very few individuals felt that government officials took their requests serious, these meetings did serve another important purpose. As one participant described it:

I went down to City Council...to give my little three-minute worry speech, and other people that were there said let's meet and let's see if we can get organized on this because this is big.

City Council meetings provided a shared space in which individuals could “spontaneously” find others who were also interested in opposing fracking. These meetings also provided a place for sharing knowledge, as individuals each brought their own stories and statistics to share with local officials as they encouraged them to place a moratoria or ban upon fracking within the city limits.

Organizational meetings

Another experience that many participants shared was attendance at a meeting of an existing organization. One organization that began in 2011 was particularly important for the creation of dense ties among some local organizations in Northern Colorado. Several participants recalled hearing about the organization, which received local and national media attention for protests of a well pad near local schools. After hearing about their efforts, multiple participants attended one of their meetings to learn more about what they were doing and how they could get involved in opposing fracking in their own community. One participant spoke of her experience at one of the meetings, saying,

So I went to a meeting not knowing anything really. I met one person from my town there...who gave me emails of a few other people, and I think that that's how I got to know these guys. When we first started there were four people who were doing this. So I guess it was through [them] that we really got together.

This existing organization, which received attention far beyond the borders of their community, was able to facilitate face-to-face interaction between individuals who were interested in opposing fracking. It provided another shared space that attracted similar individuals and allowed them to foster early ties that aided the creation of new organizations. This setting also allowed individuals to gain information together on how an existing organization was functioning and what their strategy was for creating change. This provided a framework for some to tackle the initial problems of starting a social change organization.

Educational events

In 2012 and 2013, many of the nascent organizations focused on educating both themselves and the public about fracking. This led to the formation of many events inviting experts from within Colorado and across the United States, largely to provide information on the science of fracking, but also to share other personal experiences of fracking from other parts of the country.

A lot of the organizations worked on events and educational events and things like that... You know, movie screenings of Gasland and Gasland 2 and having a healthcare professional event where health professionals talked about health impacts. ...Having [a speaker] come in and talk about the economic impacts. We definitely helped host events that kinda explored the impacts of fracking on communities.

These events were open to the public, and advertised largely through personal and organizational Facebook pages. The exact number of participants at each event is unknown, but participant observation and interviews suggested a wide range of participants across events, from as little as fifteen to as many as 500.

These events compounded the spread of information and building of ties that was already happening through City Council and organizational meetings. They provided a singular space

for multiple organizations to come together with other unaffiliated citizens and share both concerns and knowledge.

They also facilitated discussions between individuals that were frequently from different parts of the community who had few prior connections. Of the nine individual nodes listed as providing personal support in the in-depth survey, only two were relationships that existed before the start of local campaigns. Most connections were made during the local campaign stage, or between the local and state campaigns. Even a participant who did know other leaders outside before beginning the local campaign had this to say:

Well, you know, it's funny. For me, there's so many people that I never would have walked up to and introduced myself...I—I spend a lot of time, um, with my climbing and skiing friends and that's kinda what I do outside of work. And I've met so many amazing people here. I really feel like...I have connected with my community. Like I know a lot of people in our community. I know our neighbors. I feel like I understand...I've studied all the streets and the neighborhoods around here and I know where all these different people live. It's like, I met so many amazing people. I woulda never done that if I woulda just done my own thing and not become an activist and doing this stuff. So I feel like it's changed me. I feel like I've gained a lot more appreciation for my community. And that's pretty cool.

Though event participants were often recruited from within the organizer's personal network, events also served the purpose of providing a space for interactions that built an entirely new network among different parts of the same community. These events, some of which were on the weekend, may have provided also a better schedule for individuals who were busy during the week, and longer, more formal events may have seemed more “worth” a drive of an hour than a simple organizational meetings

The sociogram below diagrams the connections between people (designated by circles) and events (designated by squares). This network diagram, constructed from surveys, interviews, and observations suggests overlap in attendance at several events throughout 2013. A test for betweenness emphasizes two events in early 2013 that connected many of the

participants together. One individual who attended nearly every event listed in 2013 also had a significant betweenness score. These figures support the importance of events as organizations built up to their campaigns.

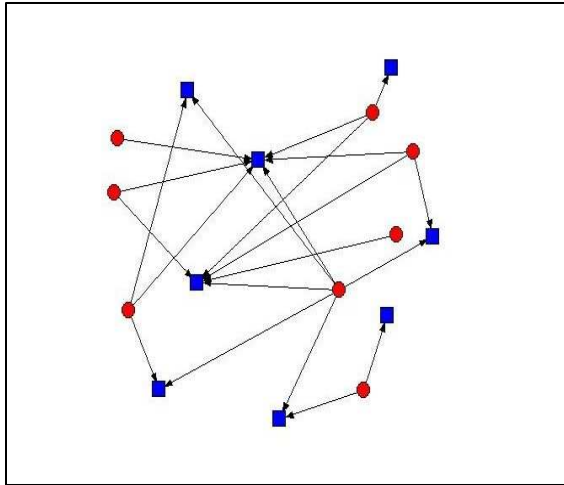


Figure 4.2: Edge list of event attendance, where events are represented by blue squares and individuals are represented by red circles.

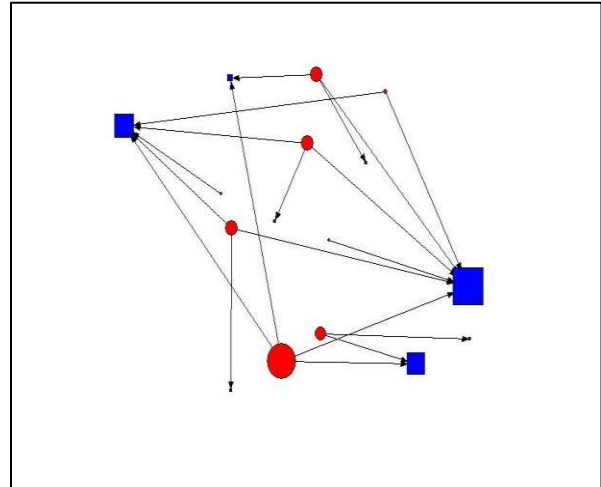


Figure 4.3: Betweenness results on the events edge list identify two events and one individual who are important network connectors.

Multiple participants recognized the importance of shared educational experiences to building network relationships. One participant event suggested that more educational events were still needed to help organizations band together and become more effective in future campaigns. She said:

Well, I think [we need] more good educational events that we all participate in. And I'm distinguishing it from rallies where you're just stirring up the enthusiasm. ... Maybe because I'm an educator, but I think when we get together and learn stuff and then mobilize to do something effective, that that's the part I love.

Shared spaces

Each of these relational pathways demonstrates the importance of shared physical proximity to building meaningful ties in this particular social movement. City Council meetings and educational events specifically acted as "third places", or places outside of work and home that provide neutral, inclusive settings encouraging informal interactions and the creation of new

ties (Oldenburg 1999). Though their communications were also supplemented by email, Facebook, texting, and phone calls, the initial building of ties occurred when individuals shared the same physical space, and thus could take part in physical rather than virtual interactions. The importance of this physical interaction became clear to one participant in later stages of her involvement when meetings frequently had to occur over the phone:

Unfortunately I think we've only had three face-to-face meetings as a coalition. And—no we've had four and the first two happened in the summer and I was out of town. So I didn't get to know the people, right at the beginning and so on these phone calls you hear their voice but you don't quite know who they are.

It is likely that ties created through these shared experiences were stronger because of the trust built through face-to-face rather than virtual interactions.

Shared Goal

Initially, disagreement existed both within and between groups about the best way to tackle the problem of fracking. Some were interested in using regulations to limit where fracking could take place, and to minimize potential negative impacts on the health and environmental of the community. Others were strongly opposed to the use of regulations, wanting instead to ban the practice from taking place in their community.

This was the subject of many long and spirited debates in early organizational meetings, frustrating many participants who felt that these conversations were keeping them from making plans and taking action to make changes. One participant described the stressful early meetings this way:

We began meeting and I think we took half a year to get ourselves sorted out. Those meetings were very difficult. ... We'd have these meetings where we'd go around, everybody would say what we should do and then the meeting was over and we hadn't decided anything.

Most participants shared similar stories of early groups mired in decision-making about what the goal was and how it would be accomplished. Ultimately, most community groups opted to utilize a core group for decision-making, thereby reducing the conflict over meanings and goals.

After attending educational events, speaking with other concerned individuals, and doing their own research, none of these core leaders felt that regulating fracking was enough to keep their community, environment, or health safe. One participant concluded that "regulations are just a yardstick to measure how much you can be legally poisoned or harmed" but stated that it was "a painful year and a half" to come to that conclusion.

Though conversations continued on whether a ban or a moratorium was a more effective strategy, the shared goal of stopping, rather than regulating, fracking, whether permanently or temporarily, provided some basis for mutually beneficial relationships across differing strategies.

As one participant stated:

We all helped each other even if we took different approaches. Cause it's really about what's right for that community, not what's right for me and my organization. ...And it just grows from there. It's just about awareness.

This not only points to the importance of a shared goal, but also underscores the positive and supportive nature of relationships built through shared experiences and shared motivational discourse.

Parallels of Dense Networks

The dense networks created through shared motivational discourse, a shared goal, and shared experiences had a somewhat homogenizing effect on certain aspects of organizational strategy and action. Frequent interactions and close personal and organizational ties ultimately led to a shared discourse surrounding political opportunities and facilitated open sharing of resources.

Shared Perceptions of Political Opportunities

Participants continued to attend City Council meetings and educational events and honed in on their goal of enacting a ban or moratorium on fracking in their community, but increasingly grew frustrated with their lack of success in eliciting the desired changes—namely bans and moratoria—from local government officials. One participant described the process of repeatedly and unsuccessfully requesting action from City Council in this way:

We first went to City Council with the intent that we would ask them to just go ahead and put a moratorium in place... And they...weren't interested in doing that. They said, there's no threat [here], we don't need to worry about this, this is not a problem. And so, then a few more weeks went on, months. ...So it got to a certain point where, you know, you know that you've got to start gathering signatures to even start this process of a citizen's initiative. So, when we got to that kinda endpoint where we said, okay we're gonna have to make a decision here. If they're gonna say no...we're gonna have to go out and gather signatures, you know. So that's what we did and we gave up asking the City Council to do anything about it.

Another participant felt like her organization was making headway with their city council, but ultimately faced the same refusal to enact a moratorium:

They held off on permitting things, permitting wells, because there were so many of us showing up at City Council meetings. ...They agreed to hold a town hall...So we got hundreds of people to show up for it, and at least fifty, maybe more people ready to talk. Time ended up running out, so the tally ended up being 35 to 14. 35 people spoke against fracking and 14 people spoke pro-fracking. And the City Council still declined to do a moratorium and were gonna go ahead and permit. And we were like, "Okay, I guess we're gonna go to the ballot".

All participants shared similar experiences of being “shut out” by government officials who were either unwilling or unable to make changes, and couched themselves as unwilling activists who were forced into ballot initiatives by local government inaction. The vast majority of participants interpreted their local government's refusal to act as a sign of a lack of political will. However, some did concede that local governments are currently expected to cede control of oil and gas to the state level. According to one participant:

We asked the City Council and they responded with either ignoring us or belittling our complaints or couching the issue as something that they didn't have the authority to deal with. Which they don't. They technically don't. So it was a process of trying to shovel us off to the state... So it built into a tension between the community and the City Council because they weren't prepared to leave the script of playing by the rules and doing everything that was expected of them by the state and the industry... You know, they would do symbolic things... they were trying to buy their way into inaction... So it was very, very frustrating. At every point they sa[id], "Look, you can't ban this stuff. You can't say no to this. This isn't our issue. You have to talk to somebody else."

This frustration with the inability to and/or disinterest in enacting moratoria at the local level was shared among participants, and pushed individuals to collectively perceive that their only option to create change was through the citizen ballot initiative process. This likely accelerated the growth of organizations as they stretched their capacity to engage in ballot initiatives immediately to avoid being "stuck" until the next election attempting to work with a City Council reluctant to "leave the script" to take action.

In 2012, the first organization was successful both in adding a ballot initiative to municipal elections and in passing an amendment to the city charter banning fracking and its waste products from the city limits. Though a lawsuit followed, this success was important in encouraging other groups to pursue the same route.

When [they] decided to go ahead and vote to ban it, that changed the dynamics of everything. That was the moment we realized that people were willing to go further than the law permitted to protect themselves, to protect their communities. So that changed the dynamic of our conversations.

Organizations quickly recognized that, where the opportunities to influence local government officials were closed, the opportunity to mobilize the general population to vote in a ban was wide open. They quickly adjusted their perceptions of what was possible and began pursuing their own ballot initiatives.

The success of the first ballot initiative was vital to shifting local perceptions of what was possible to achieve, but also shaped the ballot initiatives that other organizations pursued. Many

organizations chose moratoria rather than bans specifically in hopes that they would avoid being sued in the same way as the first community had. By design, each ban or moratorium was slightly different. Because lawsuits were a very real possibility, organizations were trying to tweak their approach to be more, as one participant stated, “legally defensible.” As one participant shared:

Every other community, they thought they might get a lawsuit, but they thought “Well maybe if we only do it two years. Or if we put a limit on it or something.” So it was good that they all weren’t exactly alike because if they had been exactly alike then oil and gas could say “Look this is the same issue that [this community] had so let’s lump them all together.” Or “Let’s do a summary dismissal of the others and see how this one comes out.”

Because there was still uncertainty about the political opportunities to stop fracking in their community, organization leaders made strategic decisions within the framework of shared perceptions that a ballot initiative was the only way to create change.

Another area where perceptions of political opportunities converged was in the understanding of how successful campaigns were likely to be. Nearly all participants shared a specific idea of whose ballot initiative was most likely to win, and whose was most likely to struggle, based on narratives about that community, specifically about how progressive or conservative that community was viewed to be. One leader talked frequently about the constraints put upon her campaign by the community in which she lived and organized:

We just didn’t think it was gonna work here. We did think about it, but at the last second we just decided, “We can’t handle that. We don’t think it’ll pass.” You know it would take a lot of work to educate people and we didn’t feel like we had the manpower to do that. And I’m glad we didn’t cause I’m not sure that would have passed here.

Other organizational leaders mentioned this community most frequently as the recipient of significant support during the campaign because of these perceptions of the slim political opportunities available to the organization.

For other communities, the narratives about their community suggested wide-open political opportunities. One participant expressed feeling liberated by the narratives of her community, saying that they weren't worried about their chances, but that "if we were in a different city, maybe a bit more conservative, I would have been more worried about [the ballot initiative]". Multiple organizations that were confident in the political opportunities available in their community shared this information as a key driver to their ability to supply assistance, especially volunteers, to other communities. For example, one participant stated that:

We knew that our campaign had the best shot because our city is progressive and people are more—in large part supported what we were doing. So we were able to use a lot of our time and energy in supporting others.

She went on to state that her organization was able to "build up this support that we could redistribute into these other city movements". This demonstrates the real "consequences" created by community narratives (Hummon 1992). The perceptions of political opportunities had a significant impact on the way that organizations operated and how they approached both their campaign and their relationships to other organizations.

Shared Resources

Network relationships brought with them access to resources, used here broadly encompass everything from knowledge to strategy to volunteer resources and monetary support.

According to one participant, they received help:

a lot by experts that can speak about the science behind oil and gas development, but just as much [from] regular community members that are there to get the word out, to promote stuff, and to kinda walk with you really. We got support from groups all along the Front Range.

This demonstrates the broad interpretation of the "resources" or support that they received.

Participants frequently resisted attempts to pinpoint the specific types of support flowing through network ties. Many participants stated that they had received assistance in this broad sense from

all or nearly all of the organizations along the Front Range. According to one leader, “Every single person helped. ...Everybody was, to varying degrees, involved in [our community] I would say”.

Not only were organizations receiving assistance from multiple other groups, they were also often receiving multiple types of assistance from each group. According to one participant, another organization provided advice, materials, money, and training:

We met with [the organization] and they said these are the things you need to do to get started. They printed petitions for us. ... I wouldn't say they trained us, but watching what they did helped train us. I think they gave us some money at the end too. They helped train us on how to talk to the media a little bit. So those kinds of things.

These multidimensional transfers of resources were facilitated by the dense network and high levels of trust and reciprocity. None of the participants discussed feeling resentment towards giving freely and in any way possible because they knew they could rely on other organizations to do the same.

This was also reflected in how leaders spoke about their assistance that they gave. Participants discussed providing assistance to many other organizations in varied ways. Leaders were clear that they had played a background role and had provided support and not leadership, but they described giving freely to many other organizations. Relationships were not instrumental and one-dimensional; rather, they were rich and supportive across organizational and community boundaries.

Though Northern Colorado organizations were accused of receiving vast amounts of monetary resources and other support from national environmental groups, they resisted this characterization almost vehemently, with one participant asserting, “the real support and resources that we've received have always come from grassroots. ...These are community members, not professional activists.” Though organizations did mention small grants from

larger entities, they were always characterized as minimal, and participants frequently lamented the lack of funds available to them to run campaigns. As one participant attested, “all of the stuff that happened last year, all of that from my perspective emerged because of our grassroots [support].” The following paragraphs explore four specific shared resources that were exchanged between organizations: knowledge, volunteers, materials, and moral support.

Shared knowledge

Procedural knowledge on how to start an organization and attempt a ballot initiative was touted as a particularly important form of support flowing through this network. Participants sought out others to learn about strategies to use and pitfalls to avoid and, in the words of one participant, to “avoid recreating the wheel” in their work against fracking. These initial ties supported cross-organizational learning and promoted access to shared knowledge and resources.

After researching the mechanics and possible impacts of fracking and attending City Council meetings, many participants didn’t know what their next step should be in opposing fracking. Participants expressed feeling overwhelmed by the prospect of fighting against fracking; one participant said:

We were four people in a small town on a shale [play] that is prized by one of the biggest industries in the world. So what do you do? How do you stop that?

After doing their own research on the process, participants then reached out to other individuals and organizations both at events and through phone calls and emails. For example, one participant depicted her experience of finding knowledge at an educational event:

One woman was there with her organization...And I was like “I think they’re gonna frack in my neighborhood. What do you guys think?” And she was like “You should do this, you should do that, and you should talk to this person.”

Another participant recalled receiving a request from someone she had never met for information on how to get started building an organization to oppose fracking in her community. She talked about being able to pass on information they had learned from other groups:

She called me. And she said, “Hey...I’m starting this group. I’m really worried about this...I’ve been going to City Council meetings. I’ve been hearing about how you’re organizing. I don’t even have a group yet. ...How do I—what am I supposed to do?” And I told her, “Well first of all you should go to your City Council and ask them to put a moratorium on fracking right now, for starters. And if they say no, start working on your ballot language and get it together in case you have to gather signatures.” So that’s how our conversation started. ...We kinda had a plan in place, from us learning from other groups.

This same process occurred when organizations decided to pursue a ballot initiative, though this often happened later when individuals had already become connected to others, and thus individuals were more aware of who would have the best information and advice. As one participant shared:

I talked to a few people to get started, to figure out, okay, what did you guys do. What was the process.... Because we started to get interested in going [with a ballot initiative]. And, they were really helpful in telling us, you know...how do you go get signatures, what are all the hoops that you have to go through. And that was an education process for all of us. We didn’t know what you had to do, what the laws were. So they were really happy to be there if we called with questions, or, things like that.

This knowledge and advice flowing through these ties shortened the path to action and reduced mistakes, but also had the effect of homogenizing approaches. One participant explained that their approach was in “really close alignment” with the approach of another organization, and stated that her organization had “used their language almost verbatim.”

Shared volunteers

Volunteer support was particularly valuable for organizations in their work, and was consistently mentioned as an important resource both received and given by organizations. Funds for direct mailings were not readily available, so organizations relied largely on the work

of individuals, first to stand in public places to gather signatures for their petitions, and then again to walk through neighborhoods to promote the ballot initiative, drop literature, and remind individuals to vote.

Organizations were acutely aware of the manpower needed to execute a successful campaign, and worked hard to share volunteer resources across communities. One participant described a phone call between two leaders about how to best utilize volunteer resources:

She said, “Well if you guys are ready to gather signatures I’ll send you some volunteers. I’ll send out an email blast if you need people. And I would expect you would do the same for us when it’s time.” I said, “You bet. You better believe it.” And that’s what we did. ...Just sending out blasts about “Hey, such and such town needs to gather signatures. Can you help out?” or “This weekend we’re going to gather and do that” or whatever. Yeah, we would just kinda do that.

These “email blasts” were an important strategy mentioned by nearly every organizational leader to notify volunteers of events. According to another participant, both local and national organizations:

were really supportive in sending out our announcements to their listservs. That’s really what they did was help get the word out. Maybe a quarter of our volunteers found out about us through other organizations.

Ultimately, though leaders and volunteers were part a specific organization in their community, they frequently traveled across Northern Colorado to ensure that other organizations had the support and resources they needed for a successful campaign.

Shared materials

Another specific flow of support was through the sharing of material resources, including educational documents, informal volunteer training instructions, scripts, and more. One participant described providing assistance to other groups in this way:

I had scripts and stuff and I’d send that on and say, “Just use this. You don’t need to recreate that.” And I think that saves a lot of time. And, I think that’s been

helpful for each other to be able to do that. ...I mean all these people are volunteers. They don't have time to just keep recreating stuff.

These material resources also included “walk lists” that helped to organize volunteers to visit houses and remind individuals to vote. One organizational leader was highly regarded within the network for her ability to sift through data to target volunteer efforts in the community:

She was able to analyze voting data to determine who should be called on the phone, at what stage of the campaign, which precincts should be walked and so forth. ...She provided the walk lists, the analysis of who were likely voters...And so that targeted get out the vote strategy was used for each community very effectively. When you have limited volunteers, you can't spend a lot of time on people that aren't interested, or even voting.

The walk lists and volunteer trainings, like other material resources, were vital to allowing organizations and organizational leaders to stretch their capacity to be able to successfully carry out a ballot initiative in a relatively short period of time, and likely helped cement even further the relationships between organizational leaders.

Networks of moral support

The support provided through these networks was both organizational and personal in nature. Every participant described feeling overwhelmed by the sheer amount of work required to bring a ballot initiative to fruition. One participant described this feeling: “You're up against such a humongous industry...I mean, you feel like you're up against a monster.” Other participants echoed this sentiment, saying they felt, at times, “powerless” in trying to make changes in the current system. According to one participant:

This situation has been dynamic from the start, and it has not stopped. For those of us living in it, it's crazy. We don't know what's going to happen in the next 48 hours. ...I mean, it just goes on and on.

Participants were often taking this on in addition to a full- or part-time job, leaving little time for sending out email announcements, updating Facebook pages, organizing educational events, etc.

One participant described the difficulties of working and caring for children and household

duties, saying that she often would begin her work for the campaign at 9:00 PM or later after these other tasks were finished and her children were in bed. In describing the support she received from another leader, she said:

[He] will pick up the phone at 11:30 at night. Because he gets it. During a campaign you may be working 80 hours a week. He's like a mentor to me.

These networks of support frequently included one or more of four components: sharing advice, assisting with tasks, providing moral encouragement, and physically “being there” for the person at important events. Survey results reiterate the importance of sharing advice, assisting with tasks, and providing moral encouragement. The most frequent characterizations of supportive relationships were that participants could ask the person for advice on organizing and count on the person to complete tasks, which were featured in nearly 100% of support relationships. Being able to count on a person for moral encouragement was a characteristic of more than half of supportive relationships listed by survey participants. Supporting others through attendance at events was not captured through the survey, but one participant described both giving and receiving this type of support throughout the campaign, saying:

[the other communities], they were all at the hearing. You know, supporting us. We all kinda supported each other I feel like in different ways, whatever was coming up. And city council meetings. I know [other communities] had a bunch of pretty heated city council meetings so we would send email blasts out saying “Hey, if you could make it to [here or there] for these particular meetings go show your support” and blah blah blah. Yeah. We just try to support each other.

These relationships of support were, at times, purposefully built into network relationships. One organization that formed in 2011 assigned members of their core team to mentor other organizations in addition to providing information and resources about running a campaign. As one participant explained:

We kinda divided up and each of us kinda took one [leader]...giving the individuals that were in charge encouragement and putting out announcements that helped with the petition drives and going to their events. That sort of thing.

One participant described the experience of working with one of these “assigned” mentors, saying:

She’s the one who coached me and got me to not be timid and taught me how to talk to the volunteers and said, “This is what I did.” So I got best practices from [her], what worked for them and tried to replicate that. ...We got a lot of validation from them and a lot of support.

The validation and support that flowed through this connection, and throughout the whole network, both sprang from and further cemented the dense ties between organizational leaders.

Conclusion

The local campaign stage was characterized by a dense network of organizational leaders built through a shared motivational discourse, a shared goal, and shared educational and political experiences. These dense networks then influenced local campaigns by shaping the perceptions of political opportunities across communities, and providing conduits through which material resources, knowledge, and support were able to flow. Ultimately, these networks were an important factor to creating converging responses to the threat of hydraulic fracturing at the local level. However, these responses were not identical, and at the state level, the divergences became more important in structuring citizen responses to hydraulic fracturing.

It is important to note that, though this chapter generally distinguishes between processes that led to a dense network and processes that then sprang from this dense network, the boundary between the two is less clear. It is likely that shared perceptions of political opportunities and the sharing of resources further cemented ties between organizations, and may have even contributed to new ties in the network. Similarly, adoption of a shared goal could have been influenced by relationships with other organizational leaders, and shared educational and political experiences could have resulted from dense ties that spread invitations throughout the network and encouraged others to attend. This chapter is not meant to suggest causal processes, but to

explore the general trajectory for most organizational leaders as they traversed the new territory of opposing hydraulic fracturing.

DIVERGING STATE-LEVEL RESPONSES TO THREATS

In this chapter, I explore the changes in citizen responses to hydraulic fracturing as organizations shifted their focus to the state level, and examine the corresponding changes in the organizational network. I begin once again with a description of the context in which networks were changing, then discuss the characteristics of the new network leading up to state ballot initiatives. I then dig into four important factors that contributed to a shift in the response of one group of organizations—a divergent perception of the threat, divergent strategies, divergent partners, and divergent ideologies.

Setting the Stage

The President of the Colorado Oil and Gas Association, an industry trade group, called the five ballot initiative wins “round one, with many more rounds to come” (Wyatt 2014). It initially appeared that the community groups were prepared for the next “round”. Though four of the five communities were sued by the state to remove the bans, local organizations were undeterred, taking this as a sign that action at the state level was necessary to prevent future lawsuits and open other communities for successful political action against fracking. A coalition at the state level had already been created that included businesses and nonprofits among its members, but relied on the local organizational leaders to staff the steering committee and lead any collective action. This coalition had already begun discussions on using a citizen initiative at the state level to amend the Colorado constitution to designate the ability to reduce or stop fracking to municipal governments.

However, campaign success was followed by the weakening of organizational networks rather than the renewal of fervor for uniting as a coalition to create statewide change. Near the end of 2013, a few organizations left the original coalition to form a new coalition. Where there

had once been a united front, now two different coalitions presented two different ballot initiatives for the state elections in 2014.

The initial coalition, which termed its approach to addressing fracking “local control”, was able to bring their amendment before the state government for approval and cleared several procedural hurdles, but withdrew the amendment before signature gathering ever began. The organizations involved in this coalition still kept close tabs on lawsuits and met with other core leaders, but engaged with the public somewhat rarely.

By contrast, the second coalition, which focused on a “community rights” approach, had their ballot language approved, and held a statewide summit, as well as meetings and trainings all over the state, to create messaging and prepare individuals for signature gathering. Through their community presentations, three new organizations were formed in three Northern Colorado communities. Volunteers spent much of the summer collecting petition signatures, but the ballot measure was withdrawn before necessary signature totals were reached in hopes that a later ballot initiative would leave more time for planning and ultimately be more successful at the ballot box.

What caused this split between organizations, and how did this split spur one coalition to greater activity and one coalition into relative hibernation? This chapter analyzes this split through exploration of the divergences in the characterization of what was threatening their community, and the strategies they ultimately employed to address these threats. These two divergences were intimately linked with differences in network partners that they chose to work with and trust, and with different ideologies about protecting community.

Network Characteristics

The introduction of another coalition fundamentally changed the shape of the network, both introducing new nodes into the network and changing the strength of ties among organizations. The sociogram below shows the network during the state campaign stage, with the squares designating members of the initial coalition and the triangles designating the second coalition. The circle in the center of the network was an organization that joined both coalitions, the only organization to do so. For the purposes of this discussion, organizations that did not join either coalition were eliminated from the diagram.

Though ties still remained between groups in different coalitions, they weakened considerably, as demonstrated by the primarily thin lines crossing between the two clusters of nodes. Ties within coalitions, however, remain very strong. Though the network remains densely connected, with no nodes containing less than three ties, the overall density weakened to .843.

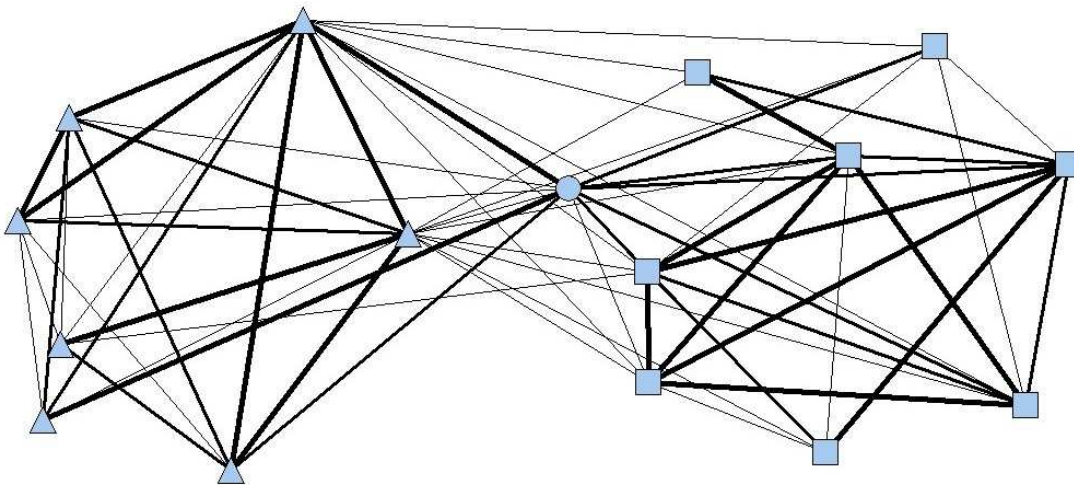


Figure 5.1 Network of organizations opposing fracking at the state level. Squares designate members of the initial local control coalition, and triangles represent the community rights coalition. The circle represents an organization that joined both coalitions

A Girvan-Neuman test on steering committee members (not including the dual-membership organization) detects these subgroups, reaffirming their salience in spite of remaining ties between organizations.

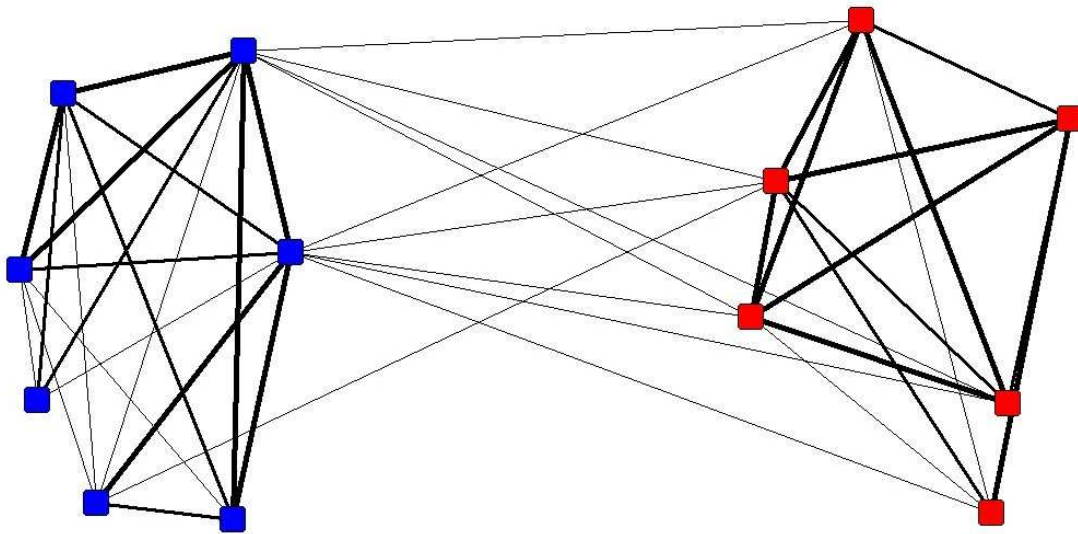


Figure 5.2 A Girvan-Neuman test supports separate coalitions as different subgroups despite remaining relationships across coalitions.

Interview data supports the sociogram of a more polarized network, suggesting that, though personal ties between leaders remained salient, the organizational connections were somewhat strained by tension between the two coalitions, leading to an overall weakening of ties across different coalitions. One community rights leader described the circumstances surrounding the tension.

There was a meeting to talk about what's next at the statewide level, and there was a lot of discussion and disagreement on what should be next, on what's a statewide initiative look like. A lot of people don't agree with the community rights approach. They feel like it might be too broad, it might be hard to educate people about it. And I understand that. It is going to be a challenge. But I also feel, on the flip side of it, if we just attack each individual issue, like let's say it's not fracking this year, it's GMOs or some kind of mining that comes in a town and we have to figure out, okay now, what are we gonna put on the ballot. Now we have to ban that too.

Her story demonstrates the frustration felt by both sides with their inability to come to a consensus on the appropriate state level response to the threat of fracking. Community rights leaders felt strongly that theirs was the only way to truly address the problem at hand. Local control leaders viewed this conviction as stubbornness and “ideology” that put ideas ahead of making real change. As one participant described, the community rights leaders had

a definite opinion about what the issue is and how it should be attacked. And I think that there is a great deal of difference between people with experience and people with an ideology. And I would classify community rights as one where the ideology is way more important than the strategies or winning. And if you’ve seen their polemic which they send around to everybody, it’s like a manifesto. It’s, “These are our beliefs” and um, it’s kind of revolutionary. And a part of me loves that stuff. I like a subversive theory as well as anybody. But I don’t see Colorado in general being in that ball park, you know. So I guess that’s to say you got the sure-footed ideologues or people with a definite philosophy versus the practical wing. “Will it fly?”

Though participants maintained that they supported each other in their approaches, they classified some of the relationships across coalitions as somewhat difficult or contentious for the first time. There was more concern over sharing resources than there had been in the past, with one participant accusing the community rights coalition of misusing local control coalition resources to promote their ideas. There was also a sense that groups would, to an extent, be in competition for resources and attention from the general public, and would have to be prepared to clearly explain how they differed and why they were using different approaches. One local control leader was concerned that residents would “read the newspaper and think the community rights thing is the next step. So, it remains to be seen how we explain our relationship to it”. Leaders recognized that it was not ideal to run two separate ballot initiatives. One participant from the local control coalition stated that

it would be great if we all could have agreed on one way to approach it, but the reality is a majority of us agreed on one way to approach it...It would be great if we were working on the same thing because it’s a lot of signatures. It’s daunting no matter what.

Ultimately, she explained that the differences between the campaigns would only be salient until August 4th when all the signatures are in and counted and then we start really campaigning for whatever initiative gets on the ballot. And if it's ours I hope everyone else will really rally behind whatever gets through.

A community rights leader echoed this sentiment. She suggested that having different approaches could be “healthy”, and that in the end the network would provide support to whichever initiative was most successful. She explained,

I mean, it's greater to pool your resources together, but I also know that whatever happens we're gonna support each other's efforts no matter what. We respect each other even if we disagree on the approach. Which is great. It may be healthy to have some different things going on to educate people in different ways, to just have the different perspectives on it. So I think in the end it'll be okay, even if we go down different roads as long as we respect each other. And we all agree to do that. And we've had conversations about that so I feel good about that.

This commitment to communication and support was ultimately what held networks together in the face of strain.

Divergent Threats

Though both coalitions were opposing fracking at the state level, the difference between how the threat of fracking was interpreted began to widen. The initial local control coalition utilized similar narratives to the local campaigns—fracking was a threat because it threatened their relationship to place, and because it threatened to pit their relationship to place against their physical health (and the health of their family), and their financial stability. The infusion of rights-based opposition to fracking into their language and strategy was couched in these same narratives. In a press release announcing the statewide ballot initiative language, one local control participant stated that:

Governor Hickenlooper has failed to keep us safe from fracking. For this reason, this ballot measure is necessary to ensure that we have the right to determine whether fracking is allowed next to our homes or schools.

Another participant echoed this statement, saying:

We believe that all communities deserve the right to protect public health, safety and property values in their own communities. ...Coloradans should not live in fear that the Governor or the oil and gas industry will bring a lawsuit if you try to protect your family or property from fracking.

These coalitional leaders emphasized the right of citizens to feel safe from physical harm in their community, and referenced the failure of government officials to protect their (and their children's) right to safety. They focused on the **right to protect** their place and their family as the rationale for their action. The focus still remained, however, on fracking as the major danger, and the actions of the state government as an aggravator of this danger.

By contrast, the second coalition still saw fracking as a threat to their place, but saw it as emblematic of larger systemic problems, namely the lack of rights for communities to not only be part of the decision making for industrial processes like fracking, to not just be “at the table” with government officials and oil and gas representatives during these discussions, but to *be* the decision making process. In a press release on the second ballot initiative, one community rights participant declared that:

communities throughout Colorado and across the country are finding that, in the face of corporate exploitation, they don't have full authority, due to state preemption, to protect public health, safety and welfare, economic and environmental sustainability, property value, and overall quality of life. To do so without repeated challenges from corporate lawyers and our own state requires changes to our structure of law.

Like the statement from the original coalition, this statement references the importance of the "authority" or right of the people to oppose processes that threaten public health and personal safety. However, the primary right they speak of is not the right to protect, it is the **right to choose** the path of their community. In other words, this coalition seeks the right to control the future of their community rather than being expected to adapt to changes brought in by outside sources. According to one participant, this initiative was built to give localities

the right to make that choice, to be able to say “No. We don’t want this kind of industry here. We think it’s unsafe. We know that it’s a threat to our environment and our community. We don’t want that here.” Rather than having the state come in and say, “You don’t have the right to say that. We’re gonna come in and do whatever we want.” We believe that communities should have that right to say no.

It is important to note that none of the previous quotes specifically mention fracking as the threat; indeed, the word fracking is only mentioned once in the press release among a long list of other corporate processes that the ballot initiative could help communities oppose. To these leaders, the problem was no longer fracking itself, but a system that allowed corporations to frack without requiring them to gain permission from citizens or address their concerns. Rather than seeing the government as an aggravator of environmental threats, this coalition saw the current governmental system as the threat. For them, fracking was a symptom of a larger problem—the lack of responsiveness of local government to citizens’ desires, and conversely, the overly responsive nature of local government towards the desires of corporations. They still recognized that fracking was the conduit through which many individuals would get engaged in the movement, but as one participant stated:

Our initiative isn’t specific to oil and gas. It’s far more about the balance of power between corporations and people, and it doesn’t address just one industry, it addresses the system.

Another participant explained it this way:

We are trying to focus on the root of the problem a lot more. I think we will bring people in through their concern about fracking because that is most imminent, and it ties it all together. So it’s definitely part of the conversation, but I would say that we are going to drive it home with, you know, rights-based discussion.

This "rights-based discussion" of what legal powers communities and citizens should have access was central to this coalition’s discourse. They relied heavily on the discussion of democracy as a government by the people and for the people, emphasizing idealized

understandings of democracy that put decision-making power as close to the hands of citizens as possible. For example, one leader was quoted in a press release as saying:

{The initiative] gives people, not corporations, the authority to decide how best to protect their health, safety and welfare, their communities, and the natural environment. This is democracy in action.

The discourse of rights and democracy was spread through the network through personal connections, but even more importantly for central group members through an educational event called "Democracy School". All organizational leaders interested in joining the coalition were strongly encouraged to attend "Democracy School" before participating in coalitional decision-making. This two-day curriculum focused on the current state of corporate power and rights using hundreds of pages of historical documents. According to a description of the event, Democracy School:

Teaches citizens and activists how to reframe exhausting and discouraging single-issue work (increasing the minimum wage; opposing toxic dumps, quarries, fracking, mines, factory farms, etc.) in a way that confronts corporate control on a powerful single front: peoples' constitutional rights.

...Offers a new organizing model that helps citizens confront corporations' usurpation of the rights of communities, people, and the earth.

Covers the history of people's movements, the rise of corporate power, and the dramatic increase in organizing...by communities confronting fracking, GMOs, workers' rights, minimum wage, etc.

The backbone of Democracy School is a text with over 300 pages of historical writings reaching as far back as colonial times in the United States, and including writers like Thomas Paine and James Madison and documents like the Declaration of Independence and the Articles of Confederation. These documents are meant to trace the historical roots of corporate rights and power, and reference large-scale movements including the women's rights and civil rights movements.

The Democracy School text noticeably avoids founding documents of the “mainstream” environmental movement, and of the environmental justice movement. Though the discussions reference the environmental havoc wreaked by corporations—through GMOs, factory farming, and, of course, hydraulic fracturing—the documents themselves root their legitimacy in the early history and early goals of creating a democratic country. There are no documents centered on stewardship or conservation, on environmental justice, the precautionary principle, or the unequal distribution of environmental benefits and hazards by corporations. The Democracy School provides discursive resources that emphasize the political, legal, legislative sphere over all. These discursive resources allow, even encourage, the avoidance of conversations on power and privilege and inequality in our environment and in our system in favor of broader strokes that define the enemy singularly as the corporations and the governments that have allowed them to amass incredible amounts of political, economic, and even social power in our society.

The lessons and documents of Democracy School helped build a common discourse among participants around what the threat to their community really was—the systemic unresponsiveness of local governments to citizen rights and desires. This helped individuals and organizations from multiple issues including fracking and GMOs coalesce around a new goal: reinstating individual and community rights. Democracy School was clearly an important contributing factor to the adoption of new, divergent definitions of the threat posed by hydraulic fracturing, though both local and national organizations frequently downplayed the influence of the discursive resources provided by Democracy School.

Divergent Strategies

The differing perspectives of the threat posed by fracking contributed to vastly different approaches to opposing it. Though both coalitions were focused on action at the state level and

both were attempting to amend the state constitution using a citizen ballot initiative, their strategy for giving communities the power to oppose and/or regulate these processes diverged from there. The original local control coalition was interested in giving communities the power to specifically control and limit fracking within their city limits, and wrote a ballot initiative that focused on solely oil and gas development. The ballot initiative states that local governments can:

place restrictions on the time, place, or method of oil and gas development, including but not limited to the use of hydraulic fracturing, that are intended to protect their communities and citizens. Any such restrictions placed by local governments on oil and gas development are deemed not to be in conflict with the state's interests.

This language reiterates the right of citizens to protect their family and community from the threat of oil and gas development.

The community rights coalition, by contrast, was interested in creating broad rights for communities and individuals, thus counteracting the power of corporations in local government and breaking down the current system that failed to respond to environmental threats. The amendment was titled "Right to Local Self-Government", and the beginning of the amendment reads:

As all political power is vested in and derived from the people, and as all government of right originates from the people, the people have an inherent and inalienable right to local self-government, including in each county, city, town, and other municipality.

This language first establishes a broad base of power at the local level which emphasizes the right of citizens to self-determine what is best for their community. The ballot language continues by saying that the rights of communities include:

(a) the power to enact local laws protecting health, safety, and welfare by establishing the fundamental rights of individuals, their communities, and nature...

(b) the power to enact local laws establishing, defining, altering, or eliminating the rights, powers, and duties of corporations and other business entities... to prevent such rights and powers from interfering with such locally-enacted fundamental rights of individuals, their communities, and nature.

Nowhere in the amendment is fracking or oil and gas development mentioned. This ballot initiative instead focuses on elevating communities' rights to choose over the rights of corporations to operate.

The second coalition was distinctly aware of the connection between their strategies and their perceptions. As one participant explained, they knew they were “stepping outside of the box” strategically as soon as they adopted a new perspective of what was threatening their community. He went on to say:

It was compelling and a little nerve-wracking, but we already long concluded that we didn't want to take a half measure to this anymore. We feel that that kind of compromise is what has landed us in the situation where we are today. So that's kinda where we stepped off.

This analysis also allowed these leaders to identify the connections between the strategies and perceptions of the initial local control coalition. As one leader explained,

If you believe that the system isn't broken, or if you believe that it can't be changed, if you believe that it's broken and just aren't inclined to do anything about it, you tend to go down a particular avenue of political analysis and strategy.

By suggesting that the intersections between perceptions and strategies led to different "avenues", this participant illustrated the growing divide between coalitions. This interaction between diverging perceptions of the threat and diverging strategies accumulated to create a greater divide between the two coalitions. Though they remained personally friendly, organizationally they now saw themselves as fundamentally different rather than largely the same.

Divergent Perceptions of Political Opportunities

The strategies that each coalition employed were also closely tied to their perceptions of political opportunities available to them. The two coalitions and their member organizations shared a strong conviction that the only way to prevent fracking from harming communities was to ultimately create a framework at the state level under which communities could ban or place a moratorium on fracking without fear of retribution through lawsuits. However, the local control coalition felt much more constrained by the political opportunities available to them. Using Kadivar's (2013) model of perceptions of political opportunities, leaders within this movement subscribed to a "political institution" model, where state elites were closed off to influence and contentious action was unlikely, but political institutions were accessible to change through the ballot initiative process. Leaders within this coalition had a very specific idea about what was possible and what would be successful in state elections, and made decisions based on these ideas. For example, one participant said:

It's much easier to get people excited about [banning fracking] than it is about changing the constitution. And even though I too think corporations are overdoing it, in many realms, I don't think that's the first step to mobilizing people. They don't even think they'll win; they're just putting it out there. Well, we're into winning.

More than one of these leaders expressed interest and/or admiration for the ideas and strategies that they were pursuing, but none felt empowered to pursue them in the current political climate.

Another participant stated it this way:

We support what they're doing, but we think it's broad. You know, and even though we agree with some of the concepts, it's sort of radical. It's extreme... You're gonna have every industry fighting that initiative, because they're gonna say that its gonna inhibit business, and they're gonna throw everything but the kitchen sink, and maybe that too. ...I don't think that's their intent, but it's gonna be an easy battle [for the industry] to win. It doesn't poll well.

These perceived constraints were not new to this stage of the campaign, however. These same groups were more concerned at the local level about what would create the broadest base of support within the community to guarantee success at the ballot box. The same participant discussed the importance of polling data and working within the constraints of community support on the local campaign. She said:

Somewhere along the way the right wing painted environmentalists as crazy hippies. So we know from polling that if you even mention the word environment, I think the failure rate is about 80%. So you can't even say the word environment and win. But everybody is concerned about public health, safety, and property values. In other words, what's in it for me?

These organizations used their perception of community sentiment to guide the parameters of their campaign at the local level, a practice that carried into discussions about state level initiatives.

It was these very constraints that inspired community rights leaders to take action. Though they had, at times, made similar comments during local campaigns about what their community would “accept” or support at the ballot box, that line of discussion weakened with the introduction of the community rights discourse and strategy:

In my opinion, it's like—you know, throughout this whole movement, people have said this is what's possible and this is what not's possible. And I've learned to try not to listen to that, because if you believe what people say is not possible, you don't really do anything that's meaningful. Because we need to really do a lot of stuff that's not possible in order to overcome the problem both in Colorado and the whole country I think.

Because their focus was on systemic change, they recognized that their path would be, in some ways, more difficult. Their ballot initiative was seen as more “radical” and they recognized that powerful industries like the oil and gas industry would continue to create “new distractions, new ways to get people into those same predictable responses and controlled patterned behavior that

allows [extractive] industries to thrive”. Despite the legal and political challenges they knew they would face, one leader explained that:

We’ve decided that [the amount of opposition] doesn’t matter. We have to address this in a fundamental way. So we have to move ahead, we have to turn the page on the kinda failed strategies of the past.

Though the ballot initiative was an incredibly important part of their strategy, they saw the ballot initiative as one piece of a larger campaign.

We look at this ballot initiative as a start. It’s a way to change the conversation; it’s a way to change the direction of what is currently being called a debate that is far more a dog and pony show. You know, it’s, “To what degree do you want to give up your rights?” That’s what we call a debate. . . . “How much benzene is cool with you?” And we want to change that conversation over . . . into a civil rights movement, and that’s what’s taking place. And that’s what we’ve found, is that the conversation has already changed. Without a question it’s changed.

Community rights leaders did not necessarily expect to be successful immediately within the current political system, but they hoped to use the political opportunities they had to build up a base of support among community members that could open new opportunities and be mobilized in new ways in the future.

Ultimately, community rights leaders seemed to approach the reframing of the threat to communities as a net positive for political opportunities. Reimagining the threat as a threat to rights and democracy rather than a threat to the environment, public health, or property values opened up their perceptions of political opportunities. They saw the discussion of rights as an opportunity to transcend the discussion of environmental impacts and avoid conversations about proven or unfounded claims of harm. As one participant explained:

I’d be willing to bet quite a bit of money that if you asked people in [my community] if corporations should be granted special powers they would say no. So where a year ago we were spending much more time arguing with [people] about whether [fracking] causes birth defects, or all the other arguments the industry is comfortable with . . . now we’re saying we’re no longer comfortable with that, we’re talking about democracy.

Coalitional leaders recognized the importance of democracy and rights in American discourse, and drew upon that discourse to amplify the sense of injustice felt by community members who were denied change by local governments, and to elevate the sense of urgency.

Ultimately, coalition leaders also saw this new narrative as an opportunity to reach further across political lines. One participant explained that:

Really all we're talking about is human rights. And that's really nonpartisan. It doesn't matter if you're Republican or Democrat, having the right to clean air and clean water is pretty basic. And most people want some determination. So we're not really talking about the political issues, we're talking about the systems under which decisions are made about those issues.

The same participant discussed that, though the initiative was frequently labeled as too "radical" for Colorado, her experiences were the opposite. She felt that it actually allowed for a better connection with the average Coloradan, saying:

Typically when I talk to ordinary people about it they're surprised that we don't have [community rights] already. [People] will try to frame [it] as radical, but actually if you really talk to a regular person about it, most people think it's ordinary or think that should be expected. They're kinda shocked that that doesn't already exist. ...Typically when we are able to explain it to people, I see a lot of excitement.

The misgivings about their ideas and strategies seemed to only strengthen the resolve of the community rights coalition leaders. One participant described the experience of having their ideas discounted by their peers, saying:

there was a resistance [among other organizational leaders] to those ideas, the idea being that you can't change the system. You can't do it. Or, "Those are great ideas, but not today. The adults will take over from here".

Interestingly, this paternalistic response that discounts the ideas and contributions of citizens to government processes was precisely what angered community organizations about their experiences with companies and state and local governments. This further fueled their

determination that the ballot initiative was necessary to ensure that community members' rights were valued and respected.

To leaders, the rapid creation of new organizations within the community rights framework was a testament to the political opportunities provided by their strategy and analysis.

According to one participant:

We're filling a vacuum is really the way it feels. I think that community rights provides that type of leadership. It provides an analysis and a strategy, and with the ballot initiative, a way forward that people can easily get involved in. We have an educational component. So the ideas and the strategy are actually quite established. The structure sucks. It's like trying to build a skyscraper in a day and a half. But because the foundation of those ideas are so comprehensive it's easy for those people to join in. It's easy for people to say, "Wow, that makes sense. That explains it and I want to get involved".

This framework encouraged the building of a critical mass of citizens for community rights with the excitement and energy to create new political opportunities rather than feeling constrained or powerless by the existing political structures.

Divergent Partners

The discussions of divergences in perceptions and strategies have highlighted how ideas and actions affect network ties. As suggested by Kadivar (2013), those with similar perceptions and similar strategies found it easier to work together. However, this relationship is not one-dimensional. Networks were also important in changing perceptions and strategies. As organizations began looking to the state level, they received advice and knowledge from state and national partners who had more experience in developing campaigns. Organizational leaders weighed and incorporated this advice and information into their responses based, in part, on trust or mistrust of the source.

Leaders from both coalitions expressed mistrust of the “big green” environmental organizations that were perceived as too quick to compromise with companies and too slow to speak out against environmental hazards. As one local control leader explained:

I’m more suspicious now of some of the what we call, “Big Greens” than I was before. One is the Environmental Defense Fund, which has often joined these coalitions like in Illinois and other states where they claim to have sat down and done “reasonable negotiating” with oil and gas at the table and environmental groups at the table and, politicians at the table. And even though that sounds wonderful, I’m very suspicious of green groups that participate in that way.

Community rights leaders expressed a similar level distrust, not just for these environmental groups specifically, but for the part in the political system that they played. One participant called the environmental groups a “cottage industry” of polluting and extractive industries, saying that these groups existed to “petition the system, [to] ask the system, [to] request of the system, but never [to] actually change the system”. For community rights leaders, these organizations created the illusion that progress was being made while continuing to take away citizens’ rights to self-determine.

Though this distrust of large environmental organizations was shared, the boundaries for which organizations were considered “big greens” and which were trusted allies varied between the leaders of community rights and local control coalitions. Community rights leaders appeared to be more quick to characterize environmental groups as part of the problem rather than part of the solution. They considered at least one organization that was an integral part of the local control coalition to be problematic, hinting that this organization was more concerned with scoring political victories than creating with real change. One local control leader alluded to this, saying:

There’s some mistrust, but I don’t really know why that is.... There was a point in the campaign where [an environmental organization] wanted us to commit—that if we thought we didn’t have the resources to bring it across the finish line that we shouldn’t put it on the ballot. I think because there was concern about having a

losing initiative on the ballot. I was pissed off at the time, but I can see where [they were] coming from. But this initiative wasn't just a political maneuver.

Generally, the leader of this environmental organization was highly regarded by local control leaders for pouring time, effort, and resources into the campaigns and willingly providing advice and mentoring to individuals. This relationship of trust led to a high regard for their advice among local control leaders, which led community rights leaders to note that local control leaders were “much more influenced by mainstream environmental groups that essentially argued that you can't change the system and that you need to be what they call ‘realistic’.”

Community rights leaders were not influenced by the suggestions for “realism”. Instead, they trusted the advice and knowledge of another national partner with experience passing local community rights amendments across the country. Multiple leaders emphasized the usefulness of their discussions with this organization, saying that it was:

the first time that somebody explained to us that we weren't alone in this, and that it was much bigger than just fracking, that this was an entire system of law that gives enormous privilege and authority to corporations and then, of course, the people are supposed to respect that. So that was very emboldening. And they also had a strategy about addressing our problem, and addressing the issue of hydraulic fracturing attempting to start to fix the legal system that forces fracking on communities.

This analysis and strategy was important to guiding state-level actions, but ultimately it was not just advice from one organization that led to the adoption of new frameworks and strategies. Importantly, this knowledge and advice was also coming from inside the organization from a member of the steering committee. One participant discussed how instrumental it was to have a core leader with an understanding of how fighting fracking tied into fighting other industrial processes:

She was the only one in our group that was able to explain how the situation here is exactly the same as in Pittsburg, California or Mora County, New Mexico or Pennsylvania. She was the first one who really articulated that..... And she was very strong in defending those ideas and those approaches, and it convinced me.

It is important to stress that organizational leaders were not passive recipients of this information. All of the knowledge and advice received was filtered, not only through their opinion of the trustworthiness of the source, but also through their own perceptions and experiences.

In part, both the adoption of new strategies and the formation of important partnerships could have also been shaped by past experiences of working with various political organizations. Leaders from the local control coalition were much more likely to have political experiences with the Democratic Party. Several of these participants mentioned investing significant time into one or both of Barack Obama's presidential campaigns. Conversely, leaders of the second coalition were much more likely to have experience in more contentious types of organizing that purposefully located themselves outside of the traditional political system. This included, for example, participation in the protest of the World Trade Organization (WTO) meeting in Seattle, which shut down the streets of the city. These political experiences could have both predisposed individuals to trusting certain types of organizations, and impacted the perceptions of the quality of advice.

Divergent Ideologies

In the early stage of the campaigns, individuals and organizations were able to bond over a shared motivational discourse—the protection of place attachment. As the local control coalition shifted their focus to the state level, they stayed true to these narratives. Their press releases called out fracking as a danger to “our homes or schools” and to “your family or property”. This emphasized protecting individual relationships to specific communities.

Community rights leaders, however, deemphasized the narratives of threats to individual relationships to place and began expanding their discourse beyond protecting physical and social

place to protecting place and community as the source of the right to self-determination for citizens. The narrative was no longer about how the community was uniquely or suddenly in need of protection, but about how problems that are seen across localities could be solved by action at the local level. As Martin found in his exploration of place-framing among neighborhood organizations:

While [organizations] cited important, distinctive features [of their community]...none of the organizations argued that Frogtown had characteristics or faced problems unlike those of any other place. Instead, they discursively situated the particular configuration of history, architecture, people, economy, and problems at the scale of the residential neighborhood” (Martin 2003:746).

Community rights leaders were able to discursively situate the problems of fracking and factory farming and GMOs into the larger context of rights, and to specify local communities as important sites for collective actions to protect the right to self-determination. Though the ballot initiative could be used to protect physical communities from environmental degradation, the focus was on protecting a more abstract notion of community as a place of safety and control for citizens (Seamon 1979). This meant that by participating, individuals were investing both in the protection of their current community from possible harm, but also committing to building a “higher form” of community that was more safe because it was more under the control of its citizens.

According to the narratives put forth by community rights leaders, community as an *ideal* was being threatened because the rights of citizens to protect community were being threatened. This designation of local communities as the ideal source of democracy and rights created a moral imperative to protect community wherever it is located, and to protect it from any threat, not just from the threat of fracking (Hummon 1990). As one participant explained:

The concept of [community rights] is that you could apply that to any community. Any community should have the right to say no...anything that threatens a community, you should be able to make that choice.

Protecting the ideology of community rather than physical community allowed community rights leaders to still speak to people about their opposition to fracking, but also to connect with other movements and other communities and states. As one participant concluded:

That's the nice thing about [the initiative], that it allows us to have this conversation on multi-faceted issues. So, some people are getting factory farmed, and some people are affected by cyanide in gold mining. The sky's the limit with this issue. Anyone that's being exploited by corporations you can talk to. So basically it just allows us to open up the conversation more and talk about how this is all the same thing.

This ultimately led to the community rights coalition joining a national network of other state community rights coalitions to recognize the need to protect community rights across issues.

According to one community rights leader, the ultimate goal of their coalition and collective action was:

To help people, and fight alongside of them. We want to help people create power and feel it and define it and direct it themselves. You see it when you go to these communities all over Colorado. Once people get the ideas there's usually a moment where all of the baggage and bullshit that they've been told falls off of them, and they're free. You can literally see it. They start to smile, they get super energized, they get excited. And that's where we want people to be. We want people to feel empowered. Screw feeling empowered, we want them to *be* empowered. The system wants them to feel empowered; we want them to be empowered. We want to build genuine profound deep relationships all the way around the state and beyond, because corporate power doesn't check itself at the Colorado border, or the state border.

As this quote demonstrates, the community rights framework left behind discussions of protecting the safety of specific communities and specific groups of people to generate a moral commitment to an ideology of community that promotes open participation, transparency, and self-determination.

Conclusion

Though neither coalition was successful in getting their initiative on the ballot in 2014, both coalitions remained active and undeterred throughout the remainder of 2014 and into 2015.

Organizational leaders remained committed to protecting their community from threats, with several participants acknowledging that it may take years for them to reach their goals.

Divergences in the definitions of the threat, chosen strategies, perceptions of political opportunities, network partners, and ideologies contributed to new and disparate responses among citizens in Northern Colorado attempting to protect their community from the threat of hydraulic fracturing. These divergences were intimately entwined; participants frequently could not discuss the change in their perceptions of threats without also discussing the strategy they planned to employ and the opportunities they saw (or did not see) within the political system to make these changes; conversely, the opportunities they perceived impacted the type of action they employed and impacted their willingness to redefine the threat.

The relationship between these factors was reciprocal, making it nearly impossible to isolate the impact of any one factor in the overall response to threats.



Figure 5.1 Responses to threats are built upon the interplay between perceptions, ideology, and relationships.

As demonstrated by Figure 5.1, when these factors coalesced, it provided a firm foundation on which to mobilize collective action. However, the interrelations between them required that, when one shifted, others also shifted in response to keep this foundation coherent.

CONCLUSION

I think that the argument that we could no longer have a say in our lives deeply offended people. I think that it was a disillusionment for a lot of folks who read their elementary school textbooks and were told that we live in a free democratic society—until you try to use those freedoms that you are told you have. I think a lot of people were offended by the idea that they couldn't say no to this.

Citizens in Northern Colorado organized against hydraulic fracturing based on feelings of intense vulnerability to environmental and health risks from hydraulic fracturing, feelings that were only exacerbated by a perceived lack of government response to their concerns. This thesis described some conditions that facilitated their mobilization, as well as contributors to the two specific veins of citizen responses to hydraulic fracturing seen in Northern Colorado.

Exploring the initial phase of collective action that focused at the local level uncovered some factors that contributed to unity among initial responses to this threat—namely shared motivational discourses, shared goals, shared political and educational experiences, shared perceptions of political opportunities, and shared resources. Examining the changes that occurred as organizations shifted their focus to state level action revealed four important elements that contributed to divergent responses —specifically inconsistencies in organizational perceptions of both threats and political opportunities, divergences in strategy and ideology, and relationships of trust with different network partners.

Taken together, these factors showcase the interdependence of ideas (perceptions, ideology, etc.), relationships, and action (strategies, etc.) in motivating collective action against hydraulic fracturing. There was no single linchpin upon which responses to hydraulic fracturing hinged—not the ideas of how a place should remain or be, not the relationships that provided access to knowledge and resources, and not the strategies themselves. Rather, these factors were interlaced to create coherence among narratives and strategies. The relationship between these

factors was not linear or rigid; citizen responses were balanced upon the interplay between them. In contrast to characterizations of negative responses to the threat of extractive industries as one-dimensional, knee-jerk “NIMBY-ism”, this research emphasizes the complexity of responses and the variations in how citizens interpret and respond to the circumstances surrounding threats, including the responsiveness of the political system and the perceived level of harm.

In the following paragraphs, I will explore key findings of this research regarding the interchange between ideas, relationships, and actions, first during the local campaign and then after organizations shifted their focus to the state level. I will then explore implications for the relationships between place, ideology, and social movements broadly before discussing the specific implications for environmental justice.

Ideas, Relationships, and Actions in the Local Stage

In the local stage, organizations were closely aligned in their ideas, relationships and actions, which provided a strong basis for cohesive action across communities. At this stage, shared ideas about what organizations were protecting—community, family, and health, among others—and what was the threat to these—hydraulic fracturing—provided some foundation for building relationships for unified collective action. These relationships provided conduits for resources to support action, and supported the transmission of ideas between communities. In addition, shared actions and experiences fostered relationships and encouraged similar perceptions and ideas to bloom across organizations. Ideas, relationships, and actions all supported each other, contributing to a cohesive response by citizens in different local contexts. The following paragraphs explore the reciprocal relationships between ideas, relationships, and actions during the early stages of collective action.

Sense of Place and Mobilization

Participants repeatedly demonstrated that sense of place was an important factor in their interpretation of hydraulic fracturing as a threat. Across different types of relationships to place and different strengths of attachment, citizens universally expressed concern about changes to place that could occur with increased drilling activity. In concurrence with Milligan's (2003) research, individuals were concerned that changes to place could disrupt their existing interactions with place and render irrelevant their current meanings and associations with place. This included concerns about negative impacts on the natural environment, social character, and overall distinctiveness of their place, as well as concerns about remaining physically safe and secure in their place. This corresponds with past research that has demonstrated that individual attachments to place motivate both place-protective actions (Devine-Wright 2009) and participation in social movements more broadly (Gieryn 2000; Norton and Hannon 1997; Stedman 2002).

Sense of Place and Discursive Resources

These findings move beyond understandings of individual relationships to place to demonstrate how people use attachment as a discursive tool to motivate broader community action through commitment to place. Sense of place provided citizens with important narratives regarding their place, especially regarding the features that were worth protecting, like the family history that they shared with a place or the environmental or social characteristics of place. These narratives were used as discursive tools to justify their responses to threats as reasonable and necessary, as well as to motivate participation among community members by calling on them to protect their own relationship to place in whatever form that relationship took.

This aligns with previous discussions of place-framing as an important process for localizing threats and thus motivating citizen responses at the local level (Martin 2003). For most participants, it was only through an understanding of the threat of hydraulic fracturing—and the necessary responses to it—as local that they first engaged in place-protective actions. Multiple participants had heard of hydraulic fracturing before it was a proximate threat, but because it was not nearby, there were no ways to relate it to a specific place, or to tie it to specific actions at the local level that would make a difference. Once hydraulic fracturing began advancing towards their place and their community, citizens were able to use place-framing to position their community as a necessary site of resistance and prompt collective action.

Sense of Place and Network Relationships

Though social movement networks are often (though not always) very place-based phenomena, networks have been infrequently linked to the processes of perceiving, interpreting, and acting in protection of places. This research contradicts existing research that suggests that networks are more salient for mobilization than other recruitment methods (Lewicka 2005). Data suggest that place-protective social movements may use sense of place as a discursive tool to build new networks for collective action. Though networks may be more important for bringing peripheral members into existing organizations, sense of place was much more salient for the original creation of organizations and networks. Relationships to place provided a common discursive resource (despite their differences) that individuals could use to articulate their desire to protect their place to others, and the similarities of these discursive resources were important for bonding citizens together into networks across differences.

Ideas, Relationships, and Actions during the Extra-Local Stage

The split between organizations during the extra-local stage was the result of the misalignment of ideas, relationships, and actions between organizations. As community rights organizations progressed through their local campaigns, their ideas about the nature of the threat to their community began shifting, which impacted their perceptions of the most effective political action to take. These changes affected which relationships they fostered, and ultimately contributed to stronger relationships with new network partners that supported these new ideas and strategies. Soon, their membership in the local control coalition was intensely misaligned with their new platform of ideas, relationships, and actions. The creation of the new coalition allowed network partners to realign so that both groups had a cohesive foundation on which to organize.

Community Ideology, Perceptions of Threats, and Strategies

After experiencing frustration with the lack of responsiveness of local governments, community rights leaders reinterpreted the threat to their community. It was no longer an environmental or health threat specifically, but a political threat brought about by an out-of-touch political system. This change in the perception of threat coincided with a reinterpretation of what was being threatened, and was inseparable from the adoption of new strategies to address this new threat. No longer was it about protecting individual relationships to place. Community rights leaders expressed an obligation to protect a collective interpretation of what community and place *should* look like, which aligns with Hummon's (1990) discussion of the connection between ideology and action.

Community Ideology, Place-framing, and Political Opportunities

The results of this research suggest a powerful link between community ideology and place-framing. The use of community ideology as a motivator for action expanded the ability for these organizations to engage in place-framing, expanding their ability to create relationships across places and movements. Because the community rights platform was about protecting the ideal of community from corporate processes and government inaction, any community could be reinterpreted as a site for collective action. Community ideology allowed community rights leaders to discursively situate any social problem into the larger context of rights, and to specify local communities as vital sites for collective actions to protect the right to self-determination. This increased leaders' perceptions of political opportunities to include all communities across the state and even the country, not just communities in Northern Colorado with significant opposition to hydraulic fracturing.

Protecting Place, Community, or Home?

Existing understandings of individual relationships to place (Cross 2001b) and how that impacts the perception of threats (Cross 2001a; Devine-Wright 2009) had some explanatory power in understanding citizen responses to the threat of hydraulic fracturing. However, the specific emphasis on government protections against threats to health and safety fell outside these existing understandings of concerns about changes to the social or natural character of place.

Seamon (1979) suggests that the place(s) a person labels as "home" provide certain needs like regeneration (or safety) and appropriation (or control). Though we do not actively think about these attributes of home, it is in part the fulfillment of these needs that supports the strong bond between individuals and their homes (Seamon 1979).

Citizen responses to hydraulic fracturing in Northern Colorado suggest that the need for regeneration and appropriation could be extended beyond the typical definition of home to the community sphere. Citizens expect to feel safe and in control in their communities just as they do in their homes, but often do not consider this need until it is threatened (Seamon 1979). In Northern Colorado, citizens began to feel these needs being threatened, and called upon their local governments to restore their feelings of safety. When local governments did not respond with increased limitations on fracking, citizens felt their appropriation/control also being threatened, and used their networks to explore other avenues for restoring these feelings.

As the two coalitions split, they relied upon the discursive resources provided by these (opposite) expectations of home. Both aligned their dialogues on the central principle of their rights as citizens of a community. However, the local control coalition focused on their rights to safety in their home or community, specifically safety from adverse health impacts, while the community rights coalition was focused on protecting a more abstract notion of community as a place of control and self-determination for citizens (Seamon 1979). This suggests that more research is needed to understand overall the relationships between sense of place, discursive resources, and collective action, as well as to discern which characteristics of individuals and organizations causes them to value control over safety or vice versa.

Ideas, Relationships, Actions, and Environmental Justice

These two expectations of home align with two important environmental justice principles, suggesting that, though these groups are considered by some to be a typical, privileged NIMBY movement, they maintain important connections to the ideals of environmental justice.

The need to protect *safety* within one's community is related to the precautionary principle, which places the highest value on community safety and emphasizes both preventing harm before it occurs and placing the burden of proving safety on polluters (rather than requiring communities to prove that a process or action is harmful) (Bullard 2007). For organizations fighting potential rather than existing harms, the precautionary principle is an easy framework to adopt, and one that opens up political opportunities. Though they didn't use the term "precautionary principle", local control leaders recognized that talking to citizens about safety and waiting for scientific proof was easier than talking about potential environmental degradation, and that promoting a "time out" to find out the true impacts and establish safety was considered more "reasonable" than asserting that fracking was inherently dangerous. Their promotional materials reflected this, emphasizing protecting communities first until it was clear the process would have no negative implications.

This narrative emphasizing protection from harm was also aligned with the traditional environmental justice focus on distributional justice (Bullard 2005). Most citizens organizing against the practice were not individuals of color, and were not part of the most marginalized groups in the state or even the community. However, when they compared their rights to environmental benefits and to protection from environmental harm to the rights of corporations, these individuals felt that they were being asked to bear a disproportionate segment of the risk. They saw their communities as "sacrifice zones" that would be destroyed while both corporate leaders and governments reaped the profits. However, it is likely that this interpretation was not emphasized by these groups because of the relative nature of their distributional claims and perceptions that this approach would close political opportunities to talk with individuals across party lines while opening their organizations up to more NIMBY criticism.

Similarly, the need to protect one's feelings of *control* over a home community is intertwined with the environmental justice narrative of procedural equity, which emphasizes the need for community decision-making to be inclusive and equitable (Lake 1996). By shifting their ideology and strategy away from safety and towards control, the community rights coalition opened up new narratives that liberated them from getting mired in conversations on safety and proof and allowed them to focus instead on participation and rights for community members in making these decisions. The shift in the foundation of their response allowed them to highlight that individuals were currently unable to control the impacts they experience and unable to engage in the political process in an equal way with a corporation.

Though this is a more palatable narrative for less marginalized groups, community rights leaders still did not engage explicitly with these environmental justice narratives, organizations, or strategies. Indeed this shift appeared to move organizations farther from discussions of environmental justice. Though at times community rights participants discussed the rights to environmental benefits like clean air and clean water, as well as the importance of the right to protection from environmental harms, they preferred to isolate the linkage between their movement and civil rights alone rather than environmental justice as an extension of civil rights. As the foundation for their collective action shifted away from specific environmental harms and towards broader, rights-based conversations, the distributional narrative became more about the distribution of rights than the distribution of environmental hazards or benefits.

This was seen in the narrative focus of Democracy School. Did not reference important documents from the environmental or environmental justice movements. Focused solely on historical documents that skip over more recent environmental and environmental justice

struggles and instead trace the legacy of their actions to colonialism, the fight against slavery, and the women's rights movement.

It is likely that this omission is purposeful. Though the tie to American history strengthens the connection to rights and democracy, the distance from the environmental movement is telling. Many participants openly discussed their frustrations with the "Big Greens" and their disillusionment with the environmental movement and its lack of success over time. Participants both in the local control and the community rights movement often resisted the environmentalist label and felt the need to distance themselves from the "crazy hippies" and "tree huggers" of the past, which likely contributed to this selective use of discursive resources.

What is perhaps most interesting is that these critiques are among the central critiques leveled by the environmental justice movement against mainstream environmentalists. Like the environmental justice movement, they attempt to locate solutions outside of the system. Similarly, while they critique the model of mainstream environmentalism and environmental justice, they themselves are pursuing some of the same methods that both of these organizations utilized in their earlier histories. Both environmentalism and environmental justice sought to use the courts to reinstate their vision of our relationship with the local environment, and succeeded in creating stricter federal regulations and preventing the siting of environmental hazards in communities of color. Similarly, while utilizing the ballot box in an attempt to create broad community powers to reinstate their feelings of control over their homes, some community rights organizations are also pursuing lawsuits that aim to use the court systems to eat away at corporate control over their communities.

The simultaneous embrace of environmentalist and environmental justice methods while isolating themselves from the discursive resources available through connections to both

movements is telling. Community rights organizations were privileged to have a multitude of discursive resources available to them—discursive resources related to conservation and the environment, the rights of nature, place and community attachment, and political power and inequality. Rather than utilizing all of these discursive resources, they selectively employed discursive resources. Their privilege allowed them to claim a relationship to the civil rights movement while rejecting relationship to the environmental justice movement that carried on its legacy. Their privilege allowed them to remove discussions of societal inequality from the discussion of rights. They united these discursive resources to those provided by place attachment and place-protection to create a new place-protection narrative, of protecting the right to control what happens in your community in the face of impersonal corporate power.

These organizations resist both NIMBY characterizations and environmental justice frameworks, emphasizing the importance of place and community. It is clear that more research is needed to understand the complex relationship between place-protection and environmental justice among less-marginalized populations, as well as to understand how discursive resources are employed or rejected among these populations.

Conclusion

Studying an ongoing social movement provided a unique opportunity to understand how citizens initiate and revise responses to a perceived breakdown in their relationships with governments and corporations. This research emphasizes that citizens in Northern Colorado experience the threat of hydraulic fracturing as a threat to their overall experience of place, community, and home. This, combined with the lack of government response to their concerns, motivated citizens to mobilize to fill this perceived vacuum and provide protection to the places to which they were connected.

Despite this common experience of threat, organizations construct responses to these threats in very different ways based on the interactions between ideas about what is being protected and what can be achieved, relationships with other political players that provide access to knowledge and resources, and the actions they pursue to create change. These responses are not static, but continually negotiated to create a coherent basis for collective action, so a shift in one element cannot occur without reconciling that change with other elements.

Though the scope of this research was small, this thesis provides important early linkages between relationships to place, discursive resources, perceptions of political opportunities, and networks. The linkages between these developed in this case study has important implications for the way that we study other “place-protective social movements”, specifically those responding to increased hydraulic fracturing in the western United States. Further research into similar movements, both related to hydraulic fracturing and related to other environmental threats, has the ability to begin untangling the relationships between place, community, and home to understand how each provides access to different or similar discursive resources that can be used to motivate place-protective actions. In addition, further studies could provide a more comprehensive understanding into how organizations negotiate ideas, relationships, and action to create a cohesive foundation for collective action, and into the relationships between place-protection, environmental movements, and environmental justice. It is clear that in thinking about the “why” of hydraulic fracturing and other place-protective social movements, it is increasingly important to consider the influence of the “where”.

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APPENDIX A: DEMOGRAPHIC INFORMATION ON CASE STUDY COMMUNITIES

Table A.1: Demographic Information on Case Study Communities

	Population	Education (% Bachelor's degree or higher)	Median Household Income	Race (%White)	Median Value of Owner- Occupied Housing Unit
Colorado	5,355,866	37	\$58,443	87.7	\$236,200
Boulder	105,122	71.8	\$56,312	88.0	\$489,400
Longmont	90,237	37.20	\$58,698	83.3	\$238,900
Lafayette	27,081	55.8	\$70,623	85.6	\$264,300
Erie	20,493	56.3	\$103,796	89.2	\$340,800
Fort Collins	152,061	51.9	\$53,780	89	\$247,800
Loveland	72,651	32	\$54,970	91.5	\$210,400
Greeley	96,596	25.8	\$46,272	79.1	\$166,300

APPENDIX B: RECRUITMENT MATERIALS

[Intro Email]

Hi, as a member of [organization name], you are being asked participate in a research study conducted by myself and Jennifer Cross, PhD. entitled: Exploring Ties Between Northern Colorado Groups Organizing Against Fracking.

We will be interviewing leaders and members of these organizations, and would like you to participate. We received your name and email address from _____, as someone who would have insights into [organization name] and its relationship with other organizations. We would like to talk with you about your organization's experiences working independently and collectively to create change in your community.

We have attached a letter that details the purpose of the study and your rights as a participant should you choose to participate. We will be telephoning or emailing you in the next few weeks to answer any questions you may have and discuss your participation in the study.

If you have questions about the study, you can contact any member of the research team at the contact information listed below. If you have any questions about your rights as a volunteer in this research, contact Janell Barker, Colorado State University's Human Research Administrator at 970-491-1655.

Thank you for your time and we will be in contact soon.

Sincerely,
Alyssa Stephens and Jennifer Cross

Jennifer Cross, Ph.D.	Alyssa Stephens
Department of Sociology	Department of Sociology
Colorado State University	Colorado State University
Fort Collins, CO 80523-1784	Fort Collins, CO 80523
(970) 491-6895	(775) 530-6334

[Telephone Script]

Hello, thank you for calling me about my research. Did you receive a letter/email from someone in the organization recently describing the study?

[If received letter]

Great. Do you have any questions concerning the study?

The next step would be to see if you would be willing to sit and talk with me for 30-80 minutes about your experiences as a member of [organization name] working with other local organizations. Your participation in this study is completely voluntary and confidential.

Would you be willing to participate?

[If says yes to participate]

Thank you so much for your time and participation. When would be a good time to meet with you?

We can meet anywhere that is convenient for you. Do you have someplace in mind?

Great, I will meet you then. Do you have any further questions for me today?

Good, I will see you then. Do you still have the letter with our contact information?
[if not] My number is 775-530-6334 if any questions come up before we meet.

Thanks again.

[If says no to participate]

Thank you very much for your time and I hope you have a good day.

[If did not receive letter]

I'm sorry you did not receive that. This study is being conducted by myself and Dr. Jennifer Cross. We are documenting the relationships between organizations working to ban or limit hydraulic fracturing in their community. We are talking with leaders and members of Northern Colorado organizations about their experiences. You were identified by _____ as someone who might have some insights for us about these relationships.

Do you have any questions concerning the study?

The interview will take approximately 30 to 80 minutes of your time. The next step would be to see if you would be willing to sit and talk with me for 30-80 minutes about your experiences as a member of [organization name] working with other local organizations. Your participation in this study is completely voluntary and confidential.

Would you be interested in participating?

[If says yes to participate]

Thank you so much for your time and participation. When would be a good time to meet with you?

We can meet anywhere that is convenient for you. Do you have someplace in mind?

Great, I will meet you then. Do you have any further questions for me today?

Good, I will see you then. My phone number is 775-530-6334, if you have any questions before then.

Thanks again.

[If says no to participate]

Thank you very much for your time and I hope you have a good day.

[Snowball Intro Email]

Hi, as a member of an organization working against fracking in your community, you are being invited to participate in a research study conducted by Alyssa Stephens, a graduate student at Colorado State University and Jennifer Cross, PhD. entitled: Exploring Ties Between Northern Colorado Groups Organizing Against Fracking.

You are receiving this [letter/email] because someone in your organization recommended you as having insights into [organization name] and its relationship with other organizations. Alyssa will be interviewing leaders and members of these organizations, and would like you to participate. She would like to talk with you about your organization's experiences working independently and collectively to create change in your community.

Attached is a letter that details the purpose of the study and your rights as a participant should you choose to participate. **If you think you might be interested in participating, please contact a member of the research team at the contact information listed below.** At that time, they would be happy to answer any questions you may have and discuss your participation in the study.

If you have any questions about your rights as a volunteer in this research, contact Janell Barker, Colorado State University's Human Research Administrator at 970-491-1655.

Thank you for your time,

Sincerely,
Alyssa Stephens and Jennifer Cross

Jennifer Cross, Ph.D.
Department of Sociology
Colorado State University
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APPENDIX C: INTERVIEW MATERIALS

[Cover Letter]

You are being asked to participate in a research study conducted by Alyssa Stephens and Jennifer Cross, Ph.D., entitled: Exploring Ties Between Northern Colorado Groups Organizing Against Fracking. The purpose of this study is to understand the nature of relationships between these organizations. We would like to talk with you about your organization's experiences working independently and collectively to create change in your community. Your responses will help us better understand how local organizations form and negotiate relationships with other local organizations.

Today, I will be talking with you about the rewards and challenges of working against fracking with other organizations. This interview will take approximately 40-80 minutes of your time. You may be asked for one or two follow-up interviews to expand on your responses from today or provide further details. These follow-up interviews, if necessary, will take approximately 5-20 minutes. Your total time commitment is 1- 3 hours.

Your participation in this research is voluntary. You may withdraw your consent and stop participating at any time without penalty or loss of benefits to which you are otherwise entitled. Your responses will be kept confidential unless you otherwise wish to be identified.

With your permission, this interview will be recorded with a digital voice recorder. We will only record the interview with your permission. The audio files of this interview will be kept in a secure location and will not be shared. You have the right to refuse to answer any question(s) for any reason. You also have the right to refuse to be audio recorded.

There are no direct benefits to you for participating, but the information gathered may be beneficial to other local organizations as they work together to create change in their respective communities. You do not face any risks for participating nor are there any costs to participate. It is not possible to identify all potential risks in research procedures, but we have taken reasonable safeguards to minimize any known and potential, but unknown, risks.

If you have questions about the study, you can contact any member of the research team at the contact information listed below. If you have any questions about your rights as a volunteer in this research, contact CSU IRB at RICRO_IRB@mail.colostate.edu; 970-491-1553.

Thank you again for your time and participation in our study.

Sincerely,
Alyssa Stephens and Jennifer Cross

Jennifer Cross, Ph.D.	Alyssa Stephens
Associate Professor	Graduate Student
Department of Sociology	Department of Sociology
Colorado State University	Colorado State University
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[Interview Schedule, Version 1]

The first few questions will provide some background information on your personal experiences in this organization.

Tell me how you learned about fracking.

How did you decide to take action on fracking?

Do you consider yourself to be an activist? Why or why not?

Do you consider yourself to be an environmentalist? Why or why not?

How did you become part of [organization name]?

How long have you been a part of this organization?

Did you know individuals who were already a part of that organization?

Have you recruited other individuals to this organization?

Tell me a little bit about the values and mission of [organization name].

What aspects of these are important to you?

How important to you is being a part of [organization name]?

Tell me about the other members of your organization.

What values do you share with them?

What viewpoints do you share?

What viewpoints do they have that are different than yours?

Tell me about how your organization works together internally.

How are decisions made?

Do most people agree about what should be done in a given situation?

Tell me about the goals of your organization.

What do you hope to achieve in the immediate future?

What do you hope will be the legacy of your organization?

Now we'll discuss your organization and its relationships to other organizations.

What are the similarities between your organization and other local anti-fracking organizations? What are the differences?

What values do you share? What values are different?

What goals do you share? What goals are different?

Tell me about how you originally started working with other organizations.

How did you meet activists from other organizations?

What were the earliest forms of these relationships? What did you do together?

Tell me about the ways you work with other organizations now.

How has it evolved from those first encounters?

How frequently do you communicate with other groups?

Tell me about what these relationships look like. Are they more formal or informal?

Tell me about the positive things that have come out of your connections with other organizations.

What have you been able to accomplish that you wouldn't have been able to do by yourself?

What have you learned through your connections with other groups?

Which relationship has been most successful? Tell me about why it has been so successful.

Tell me about the challenges of working with other organizations.

What has been challenging about working with other groups?

What have you disagreed about?

What relationship has been most difficult? Tell me about why it has been so difficult.

Are there any organizations that you don't feel comfortable working with? Why or why not?

Tell me about the ways you think the relationships with other organizations could be improved.

What relationships do you wish existed?

In your opinion, what is the most important aspect of your organization having a successful relationship with another organization?

What should be shared? Attitudes? Values? Goals?

APPENDIX D: NETWORK SURVEY

[Network Survey]

Northern Colorado Fights Fracking!

1. Which of the following fracking-related events did you attend in 2013?
2. What other fracking-related events did you attend in 2013? Please include only events involving two or more fracking- focused community groups (social events, informational forums, public outreach events, etc.).
3. What fracking-related events did you attend in 2014?
4. What other fracking-related events did you attend in 2014? Please include only events involving two or more fracking- focused community groups (social events, informational forums, public outreach events, etc.).
5. Please list up to three people involved in fighting fracking who have provided support to you personally during your involvement in this campaign/movement.
6. When did you meet each of the people listed in the previous question?

I met them before I started organizing against fracking	I met them during the local campaign in my community.	I met them after the local community campaign and before the state campaign.	I met them during the state campaign	I met them after the first state campaign.	Not applicable

7. How would you categorize your relationship with each of these people?

I can ask this person for advice on organizing/campaigns	I can count on this person to provide encouragement or moral support.	I hang out with this person socially (outside of organizing).	I can talk to them about personal life problems.	I expect to remain friends with this person after I leave this organization/campaign.

8. What other aspects of these relationships do you think are relevant or interesting?

9. Please list four people involved in a different organization fighting fracking (national or local) who have provided support to during your involvement in this campaign/movement.

10. When did you meet each of the people listed?

I met them before I started organizing against fracking	I met them during the local campaign in my community.	I met them after the local community campaign and before the state campaign.	I met them during the state campaign	I met them after the first state campaign.	Not applicable

11. How would you categorize your relationship with each of these people?

I can count on this person to get tasks done.	I ask this person for advice on organizing/campaign activities.	I expect to continue organizing with this person on other community issues in the future.	I hang out with this person socially (outside of organizing).	I can talk to them about personal life problems.

12. What other aspects of these relationships do you think are relevant or interesting?

13. Now, think about the organizations at the state, local, and national level that you worked with. Please list the four organizations to whom your organization PROVIDED the most support—whether it be financial support, volunteer support, advice, etc.—throughout local and state campaigns.

14. Now, think about the organizations at the local, state, or national level that you worked with. Please list the four organizations from whom your organization RECEIVED the most support--whether it be financial support, volunteer support, advice, or moral support--throughout local and state campaigns.

15. Please rank the organizations you PROVIDED support to, from the most to the least support given.

16. What type of support did you PROVIDE to each organization?

Advice or mentoring	Online promotion of events, etc.	Materials	Volunteers	Fracking knowledge/expertise	Legal advice	Financial assistance	Building connections

17. What other types of support (if any) did you PROVIDE to these organizations?

18. Please rank the organizations that you RECEIVED support from, from the most to the least support received.

19. What type of support did you RECEIVE from each organization?

Advice or mentoring	Online promotion of events, etc.	Materials	Volunteers	Fracking knowledge/expertise	Legal advice	Financial assistance	Building connections

20. What other types of support (if any) did you RECEIVE from these organizations?

21. In which community do you currently live?

22. How long have you lived in this community?

23. In which communities did you attend City Council, County Commissioner, or other meetings of governing bodies?