

ORGANIZING FOR SUSTAINABLE CHANGE:
COLLECTIVE ENTREPRENEURSHIP IN THE GERMAN ENERGY SECTOR

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Many established markets are seeing a rise in alternative organizing models to dominant corporate structures, aimed at promoting sustainable change from the ground up. Collective entrepreneurship initiatives are arising as social activists seek to address sustainability challenges in their local communities through business means. Commensurate with the emergent nature of this phenomenon, I rely on qualitative studies of two examples of collective enterprise to inductively develop new theory in this nascent field of research. In particular, a study of Renewable Energy Source Cooperatives in the transitioning German energy sector puts forward new theory on how collective social entrepreneurship initiatives generate and sustain member participation. A study on Bio-Energy Village initiatives in the same market context develops theoretical insight into how such collective entrepreneurial ventures can move individuals to disrupt the extant institutional arrangements they have taken for granted. Collectively, these studies advance our understanding of how community-based, collective entrepreneurship can break with unsustainable consumption patterns of the past and generate unprecedented citizen involvement in change towards greater sustainability in established markets.

BIOGRAPHICAL SKETCH

Bjoern C. Mitzinneck earned a Bachelor of Science degree in Economics and Management from Otto-von-Guericke University Magdeburg, Germany in 2011. In 2013, he graduated with a Master of Philosophy (distinction) in Innovation, Strategy, and Organization from University of Cambridge Judge Business School, United Kingdom. Since joining the S. C. Johnson Graduate School of Management at Cornell University, United States, he earned a Master of Science in Management (concentrations in Organizational Behavior and Sociology of Organizations) and will graduate with a Doctor of Philosophy degree in Management in May 2018. In July 2018, Bjoern will join the Department of Innovation Management and Strategy at the University of Groningen, Netherlands as an Assistant Professor of Change Management. His research focuses on business-enabled social innovation and novel forms of organizing to address societal problems through business means.

Meiner Familie,
in Dankbarkeit.

To my friends,
Who know,
It's been a journey.
Thank you!

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LIST OF ABBREVIATIONS

BEV: Bioenergy Village (Bioenergiedorf)

EEG: Erneuerbare Energien Gesetz (German Renewable Energy Sources Act)

FNR: Fachagentur für nachwachsende Rohstoffe (Federal Agency for Regrowing Resources)

GeG: Genossenschaftsgesetz (German Cooperative Law)

RE: Renewable Energy

RESCoop: Renewable Energy Source Cooperative

CHAPTER 1

COLLECTIVE ENTREPRENEURSHIP AND ORGANIZING FOR SUSTAINABILITY

Whereas the 20th century witnessed ever increasing concentration in economic organizing, recent trends towards decentralization and localization have emerged in many markets. The expansion of renewable energies promises a democratization of energy supply (Alstone et al. 2015). Locavore movements are altering food supply systems (Elton, 2010). Do-it-yourself trends and 3D printing are poised to change manufacturing patterns (Davis, 2013). Crowd funding offers an alternative to traditional financing (Mollick, 2014). Such developments have led some to forecast the end of the corporation as the primary economic organizing model (Davis, 2013).

While the fate of the multinational corporation in the 21st century remains to be seen, the industrialization and globalization of the past appear to be more often part of the problem rather than the solution in contemporary “Grand Challenges” ranging from anthropogenic climate change and environmental degradation to the perpetuation of social inequality and inequitable trade (George et al. 2016, p. 1880). Alternative organizing models are emerging responding to new technological opportunities, altered political realities, and strengthening societal concerns for environmental and social sustainability. Much of this alternative organizing is driven by collective enterprises, which may be defined as collaborative ventures involving a large number of co-entrepreneurs; often implying entire communities acting entrepreneurially (Peredo and Chrisman, 2006). Collective forms of entrepreneurship are developing innovative ways of regional clean energy supply, growing and distributing organic local food, or operating maker spaces for any person to create custom products on demand rather

than for the shelf. Through their joint economic activity, members participating in such ventures are developing novel organizing approaches and alternative systems to meet our basic needs in a range of markets, promoting decentralization and localization trends, in many ways reversing past corporatization. These efforts create novel additions to society's organizing potential in these markets (Stinchcombe, 1965). Their study promises to advance not only our understanding of these innovative models but also their potential for existing markets to transition toward more sustainability.

While community-based, collective entrepreneurship has been heralded as an important means to bring about sustainable development (Dorado and Ventresca, 2013; Haugh, 2007; Peredo and Chrisman, 2006), the empirical study of such phenomena remains nascent and many theoretical questions are unaddressed (Lyons et al. 2010; Jennings et al. 2013). Prior research has primarily elucidated the sustainable development potential of community-based, collective entrepreneurship in emerging economies, typically lacking market institutions and infrastructure systems common to industrialized nations (e.g., Khavul et al. 2013; Martí et al. 2013; Peredo and Chrisman, 2006). Challenges faced by entrepreneuring communities in established markets are likely to differ considerably from their counterparts in such settings. Facing preexisting institutional systems and taken-for-granted market participant roles, innovative local organizing approaches in industrialized contexts require not just the creation of novel solutions but also the departure from established social arrangements. How community-led, collective enterprises accomplish this feat remains an open question.

In this dissertation, I take a first step towards addressing this broad research question. Studying two examples of community-based, collective entrepreneurship for

a more sustainable, decentralized energy supply in Germany, I inductively develop new theoretical insights into novel organizing models for greater sustainability in established markets. In particular, I investigate Renewable Energy Source Cooperatives (RESCoops) and Bio-Energy Village (BEV) initiatives in the changing German energy market. Both organizing models allow for unprecedented community involvement in renewable energy entrepreneurship and facilitate local changes towards greater social and environmental sustainability. They have emerged as community-based organizational alternatives to traditional energy corporations. They have come to play an important role in increasing public acceptance and engagement with renewables (Wieg, 2013) and have significantly contributed to the rapid expansion of renewables in the German energy mix (AEE, 2013). In doing so, they differ in their relation to the extant system of energy supply. Whereas RESCoops largely work to reform the existing system from within, BEV initiatives seek to replace the existing system locally. They thus represent two complementary empirical settings to study processes of collective entrepreneurship and organizing for sustainability in an established market.

The following two chapters report two empirical studies of these organizations. Chapter 2 on RESCoops advances theory on how vital support for such disruptive collective entrepreneurship can be maintained from heterogeneous participants, despite their divergent expectations. Chapter 3 on BEVs advances theory on the micro-foundations of disruptive institutional work, essential for collective enterprises to be able to advance alternative local systems and successfully operate in the market. Chapter 4 puts these two empirical studies in dialogue, draws some common implications from their findings, and offers directions for future research.

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CHAPTER 2

MANAGING VALUE TENSIONS IN COLLECTIVE SOCIAL ENTREPRENEURSHIP: THE ROLE OF TEMPORAL, STRUCTURAL, AND COLLABORATIVE COMPROMISE

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Introduction

Extant research on social entrepreneurship tends to focus on formal employment organizations that pursue social missions through commercial ventures (Smith et al. 2013; Battilana and Lee, 2014; Battilana et al. 2017). Yet many forms of social entrepreneurship involve collective organizing efforts that depend on voluntary participation rather than formal employment and that pursue a triple rather than double bottom line. Examples include community transformation initiatives in the developing world (Haugh and Talwar, 2016; Pless and Appel, 2012) as well as sustainability alliances (Bowen et al. 2018), cross-sector partnerships (Nicholls and Huybrechts, 2016; Sharma and Bansal, 2017), and other collective organizing efforts (Montgomery et al. 2012). Indeed, some scholars have argued that collaborative partnerships are required to produce effective solutions to large-scale social problems (Sud et al. 2009).

Despite the importance of collective, voluntary forms of social entrepreneurship, extant research offers limited insight into the challenges involved and how to manage them. Studies of social enterprise and hybridity tend to emphasize the twin challenges of preventing internal conflict among employees (e.g., Battilana and Dora-

¹ The research for this chapter was primarily and substantively conducted by the author of this dissertation. In particular, he collected and analyzed all data and independently wrote the first paper draft. Subsequent revision for journal submission was a collaborative process and resultant edits of the paper are reflected in this chapter.

do, 2010; Battilana et al. 2015) and gaining support from diverse external stakeholder groups while avoiding mission drift (e.g., Pache and Santos, 2013a; Ramus and Vaccaro, 2017). Yet collaborative, voluntary organizing initiatives often have few formal employees and must instead work to gain and sustain the participation of members who are not dependent on the organization or one another. Research on worker cooperatives, collectivist organizations, and communities highlights the importance of sustaining member participation for long-term success (e.g., Kanter, 1972; Rothschild-Whitt, 1979; O'Mahony and Lakhani, 2011). However, this work offers little insight into how to do so when a collective pursues multiple, seemingly competing objectives, as in the case of social entrepreneurship initiatives with a double or triple bottom line.

To develop new insight into how collective, participatory social enterprises sustain member participation, we conducted a qualitative, inductive case study of German Renewable Energy Source Cooperatives (RESCoops). RESCoops use a cooperative legal structure to pursue energy projects that meet community, environmental, and commercial objectives, attracting a diverse group of community organizers, environmental activists, local banks and municipalities, as well as private individuals as member-investors. Drawing on interview, archival, and observational data from eight RESCoops, we find that while members agree on RESCoops' pursuit of community, environmental, and commercial objectives, they disagree on the relative importance of these objectives, creating value tensions in the context of specific project decisions. RESCoops manage these value tensions through strategies of temporal, structural, and collaborative compromise that differ in how they enable members to justify project decisions that do not align with their personal value priorities. Joining others in bring-

ing values back into institutional theorizing (Kraatz et al. 2010; Kraatz, 2015; Vaccaro and Palazzo, 2015), our study highlights how an ethics perspective can advance theory on social entrepreneurship and hybrid organizing. In doing so we contribute new insights into the nature of the challenge faced by collective, participatory social enterprises in gaining and sustaining member participation, the capacity of hybrid organizing strategies to mitigate members' dissatisfaction arising from personal value concessions, and the importance of logic combinability as a key dimension of pluralistic compared to dualistic institutional contexts.

Social Entrepreneurship as a Collective, Participatory Organizing Process

Research on social entrepreneurship has tended to focus on formal employment organizations that pursue social missions through commercial ventures (Smith et al. 2013; Battilana and Lee, 2014). Examples include work integration organizations, which hire beneficiaries as employees (Pache and Santos, 2013a; Ramuset al. 2016; Ramus and Vaccaro, 2017), and microfinance organizations that employ loan officers tasked with delivering returns for investors while helping their clients escape poverty (Battilana and Dorado, 2010; Zhao and Wry, 2016). Studies highlight how juxtaposing social and commercial missions within a single organization can foster novel solutions to seemingly intractable societal problems (e.g., Tracey et al. 2011), while also emphasizing the significant challenges social enterprises face in realizing this potential. One line of work emphasizes the potential for internal conflict to emerge between subgroups of employees whose professional values, and identities align with the social and commercial sides of the organization, respectively. As Battilana and Dorado (2010) show in their study of two microfinance organizations, conflict can ultimately

become intractable, leading to declining organizational performance. Studies also explore how organizations can mitigate detrimental conflict, for example through hiring and socialization (Battilana and Dorado, 2010), spaces of negotiation (Battilana et al. 2015), formalization and collaboration practices (Canales, 2014; Ramus et al. 2016), and pluralist managers (Besharov, 2014).

Another line of work emphasizes external challenges of gaining legitimacy and resources from stakeholders who adhere to either a social welfare or commercial logic, creating a risk of “mission drift” over time as organizations conform to the expectations of stakeholders on whom they are more dependent for resources (Ebrahim et al. 2014). Research points to varied strategies and practices for avoiding mission drift and sustaining both social and commercial missions through governance structures (Ebrahim et al. 2014), stakeholder engagement and social accounting (Ramus and Vaccaro, 2017), selective coupling of practices valued by different stakeholder groups (Pache and Santos, 2013a), and managerial sensemaking (Jay, 2013). Recent work examines these challenges and responses over time, showing how dedicated expertise, structures, and relationships associated with social and commercial missions, coupled with leaders’ paradoxical cognitive frames, can enable organizations to dynamically shift between social and commercial missions while sustaining both over time (Smith and Besharov, 2018). Taken as a whole, both streams of research provide important insights into how organizations pursuing dual social and commercial missions can avoid internal conflict and mission drift to sustain their duality over time.

Yet by focusing on formal employment organizations with dual missions, extant research has overlooked critical forms of social entrepreneurship. Santos (2012)

argues that social entrepreneurship is fundamentally about the creation rather than capture of value. As such, it involves the pursuit of sustainable solutions rather than sustainable competitive advantage, enabled by empowering rather than controlling participants and beneficiaries. As Santos notes, formal employment organizations are central for capturing value and achieving sustainable competitive advantage, but they are not the only or even the primary means of creating value and developing sustainable solutions. Moreover, they tend to operate around a logic of control rather than empowerment. In contrast, sustainable solutions occur at the level of an entire social system and often involve organizing processes that transcend the boundaries of traditional organizations. The social enterprise Gram Vikas, for example, seeks to create an “equitable and sustainable society” by working to transform deeply entrenched patterns of social relations in rural Indian villages (Pless and Appel, 2012). In addition, because social entrepreneurship involves creating value for an entire social system, it tends to rely on empowering stakeholders and intended beneficiaries, rather than on formal control mechanisms that would enable value capture. In Gram Vikas’ water and sanitation program, for example, all villagers participate in a set of democratic, self-governing institutions. While Gram Vikas facilitates the process of setting up these institutions, they are governed by and for the villagers (Pless and Appel, 2012).

Although research on social entrepreneurship has not focused extensively on participatory, collective organizing processes, other work in organizational theory offers preliminary insights. Early studies of worker cooperatives and collectivist organizations (Kanter, 1972; Swidler, 1979; Rothschild and Whitt, 1986; Rothschild-Whitt, 1979; Whyte and Whyte, 1988) and more recent work on community forms of organ-

izing (Adler, 2001; O'Mahony and Ferraro, 2007; O'Mahony and Lakhani, 2011; Seidel and Stewart, 2011) point to sustaining members' participation as a key challenge. Members tend to join cooperatives, collectives, and communities in order to realize their personal values, which they perceive as aligned with those of the collective. Yet as collectives grow, they tend to introduce formal organizing practices that risk undermining members' values (Michels, 1966; Piven and Cloward, 1977; Osterman, 2006). Over time, this process can lead to declining participation, threatening community vitality and survival (Oakes et al. 1998; Voss et al. 2000; Weinberg, 2003). A key implication of this research is that in order to survive and thrive, collective organizing efforts must sustain members' participation, and upholding members' values is central to this process.

Unlike the collectives studied in extant research, however, collaborative, participatory social entrepreneurship initiatives often combine social, environmental, and economic objectives within a single initiative in order to address complex social problems whose solutions require collaboration from multiple institutional spheres (George et al. 2016). As Besharov (2014) notes, sustaining member engagement is more complex when the organization in which members participate pursues multiple and seemingly competing goals. Insights from prior research about the specific challenges involved in sustaining member participation, as well as how collectives effectively manage these challenges, may therefore be of only limited relevance for collective social entrepreneurship initiatives. Thus, while prior research on collective organizations suggests sustaining member participation is likely to be critical to the success of collective social entrepreneurship initiatives, neither this stream of work nor extant re-

search on social entrepreneurship shed light on the challenges involved in sustaining member participation in a multi-objective context and the strategies through which initiatives effectively manage these challenges. The purpose of our study is therefore to generate new insight into the critical research question: How do collective social entrepreneurship initiatives generate and sustain member participation?

Method

We adopted a multi-case qualitative, inductive design suitable for advancing theory about issues not well understood in prior research (Edmondson and McManus, 2007). As described below, studying German RESCoops allowed us to investigate processes of collective social entrepreneurship, which have received limited empirical research attention to date. Because it involves a plurality of logics, the setting also offered an opportunity to extend prior scholarship that has focused on two institutional logics. To develop robust and transferable new theoretical insights, we leveraged theoretical sampling and followed a logic of replication in our multi-case study (Yin, 2003). We selected diverse RESCoop cases, using each one to test and refine insights from the others. This approach enabled us to identify common patterns and mitigate over-interpretation of case idiosyncrasies in inductive theory development.

Setting

RESCoops emerged as a new organizational population in Europe's renewable energy (RE) sector in the early 2000s. RESCoops bring heterogeneous investors together to build large photovoltaic installations on roofs, green-field solar parks, wind turbines, biomass energy plants, and occasionally small hydroelectric power stations.

In doing so, they pursue a tripartite mission of 1) profitably producing and selling energy, 2) using renewable sources to support environmental protection, and 3) allowing local community members to participate in and benefit from such RE projects. They quickly developed into a model to organize grassroots involvement of citizens and local community organizations in the complex transition towards RE (Huybrechts and Haugh, 2017). RESCoops consist primarily of private individuals of varied professional and personal backgrounds, while frequently also including institutional members such as municipalities, community banks, and local chapters of civil or environmental organizations. In Germany, the setting for this study, there are over 800 existing RESCoops with more than 167,000 members. They have invested nearly two billion euros in renewable energy projects across the country and produce enough green energy for roughly 350,000 average households annually (DGRV, 2017). Along with other actors in the nation's RE sector, they have taken advantage of entrepreneurial opportunities created by the Renewable Energy Sources Act (Erneuerbare Energien Gesetz, EEG). First passed in 2000, the law established feed-in preference and fixed feed-in tariffs for electricity produced from renewable sources, instigating the nation's ongoing energy transition.

Several features of RESCoops make them particularly well suited to investigating our research question. First, RESCoops are cooperatives that depend on the voluntary participation of members who pool resources and collectively govern the organization. Although members join together to invest in and operate RE projects, dependence on the organization is generally low. Individuals have multiple alternatives for engaging in RE, such as installing solar panels on their own homes and investing in

RE-focused equity funds or company bonds. The design and construction of RESCoops' RE installations are usually outsourced to contractors. In addition, following the German cooperative law (Genossenschaftsgesetz, GeG), members are free to leave at any time and receive their equity share back after a statutory grace period. Members are also not bound to the organization by any employment relationship or subject to a formal, hierarchical authority structure. In fact, the unique cooperative principle of "one person, one vote" (GeG) requires that each member has the same voting right irrespective of equity share, committing each RESCoop to democratic governance structures. Commensurately, the main governing body is the general assembly of all members. To facilitate daily operations, this assembly elects a team of leaders, i.e., directors and supervisory board members, to oversee operations between general assemblies. In most RESCoops, unpaid, committed volunteers who are themselves RESCoop members fill these positions. Given these features, RESCoops offer an excellent context to study participatory, collective organizing approaches for social entrepreneurship.

Second, as "environmental social enterprise hybrids" (Huybrechts and Mertens, 2014; Huybrechts and Haugh, 2017, p. 8), RESCoops espouse three distinct institutional logics – environmental (cf., De Clercq and Voronov, 2011; York et al. 2016), community (cf., Schneiberg et al. 2008; Thornton et al. 2012), and commercial (cf., Pache and Santos, 2013a; Thornton, 2004). They thereby invoke three traditionally separate value systems and "engage in activities typically performed by three distinct organization[s] – community groups, environmental NGOs, and corporations" (Huybrechts and Haugh, 2017, p. 8). As a result, RESCoops offer a rich context for

understanding the challenges of and strategies for sustaining member participation in collectives pursuing more than two distinct institutional logics, thereby providing an opportunity to extend prior research on social entrepreneurship, which has focused on organizing efforts involving just two logics (Battilana et al. 2017).

Data Collection

From 2014-15, the first author collected interview, archival, and observational data on eight RESCoops in Germany, as well as field-level data on the existing population of RESCoops. The eight purposefully sampled cases (Flick, 2006) cover all areas of Germany, were founded at different points in time, and have invested in all the common forms of renewable energies in Germany. In this paper, we draw primarily on 77 semi-structured interviews with RESCoop members², 1,235 pages of case-specific archival materials, and ten hours of observation of RESCoop meetings. We supplement these case data with field-level interviews and archival material, as summarized in Table 2.1 below.

The first author interviewed 7-12 members per RESCoop, including initiative leaders as well as citizen and institutional members. Interviewees were selected in order to capture the full range of perspectives in each RESCoop, asking informants to identify other informants with different opinions and/or positions than their own. Interviews were semi-structured and followed a narrative approach (Weiss, 1994) in which the first author asked informants to report on their experiences in the RESCoop.

² In the findings description, we refer to “Leader members” and “Members” to distinguish between informants elected into leadership positions within their RESCoops and other members.

Table 2.1 Data Collected on RESCoops

Case	Founded	Location	Interviews	Archival Materials	Meeting observation
1	2008	South	12	2 internal reports, bylaws & website, 21 media articles	
2	2013	West	7	bylaws & website, business plan, 4 media articles	07/15/2014
3	2010	Center	8	2 internal reports, 11 project brochures, bylaws & website, 34 media articles	07/03/2014
4	2009	South	10	3 presentations, 3 project brochures, bylaws & website, 26 media articles	06/17/2014
5	2011	East	10	1 internal report, 3 presentations, bylaws & website, 3 media articles	
6	2004	North	11	1 report, 3 presentations, bylaws & website, 124 media articles	06/25/2014
7	2006	North	11	bylaws & website, 47 media articles	
8	2010	Center	8	2 presentations, bylaws & website, 5 media articles	
Field level:			7	11 cooperative association RESCoop brochures, 5 population survey reports, 6 association websites, 20 position papers of field referents, 3,447 media articles	

The interview guide covered topics including personal motivation to join and expectations of the RESCoop, participation in concrete projects and general decision-making processes in the RESCoop, as well as challenges encountered and reactions of RESCoop leaders, with further probing on personal compromises made and contentions perceived. While each conversation was allowed to develop naturally, the same topics were covered with each informant, as relevant to their function within the RESCoop. Interviews with RESCoop leaders tended to be longer than those with citizen and institutional members, as directors and supervisory board members leading the organization naturally had more information to share about all aspects of RESCoop operations (median of about 90 and 45 minutes respectively). Overall, interviews lasted between 30 and 150 minutes, with an average of roughly 50 minutes. Interviews were conducted in German, the informants' native language. All interviews were recorded and transcribed verbatim. To triangulate and complement these interview data, the first author collected extensive archival materials on each RESCoop, including internal documents and publicly available data such as news articles from Factiva documenting each RESCoops' development. In four cases, the first author also observed RESCoop member meetings during which he took extensive field notes.

In addition to collecting these case-specific data, the first author also interviewed seven field-level experts from the five regional and one national German cooperative associations. Association representatives work as founding counselors, advising RESCoop leaders as they establish an organization and often continuing to counsel them as their organizations grow. As a result, they can offer a high-level perspective on the RESCoop population in their respective areas of Germany. The semi-

structured interviews with field-level informants covered topics including the founding process and operation of RESCoops, typical challenges and best practices, legal requirements and cooperative principles upheld by the associations. To further extend our understanding of the RESCoop population as a whole and their institutional environment, we draw on publications and population-level surveys from the various German cooperative associations. In addition, the first author gathered field-level documents such as position papers on RE published by industry associations, environmental NGOs, and the Association of Municipalities.

Data Analysis

Data analysis involved three steps, focused on understanding members' expectations for their participation in RESCoops and the approaches RESCoops adopted to meet these expectations. First, drawing on previous scholarship and our field-level data, analytical ideal types of the three institutional logics relevant to RESCoops were constructed (cf., Almandoz, 2014; Smets et al. 2015) by comparing guidelines for RESCoops expressed in field actors' reports to extant ideal types of institutional logics in the literature (De Clerq and Voronov, 2011; Pache and Santos, 2013a; Schneiberg et al. 2008; Thornton 2004; Thornton et al. 2012; York et al. 2016). These ideal types were further triangulated with interviewees' perceived expectations and actual behavior in the field. It also led to a key insight that guided subsequent analysis – as described in more detail below, we observed that while members agreed all three logics were important, they differed in how they prioritized the values underlying these logics. Table 2.2 summarizes the identified ideal type logics.

Table 2.2 Ideal Types of Institutional Logics Espoused by RESCoops¹

Logic Element	Community Logic	Environmental Logic	Commercial Logic
<i>Organizational mission</i>	Support local welfare	Protect the environment	Generate dividends
<i>Associated organizing model</i>	Charity	Environmental NGO	Business
<i>Associated values embraced by RESCoop members</i>	<ul style="list-style-type: none"> • Solidarity • Mutual support and self-help 	<ul style="list-style-type: none"> • Intrinsic value of nature • Intergenerational justice (in using environmental resources) 	<ul style="list-style-type: none"> • Return maximization • Economy in operations
<i>Prescriptions for RESCoop activities</i>	<ul style="list-style-type: none"> • Creating local jobs • Local sourcing • Community support 	<ul style="list-style-type: none"> • Green-house gas reduction • Educational programs/ residential energy audits • Awareness-raising for environmental issues 	<ul style="list-style-type: none"> • Exploring profitable investment projects • Securing resources • Minimizing costs, maximizing revenues

1) Based on prior literature and analysis of documents by RE field level referents such as environmental organizations, industry associations, the Association of Municipalities, and cooperative associations.

Second, we investigated how these logics, and members' divergent prioritizations of them, were instantiated in RESCoop decision-making. To do so, we developed in-depth case histories for each RESCoop detailing projects undertaken, challenges encountered, and final decisions implemented. We found that RESCoops regularly faced trade-offs between the different prescriptions of these logics as they sought to realize concrete RE projects. If unaddressed, these trade-offs could jeopardize members' satisfaction with the RESCoop, resulting in loss of member support and, in the extreme, threatening the RESCoop's continued growth or even its very existence. While the extent of trade-offs varied across specific projects, they consistently occurred, challenging RESCoops to develop reliable means of handling them.

In the third and final stage of analysis, we sought to understand how RESCoop leaders managed these trade-offs and sustained members' participation and support. As noted above, we looked for replicable patterns across cases to develop transferable theoretical insights (Yin, 2003). To facilitate this cross-case analysis, we developed tables and graphs to identify common patterns in the case histories (Miles and Huberman, 1994). This process surfaced three compromise strategies, each one offering a different approach to justifying project decisions that violated members' personal value priorities and carrying different implications for organizational growth.

Generating and Sustaining Participation in Collective Social Entrepreneurship

Facing Divergent Value Priorities

Agreement on a Triple Bottom Line. Consistent with the RESCoop field as a whole, the eight RESCoops we studied sought to combine community, environmental,

and commercial concerns in a single organization and made an explicit commitment to a tripartite mission. This commitment featured prominently in RESCoops' self-descriptions, as in promotional materials and on their websites, for example illustrated in Case 2:

The [RESCoop] aims to offer citizens of the region an opportunity through the participation in the RESCoop to actively contribute to a sustainable and decentralized energy supply [...] This citizen activism will directly contribute to a climate and energy future that will benefit environmental protection in the interest of future generations, [will benefit] development of the region, and [will benefit] local inhabitants by sharing in value creation. [Website, Case 2]

Private citizens and local organizations who became members and invested in the RESCoops we studied tended to agree on the desirability of this tripartite mission. In fact, this triple bottom line positioning was often what initially attracted members to RESCoops rather than other forms of investment in the RE sector. Members tended to be well-versed in the three logics their organization sought to combine, valued these logics, and believed in their potential compatibility (cf., McPherson and Sauder, 2013). As one member explained when discussing his expectations and reasons for joining:

It is precisely that we want to show that renewable energies are beyond mere eco and idealist projects, that they can also make economic sense. That is the core of the venture – you can make money with such projects *and* protect the environment *and* do something for the community. [Member, Case 3]

General agreement on the importance of a triple bottom line united members, setting RESCoops apart from large utility companies and profit-driven RE project developers. Table 2.3 provides additional illustrative examples of members' commitment to a tripartite mission.

Table 2.3 Illustrative Data for Heterogeneous Value Priorities

Empirical Themes	Data Excerpts
<i>Agreement on a triple bottom line</i>	<p>Ecological thinking is only possible if I put economic thinking with it. I can only be ecological if I think of it also economically. I cannot run a green operation that makes losses. That will fail – so I need to blend both things. I personally am a Green [but] business is business. That also has to work out. [...] You just have to use the things that you have innovatively. That is the interesting point. So the third premise is to be self-sustaining, to support local structures as much as possible. That means to source from local farmers, to create jobs locally. That means developing the region. [...] We always have to think these things together. [Member, Case 7]</p> <p>The aim, that I think all our members support, is that we want to have an energy supply that is economical and environmentally friendly [and] our activity should benefit the region. [...] That means it's about multiple things simultaneously. It is environmental protection. [...] The financial site also has to work. [...] And we of course care about the local community. [Leader member, Case 2]</p>
<i>Individual differences in value priorities</i>	<p>We have roughly three camps in our RESCoop. One is this 'Fukushima-Faction' of people who said after that shock 'I want to realize my personal energy transition with my investment and let my money work for something good, not just have it in the bank. [...] I want to be part of the [green] solution.' That is one group. The second group, that are people, who find the cooperative ideal intriguing, this self-help for [the region]. This community ideal. Doing something constructive together. That is the second camp. And the third, that are people who are really looking for an investment, clean and regional, yes [...] but still very much a financial investment [...]. I wouldn't say we have 640 altruists here who are all directly descending from Mother Theresa. That is definitely not the case. (laughs) [Leader member, Case 3]</p> <p>Members of the cooperative naturally have an expectation of a return on their investments. That should also be the primary aim [of the RESCoop]. [...] But right after that, I think, is this point to replace fossil energies with renewable energy production. And it should be a local project; not 'I am buying eco-power from Norway' or something. The PV-installation is here on a roof and the first 50% or whatever of that electricity are consumed in that building. [...] I'd say that should be the secondary aims. [Member, Case 5]</p>
<i>The emergence of value tensions</i>	<p>Let's say I want to realize a photovoltaic installation on the local kindergarten roof, because I want the kids to see how that works. That they see energy how green energy is created. That will only yield 2% p.a. return, though. At the same time, I could build other installations that would yield 6% p.a. in the same time frame. How do I communicate to people that the 6% will be brought down by the installation on the kindergarten? [Leader member, Case 4]</p> <p>We had also discussed last year at one of the general assemblies if we want to contribute to wind power projects. [...] For me, I would only have seen that realized with a heavy heart [...] With that I would have had an uneasy feeling because it would have been a good wind plot, but I would have thought: It'd be nicer if it would be realized in the region than in the Pregnitz which is a few hundred kilometers off. [Member, Case 5]</p>

Individual Differences in Value Priorities. While RESCoop members agreed on the importance of a triple bottom line in the abstract, they differed in the relative priority they placed on each component of the tripartite mission. For example, one member described community and environmental concerns as paramount, with financial considerations as secondary:

I do want that my investment is not going down in value and I do expect a certain return but in the foreground for me are clearly the other two aspects [...] the ecological ideal; that I want to try to really use the most ecologically friendly energy source [...] and on the other hand also really this ideal of citizens in the region for citizens in the region. [Member, Case 5]

Such equitable attention to two out of the three logics influencing RESCoops was not very common in our data, however. Most members articulated a clear priority for values associated with one logic and described the others as secondary or tertiary to them personally. We illustrate these differences in priority orderings below. Table 2.3 provides additional examples from interviewees in our sample.

For some members, community development through regional investments was paramount. These individual citizen members and municipalities chose to join RESCoops first and foremost to strengthen their home town and region. They expected RESCoops to support community development by sourcing locally, creating local jobs or employing local tradespeople, sharing project benefits with local residents, and increasing the welfare of their community as a whole. They thus placed primary importance on values associated with the community logic: solidarity, mutual support, and self-help. In the words of one citizen member:

Well, and then there is this principle of creating jobs locally and to support the farmers and tradespeople in our village that is this idea of the [RESCoop], that

you support the region, the people who live here, the tradespeople who offer their services here. That is what I like about it. [Member, Case 7]

In the extreme, a few interviewees described financial returns as irrelevant to their participation in the RESCoop and environmental concerns as secondary, while clearly prioritizing community values:

To me it's not about the financial [dividend], I don't say: 'I want to make profit.' It is really just this idealistic idea, supporting this goal... this goal to support regional activities, to strengthen the region [...] because I find this goal of regional energy supply important and forward-looking, ideally of course using renewable energy sources [...] To me, I see this money [I invested] largely as a donation. [Member, Case 5]

Other members prioritized the environmental component of their RESCoop's tripartite mission, seeking to contribute to climate protection, careful use of environmental resources, and a transition to an eco-friendly energy future. Environmental organizations and green individual members were therefore especially interested in green-house-gas reductions and minimal environmental impact. Frequently, this entailed critically evaluating different green energy technologies and their use:

I am really in it for the ecology. Considering biogas plants, I get sick... No - that mono-cropping on the fields... That really has nothing to do with ecology anymore. That has everything to do with making money! [...] I am absolutely against the construction of further biogas plants. [Member, Case 5]

These members prioritized values associated with an institutional logic of environmental protection, such as the intrinsic value of nature and intergenerational justice in the use of environmental resources. Many environmentally-minded members articulated the ethical responsibility they felt towards the environment and future generations.

We have to start. We simply have to start. We must not say: 'This little bit that I emit that doesn't do any damage.' Everything contributes. We have to think about [...] the] following generations, they also want to live in a safe environ-

ment. That certainly is the case. That [climate change] will be a tough problem anyhow, it will! [Member, Case 4]

For these members, climate action and the construction of energy supply infrastructure in the most environmentally friendly way possible were more important than maximizing annual dividends or having the biggest possible impact on regional development.

Still other members were attracted to RESCoops primarily for financial reasons, while appreciating environmental and community concerns. Local banks, for example, saw RESCoop investment as an opportunity to strengthen their local reputation and to develop business clients, as RESCoops frequently worked with these banks to finance their RE projects. For private individuals, renewable energy projects promised higher returns than conventional savings products in times of low interest rates. As one member explained:

First and foremost, it is an acceptable investment option, I have to say. It yields a decent dividend.... With the recent low interest rates on saving accounts, then this is quite an acceptable alternative that you can get here. I think they manage frugally. [Member, Case 5]

These commercially-minded members were most interested in stable returns on their investments, giving primacy to the values of return maximization and economy in operations associated with the commercial logic. Commercially-minded members were thus supporters of the most cost effective and highest yield RE projects. To realize these objectives, they were willing to place relatively less importance on community and environmental concerns.

Data from field-level sources provide further evidence for these differences in individual priority orderings. For example, when describing his daily work advising and supporting RESCoops, a cooperative association counselor explained:

Municipal representatives are always focused on the regional benefit: ‘Everything that is being realized here got to benefit the region.’ For the environmental organizations, the topic of climate change, ecological aspects naturally take center stage. And for those people who have some money, when it comes down to it, those are neither truly interested in regional benefit nor climate change. [...] When the bank for instance, even the local cooperative bank, joins, then they definitely have an economic orientation. Money becomes very important. That is understandable, they work the entire day with nothing else. [Cooperative association counselor]

Similarly, survey research on RESCoops conducted in Belgium noted “significant differences in preferences and interests across categories of members,” with considerable heterogeneity in profit, pro-environmental, and social orientation of members (Bauwens, 2016, p. 287).

The Emergence of Value Tensions. Differences in members’ relative priority orderings between the values associated with community, environmental, and commercial logics became salient when RESCoops embarked on specific projects. Most projects required trade-offs between these values and few could maximize all three dimensions simultaneously. As a result, any particular project undertaken was unlikely to satisfy the priority orderings of all members. For example, planning a biogas plant required making choices between profitability, environmental friendliness, and community benefit. Using local contractors and suppliers would benefit the community and align with values of mutual support and solidarity, but it could hurt profitability, reduce dividends for members, and thus violate values of return maximization and economy in operations. Similarly, intensive, fertilizer-reliant corn cultivation might be the most profitable way to supply a biogas plant, but it would also negatively impact local biodiversity and the plant’s carbon footprint, thereby conflicting with the intrinsic value of nature and climate protection in the interest of intergenerational justice.

Because members differed in their personal value priorities, tensions could emerge when such project decisions had to be made. As one director explained:

We saw tensions arising around the topic of biogas [...] There are many ideological disagreements which bubble up, things like [...] how much monocropping in corn, appropriate fertilizer use. So a lot of issues where some people are saying: That's problematic. [Leader member, Case 3]

In another case, a RESCoop supervisory board member described tensions in project location choices, particularly for green-field solar and wind turbine projects:

Not every site is equally good. Can I do it here or do I have to go outside the region a bit? What about [cost implications of] environmental protection? Because the more I have to invest, the smaller the return. I have to conciliate that somehow. I always have in mind that we have more or less promised our members to not go much below a return of 3% p.a. So we also have to see how big will the return be? And how can we get that for our members so they will stay happy because not all are doing it just for the environment or regional benefit. [Leader member, Case 1]

Table 2.3 includes additional illustrative data on value tensions, and Table 2.4 below offers a summary of trade-offs and associated value tensions by type of RE project.

While value tensions were evident across all types of projects that RESCoops undertook and involved varying combinations of logics, our data indicate two important patterns. First, the potential for value trade-offs increases from solar installations, which are relatively uncontentious projects, to wind turbines and biogas plants, which are more contentious. To capture this pattern, Table 2.4 lists types of RE projects in order of their contentiousness. For example, given that solar installations are not very disruptive to the landscape and produce hardly any noise emissions, especially compared to wind turbines, solar location decisions tend to involve less severe trade-offs between community and commercial values than wind projects do. Also in contrast to wind turbines, solar installations do not pose a lethal threat to migrating

Table 2.4 Types of RE Projects and Associated Value Tensions

Energy	Key Project Characteristics to Be Decided	Value Tension
<i>Solar</i>	<i>roof</i> : community relevance vs. lowest rent, highest sun exposure <i>contractor</i> : local tradesperson vs. cheapest offer <i>supplier</i> : German company vs. cheapest offer	} community and commercial
	<i>location for park</i> : habitat disruption vs. lowest rent, best sun exposure <i>PV panel</i> : lowest toxicity, gray energy vs. cheapest	} environment and commercial
<i>Hydro</i>	<i>contractor</i> : local tradesperson vs. cheapest offer <i>supplier</i> : German company vs. cheapest offer	} community and commercial
	<i>location</i> : habitat disruption vs. lowest rent, best energy yield	} environment and commercial
<i>Wind</i>	<i>location/ height</i> : landscape “damage”, residents’ noise exposure vs. highest wind density <i>service contractor</i> : local company vs. cheapest offer <i>supplier</i> : German company vs. cheapest offer	} community and commercial
	<i>location</i> : habitat disruption, deforestation vs. highest wind density	} environment and commercial
<i>Biomass</i>	<i>contractor</i> : local tradesperson vs. cheapest offer <i>supplier</i> : local farmers vs. cheapest biomass on market <i>land use</i> : food production vs. energy production	} community and commercial
	<i>energy crop</i> : environmental diversity vs. highest biomass yield <i>fertilizer</i> : non-finite resource, gray energy vs. cheapest, highest yield	} environment and commercial

birds and usually do not require forest clearance to be placed in high-yield locations. As a result, they generally imply smaller trade-offs between environmental and commercial values as well. This pattern of solar projects being on the lower end of contentiousness and wind and biomass on the higher maps onto media attention we found on the field level. While press coverage of solar projects is overwhelmingly positive, wind turbines and biogas plants are frequently questioned and attacked.

Second, trade-offs in this setting exist primarily between commercial and environmental or commercial and community values, whereas hardly any tensions emerged between environmental and community values. As Table 2.4 illustrates, 11 of the 18 key project characteristics involve trade-offs between community and commercial values and six involve environmental versus commercial values. We found no instances where community and environmental values were actually perceived to be at odds by RESCoop members. This does not mean, however, that these values were always synergistic. Attending to community concerns did not necessarily also address environmental concerns. For example, Case 1's decision to place less lucrative roof solar installations in each municipality in its region heeded values of solidarity and mutual support while requiring concessions on values of return maximization and economy in operations. Yet this decision did not affect environmental values, as the CO₂ avoided by these installations is the same no matter where they are realized.

Strategies for Managing Members' Divergent Value Priorities

Finding reliable ways of establishing compromises between members' divergent value orderings was of paramount importance for RESCoops, because dissatisfied members could easily withdraw their contributed resources and leave the cooperative.

The RESCoops in our study adopted three different strategies for doing so, which we label temporal, structural, and collaborative compromise. Most RESCoops used one primary strategy, with some also engaging a secondary strategy. We describe these strategies below, using case examples to illustrate our findings. Also below, Table 2.5 offers additional examples for each strategy, and Table 2.6 summarizes our findings across all eight cases.

Temporal Compromise. The first strategy we identified, temporal compromise, involves oscillating in value prioritization over time. When privileging one (set of) value(s) in a concrete project in the present, a RESCoop engaging in temporal compromise simultaneously made credible commitments to privilege other values in the future. In this way, the RESCoop sequentially attended to each of the different value priorities dear to its members.

Temporal compromise was the primary strategy adopted in Cases 1 and 2. The RESCoop in Case 1 was initiated by municipalities interested in developing the local region and contributing to their local climate protection plan. As one of the supervisory board members explained:

We want to generate the energy that we need in our own region. [...] Environmental protection, local patriotism, and of course to have value creation for our region – those three things are extremely important to us! Because we want to keep the money that is in our region in our region. [Leader member, Case 1]

To symbolically emphasize its commitment to community development, the RESCoop even adopted its name acronym from the local license plate. Yet while it emphasized the local community, the RESCoop attracted over 13 million euros of investments from private individuals, many of whom saw it first and foremost as an “acceptable in-

Table 2.5 Illustrative Data for Compromise Strategies

Temporal Compromise Strategy

Case 2 offers another example for temporal compromise. The nascent RESCoop has realized two solar installations on roofs so far. One on a local school and another at a communal waste water treatment plant. While the latter was economically less interesting than the former, possibly reducing the overall portfolio return, it was realized to satisfy the interests of different local communities involved in the regional RESCoop. With another biomass project in planning, the RESCoop's leadership could promise that the "bump" in overall profitability would be compensated in future:

"While the project, because of its size, won't really have much of an impact [financially], that are only 15 kWp which are being installed on that roof [... we are doing this] to show that we are also doing something in [village name]. The relationship between that village and the town isn't always without tension. They always argue that everything is happening here [in the town], so there are certain feelings that are this way. And therefore we now said, ok let us realize this second project in [village name]. [...] Especially now that we are working on the remote heating project in town." [Leader member, Case 2]

Structural Compromise Strategy

Case 4 also draws on structural compromise, as the initiator of the RESCoop explains their financing system:

"Imagine you have a super roof, facing South with an ideal angle, and you can reach six or eight percent annual return on your investment. [...] And then you have a kindergarten, where you would also like to install solar [but] on a West or East facing roof. Projected return: four percent. Then everyone who invested in the eight percent project [...] would say: 'we won't let you ruin our portfolio return. I invested because of the eight percent. [...] We only want to take [economically] better or similar projects.' So, we developed a concept which can separate projects within the same cooperative structure." [Leader member, Case 4]

Using the specialized loan vehicle of "Nachrangdarlehen" the RESCoop has realized projects with a broad range of different priorities. Solar power projects have been used to benefit the local school/kindergarten as well as helping to finance new stands along the local soccer field but also to install a more profitable solar unit. Moreover, the RESCoop has realized a local biomass powered heating grid and associated biogas plant.

Collaborative Compromise Strategy

Case 7 has embraced collaborative compromise as it realized a biomass powered heating grid in its community. Despite the heterogeneous backgrounds and preferences of the RESCoop members and its leadership in particular, a common consensus has emerged that projects will only be realized if they generate benefit on multiple dimensions of the organization's mission, prioritized by different subgroups. As one director explains why they are now considering to work with a local university to research flowers as part of their biomass use:

For example, we are supporting every effort to cultivate plants that optimize our biogas fermenter [...] Plants that take up all the trace elements from the soil that are currently missing in our fermentation biology [...] And they even look great, they flower very nicely, absolutely enriching flora and fauna. [...] That is just one example of our work that we do. With that we are pretty close. And so I repeat: economic profitability is an important goal but at the same time ecologically sensible measures can be very economical, too. That is no contradiction for me. These maxims always stand side by side for us. [Leader member, Case 7]

vestment alternative”. To balance its members’ divergent value priorities, this RESCoop realized a mix of projects over time. Seeking to benefit all municipalities involved, it undertook solar projects on public buildings in every town, but it sequentially interspersed these low-return projects with more profitable green field photovoltaic parks. As another supervisory board member explained:

Smaller solar projects tend not to be quite as profitable, but we have decided that in each municipality we should have at least one solar installation on the roof of a public building. [...] In larger [green field] solar projects we therefore pay more attention to returns. [Leader member, Case 1]

Members who primarily valued the commercial aspect of the RESCoop’s mission have accepted this compromise between different values over time, noting that it addresses their priorities while also meeting those of other members:

We accept [...] that] if the municipality is using it to do something with it that because of that the dividends have to be a bit lower for a while. [...] I have heard that it is a very solid [investment] nonetheless. I have just talked with the – now former – mayor, who we know well, and I trust his word. [Member, Case 1]

To further support overall portfolio returns and make good on the promises to commercially-minded members, the RESCoop began investing far outside the area of its member municipalities, despite its name and local commitment. In particular, it decided to invest in a large solar park that was not only outside its home county but even in a different federal state. While leaders were aware of violating the RESCoop’s values of community benefit and solidarity with residents and local tradespeople, they felt compelled to undertake the project to deliver on the values of return maximization and economy in operations prioritized by those who primarily saw their membership as an investment. In recommending this project to the membership, however, leaders made

sure to credibly signal to community-minded members that they would actively seek to “repatriate” the investment in the future, as soon as they could find an equally profitable project opportunity locally:

Nevertheless, we have bought it, despite it being outside of the region. However, we have realized this thing outside the region in the legal structure of a Limited. [...] The advantage is that as soon as we have a wind power project in the region ready or a solar park in *our* region, we can simply sell [the Limited]. You can sell it more easily than having to sell a part of a cooperative. [...] So this compromise satisfied most sceptics. [Leader member, Case 1]

In summary, the temporal compromise strategy functions by giving serial attention to different values in concrete projects, compromising members’ heterogeneous priority orderings across time. To do so, it relies on members’ trust that the RESCoop will ultimately adhere to all three sets of values, even as specific project decisions may create temporary imbalances.

Structural Compromise. In the second strategy we uncovered, structural compromise, RESCoops offer members a choice of different projects, enabling them to select projects that fit their personal value orderings. Making use of “Nachrangdarlehen,” a specialized loan vehicle under cooperative law (GeG), members primarily invest in specific projects which they can select based on their personal value priorities, rather than placing most of their investment in the cooperative’s general equity and the entire portfolio of projects. Members with different value hierarchies are thus structurally separated and invest in different projects. In contrast to temporal compromise, prioritization therefore differs across projects rather than oscillating over time.

In our sample, Cases 3 and 4 primarily relied on structural compromise. In Case 3, for example, leaders compiled a detailed description for each project which

clearly specified the cost and return structure, environmental impact and predicted emission reductions, as well as benefits to the local community through rents, local sourcing, and investment. Based on this information, members could decide for themselves what they want from a new project and what value trade-offs are acceptable to them, investing accordingly. One member explained:

A specialty of this RESCoop is that you don't have all the projects in one big pot and then in the end there is a dividend that trickles out but you are really invested in one specific project. You can explicitly decide for a project. [...] The capitalist would say: 'I'll participate in the project with the biggest return.' [...] But that is not always the case. One can also participate in the project that is close by and if it does not have quite the best return because it doesn't have quite as much wind or sun it may be much stronger on idealistic criteria. When we put solar panels on a kindergarten then there are of course also idealistic aspects. [...] And so we can also support other goals. Just to stay with the example of the kindergarten, we can support the kindergarten with cheaper electricity. [...] I am really happy that citizens' capital, like mine, can be used to realize such projects. [Member, Case 3]

Self-selection of members into projects reduces the burden on leaders to actively compromise members' heterogeneous value orderings and enables the RESCoop to realize a broad variety of projects. A director in Case 3 explained:

Let's say, usually, we have projects with three percent plus return – or they are idealist projects. For example, for hydropower we would say we'll do it even if it only breaks even if we find the members to invest in the project. That is the benefit of our system, that you can also realize [commercially] weaker projects without dragging the portfolio down. If you don't separate projects out, you would have discussions: 'This really pays and then you did this hydro-project and that barely breaks even.' These kinds of arguments we do not need to have. If we find people for those projects [with greater environmental benefit despite low financial return], we do realize them. That is our principle in that regard. [Leader member, Case 3]

The structural compromise strategy thus functions by separating members' investments, identifying them with concrete projects that deliver on their personal value pri-

orities. Heterogeneous member preferences are thus more or less directly reflected in the project range of the RESCoop at any given point in time.

Collaborative Compromise. The third strategy, collaborative compromise, sharply contrasts with structural compromise in that it entails jointly developing common criteria for upholding community, environmental, and commercial values. Further, unlike temporal compromise, it creates a relatively stable, organization-specific consensus about what thresholds are acceptable for all three sets of values.

Cases 5 through 8 adopted this strategy as their primary means of managing divergent value priorities among members. In Case 5, members included participants in local community clubs, chapters of environmental NGOs, and citizens seeking an acceptable investment, as well as the local municipal government. The RESCoop's leaders, a community banker and a renewable energy engineer, established a culture of dialogue within the organization, routinely discussing with members the guiding principles for their organization. As one supervisory board member explained:

We put this on the meeting agendas, so that everyone knows we are not just reviewing numbers but actually discussing basic principles. [...] And we note all the wishes of the members and then vote on these [criteria], developing a basic shared understanding. [...] Even those who may originally say 'no' to a project, when they learn that all these [criteria] are met, they can live with the new project. [Leader member, Case 5]

Such discussions were facilitated by the democratic structure of the cooperative and the principle of "one person, one vote". This allowed all members to have a voice in the collaborative search for an acceptable value consensus irrespective of their individual equity share and thereby helped resolve controversies and maintain member support. As one director in Case 5 explained:

In our cooperative each member has one vote, no matter whether he has one share or twenty. Each person has *one* vote and can thus influence the direction of activities in our general assembly. Last year for example, we have deliberately discussed wind power and we had a pretty diverse range of opinions. One said: ‘everything [CO₂-neutral] helps that isn’t nuclear power.’ Another: ‘I deliberately invested here because I do not want ugly wind mills here in our region.’ Others had more nuanced opinions, who said: ‘Okay under certain circumstances – not close to residential areas, not in the forest ... And so we decided on certain criteria in the end under which we would consider a project. [Leader member, Case 5]

Having had voice in these collective discussions, RESCoop members were prepared to accept possible concessions to their personal value orderings. Given the democratic principles governing the RESCoop, members were open to deferring to majority decisions. For example, when asked what he would do if the general assembly were to decide on a criterion he did not personally support, a cooperative member responded:

What would happen? Then, I could not oppose it in the cooperative anymore. That is simply a democratic principle, that I don’t petulantly say: ‘Okay, that’s it, I am leaving!’ [...] but I’ll stay in the cooperative. That is just legitimate and I’ll say: ‘I am still opposed, but okay.’ And I will just try to continue to convince others that the criterion is nonsense. [Member, Case 5]

Collaborative compromise thus functions by creating consensus on how to uphold the collectives’ values when trade-offs occur in project decisions. It relies on members’ willingness to participate in discussions and to defer to majority decisions when necessary. It is thus focused on discovering or building value consensus among members, made concrete in explicit minimum criteria for acceptable RE project characteristics.

Table 2.6 Findings Summary by RESCoop Case¹

		Case 1	Case 2	Case 3	Case 4	Case 5	Case 6	Case 7	Case 8
Strategy adopted	<i>Primary</i>	TC	TC	SC	SC	CC	CC	CC	CC
	<i>Secondary</i>		CC		CC		TC		
Number and type of projects realized	<i>Solar on roof</i>	10	3	10	3	3	1		
	<i>Solar green field park</i>	4							
	<i>Hydro</i>			planned					
	<i>Wind</i>	planned		4		missed			
	<i>Biomass</i>		planned	1	1	failed	1	1	1
Size and age	<i>Organization's age [years]</i>	7	1.5	5	6	4	11	9	5.5
	<i>Total equity[million EUR]</i>	13.00	0.07	4.60	0.95	0.20	1.00	1.80	1.10
	<i>Number of members</i>	1300	41	460	165	35	195	215	200

1) as of 2015

TC = temporal compromise
 SC = structural compromise
 CC = collaborative compromise

Towards a Comparative Framework of Compromise Strategies

In terms of their ability to maintain voluntary participation and member support in the face of value tensions, the three compromise strategies of temporal, structural, and collaborative compromise appear to be largely equifinal. Across cases that use different strategies, membership has been growing over time or remained stable, with attrition generally well under 10%. Moreover, when explicitly asked about satisfaction with their RESCoop's activities, 76 of the 77 members we interviewed indicated general approval and no intention to leave their organization. There was also very little open conflict, despite diversity in members' value priorities. As a cooperative association counselor explained:

To date, we have really not had any major conflicts occur, I have to say. [...] There is one RESCoop where there is some friction at the moment. There are disagreements between communal/business and civil members of the cooperative. And this has led to veritable arguments but that is *very* unusual. [Cooperative association counselor]

Yet while all three strategies are associated with sustained member participation, we find differences in organizational growth patterns. As shown in Table 2.6, the cases primarily relying on temporal compromise (1 and 2) have grown the most in size and number of projects relative to their age. Case 1 was one of the largest RESCoops in Germany in terms of assets held as of 2015. While Case 2 is the smallest RESCoop in our sample in terms of equity, it has been the fastest in its founding process. It was also identified as one of the fastest growing start-up RESCoops by a cooperative association counselor, realizing three solar roof installations in quick succession. By comparison, cases that primarily leveraged structural compromise (3 and 4) have realized or are actively pursuing projects using the most diverse set of RE sources. Case 3, for

example, had realized three wind turbines, ten solar installations, and a biogas plant, and was actively investigating a hydro power station. In contrast, cases relying primarily on collaborative compromise (5 through 8) have tended not to expand beyond a single project and have stagnated in size, despite their age. Three of these four cases (6, 7 and 8) realized one comparatively large project primarily involving biogas, and two of these (7 and 8) satisfied with this one project given the difficulties of expanding their portfolio. Case 5 tried to realize more projects but missed an opportunity to participate in the development of a wind park due to time-intensive discussions among members about acceptable criteria for wind power investments. Facing challenges in integrating new members, Case 5 also failed to realize a biomass project.

The mechanisms through which temporal, structural, and collaborative compromise handle value trade-offs help explain how they succeed in retaining members while achieving different growth outcomes. Specifically, the three strategies differ in how they enable members to justify moral concessions – i.e., instances in which collective organizational decisions violate their personal value priorities – and this in turn has implications for whether and how they can grow. We theorize this process below and summarize the key dimensions of difference in Table 2.7.

In temporal compromise, organizational decisions and activities may sometimes depart from members' personal value orderings. Members must be willing to accept the promise of future compensatory action for a violation of their own value hierarchies in the present, justifying an organizational decision they personally would have made differently. This compromise strategy thus requires individual members to license what feels like a moral infringement to them by prospective recompense. For

Table 2.7 Comparison of Compromise Strategies

Strategy Characteristic	Temporal Compromise	Structural Compromise	Collaborative Compromise
<i>Compromise principle</i>	Oscillate between values over time	Self-select into projects with associated value priorities	Build consensus on acceptable value trade-offs
<i>Justification of value concessions</i>	Value concession are only transitory	Not needed, as personal value concession very limited	Shared responsibility for value concessions
<i>Approach to logic incompatibilities</i>	Deferred acknowledgement	Avoided acknowledgement	Explicit acknowledgement
<i>Implications for growth</i>	<ul style="list-style-type: none">• Ease of integrating new members and raising equity• Potential for fast investment expansion	<ul style="list-style-type: none">• Critical mass of members needed for each project independently• Wide variety of projects possible	<ul style="list-style-type: none">• Increasing complexity in adding new members• Time intensive decision making processes

example, a member may accept a lower return on a community roof solar project when anticipating a compensatory higher dividend from a more profitable future green field solar park. The moral challenge of compromising ones' value priorities can be justified by each member as only transitory. This requires, however, that the individual member continues to believe in the overall balanced orientation of the organization and trusts in promised recompense. Temporal compromise thereby defers acknowledgement of potential incompatibilities between the institutional logics espoused by the social enterprise ad infinitum. As long as the RESCoop can credibly assure members of continued oscillation, value tensions never need to be resolved. In consequence, the RESCoop gains much flexibility for organizational growth. Perpetuating the premise of a synergistic triple bottom line, the RESCoop can relatively easily increase its investment capacity by admitting new members or allowing re-investments of extant members at any time. From this pool, leaders can invest in emerging RE project opportunities as long as they credibly signal that future projects will attend to values not prioritized in the present.

Under a structural compromise strategy, in contrast, members encounter very little personal value compromise in the concrete projects in which they are invested. Because they have detailed information on RE project characteristics when making investment decisions, they can select projects that align well with their personal value hierarchies. For example, they can decide what level of deforestation, financial return, and local contractor involvement is acceptable to them personally. This self-selection process spares members from the moral challenge of compromising their value priorities. Structural compromise thus avoids acknowledgement of potential incompatibili-

ties between the institutional logics espoused by the social enterprise on the project level. Members do, however, have to accept that the organization as a whole has a project portfolio that only partly aligns with their personal value orderings. They must be willing to overlook that or justify it as a means of enabling each member to make his or her own moral choices as to what project to support. As long as the RESCoop finds members who subscribe to this premise, it can avoid value tensions in project decisions and gain flexibility in project range, as any project with sufficient investors can be realized. This project-bound investment model can also slow growth, however, because projects must be clearly specified before investments can be solicited, and they can only be realized if a sufficient number of like-minded members come together to fund them.

In collaborative compromise, leaders engage members in a consensus-building or democratic voting process to establish value concessions acceptable to all or at least the majority of members. This approach allows members to learn more about RE projects and reflect on, as well as possibly adapt, their own personal value orderings. In a discussion of biogas, for example, an agreement to limit the use of corn could address the concerns of environmentally-minded members who might otherwise oppose biogas projects due to the negative environmental effect of monocropping. Collaborative compromise thus requires that members are willing to invest time in discussion, and in the end, they may have to accept the outcome of a democratic vote that does not match what they would have personally decided. To justify compromising their personal value priorities, members may diffuse moral responsibility to the group. Collaborative compromise thus entails explicitly acknowledging the potential for incompatibilities

between the logics espoused by the RESCoop and jointly, in dialogue and through democratic decision making, finding acceptable truces. If the RESCoop succeeds in developing a culture of active debate focused on collaborative problem solving, value tensions may thus be satisfactorily resolved for those involved in the process. Yet incorporating new members becomes increasingly difficult, as newcomers must be willing to subscribe to the organization's established value consensus and minimum project criteria. This in turn limits the ability to grow through new investments. The process also entails potentially long discussions and extended decision-making processes, making it more difficult to realize growth.

Discussion and Conclusion

Although social entrepreneurship frequently involves collaborative, participatory initiatives that depend on members' voluntary engagement, little research to date has examined the challenges involved in such collective hybrid organizing or strategies for managing these challenges. Our comparative, qualitative, inductive analysis of eight renewable energy cooperatives in Germany identified maintaining voluntary participation in the face of members' heterogeneous value orderings as a key challenge in these collective social ventures. While members were initially attracted to these initiatives due to their positioning as triple bottom line businesses and agreed on the importance of multiple missions in the abstract, they frequently disagreed on the relative priority that should be given to each mission component in concrete projects. We further uncovered three strategies for managing divergent value priorities and enabling RESCoops to sustain voluntary member participation – temporal, structural, and col-

laborative compromise – and highlighted the implications of these strategies for justifying individual-level moral concessions and realizing organizational growth. These findings highlight the importance of values for institutional theorizing (cf., Kraatz et al. 2010; Kraatz, 2015; Vaccaro and Palazzo, 2015) and the generative potential of an ethics perspective. In doing so, they make several contributions to our understanding of social entrepreneurship and hybrid organizing.

Implications for Theory

First, we offer new insight into the nature of the challenge involved in gaining and maintaining participation in collective social entrepreneurship by calling attention to the role of individuals' heterogeneous value orderings. Previous research on employment-based social enterprises has emphasized challenges arising from internal factions and subgroups of members disagreeing on the appropriate mission of their organization (Battilana and Lee, 2014; Ashforth and Reingen, 2014). In these accounts, controversies and conflict arise as a single organization seeks to bring together employees from different professions who carry their respective value systems into the organization (Almandoz, 2014; Glynn, 2000; Pache and Santos, 2010, 2013b). In daily interaction, fault-lines emerge as employees' values clash (Battilana et al. 2015; Reay and Hinings, 2009; Battilana and Dorado, 2010). Although a few studies describe organizational members who serve as carriers of multiple logics simultaneously, this work assumes members agree on the relative priority of logics, often implying they prioritize two logics equally (e.g., Smets et al. 2015).

In contrast, in the collective, participatory social entrepreneurship initiatives we studied, individuals agree on the desirability of combining multiple institutional

logics, yet they disagree on the relative prioritization of logics and their associated values. Differences in priority orderings are consequential, because organizational decisions frequently require trade-offs between different values. Developing strategies for managing value tensions is critical, as doing so enables collective social entrepreneurship initiatives to sustain member support and engagement. In highlighting this issue, our study broadens existing understandings of the challenges involved in social entrepreneurship and calls for scholars to consider not just tensions between carriers of different logics, but also tensions that emerge when members accept multiple logics yet disagree on their relative importance. This issue may be particularly important when initiatives combine three or more logics, as the possibility for differences in priority orderings is greater than in dualistic contexts.

Second, we offer new insight into the management of hybridity and multiple logics by showing how strategies uncovered in past research address a broader set of challenges than previously recognized and by unpacking the mechanisms through which they do so. Our findings and theorizing about how temporal, structural, and collaborative compromise enable alternative moral justification processes suggest hybrid organizing strategies not only sustain divergent organization-level priorities (Battilana and Dorado, 2010; Smith and Besharov, 2018) and appease competing institutional demands (Pache and Santos, 2010, 2013), but can also ensure the ongoing participation and retention of members without recourse to employment-based managerial practices and authority structures. Whereas much prior research has focused on why particular institutional demands are given priority, we unpack how the “losing” demands in organizational logic prioritization can be satisfactorily managed (Greenwood

et al. 2011, p. 351), thereby extending our understanding of the scope of hybrid organizing strategies.

In particular, past research has found that strategies of oscillating between competing demands or logics in a manner similar to the temporal compromise strategy we uncovered can enable formal employment organizations to uphold dual logics or competing demands over time (e.g., Smith and Besharov, 2018; Andriopoulos and Lewis, 2009). Our study expands this research by showing how a strategy of shifting priorities over time serves to accommodate members' individual value priorities and sustain their participation, as it enables members to rationalize value transgressions as only transitory. By deferring the recognition of the potential incompatibility of different values that the collective social enterprise embraces, not only does temporal compromise sustain multiple missions over time at the organizational level (the focus of prior work), but it also mitigates moral dilemmas at the individual level and maintains satisfaction of those having to accept (transient) violations of their personal values.

Similarly, prior research has described structural separation of multiple logics, for example relegating them to separate organizational sub-units through compartmentalization (Binder, 2007), as a strategy for mitigating conflict between groups of employees (Greenwood et al. 2011; Pratt and Foreman, 2000) and as a means of ensuring both logics receive dedicated attention and focus on an organizational level (Ebrahim et al. 2014; Tushman and O'Reilly, 1996). Our findings add to this work by showing how strategies that structurally separate organizational components prioritizing different logics also support member satisfaction and participation. By enabling individuals to affiliate with the organizational component (in our case, an RE project) that best

meets their personal value priorities, structural compromise preempts moral dilemmas at the individual level and thereby helps sustain members' engagement. Notably, we find that this does not necessarily require the focus on a single logic in a given organizational subunit as in compartmentalization (e.g., Binder, 2007). Instead, in the context of members' general agreement on a multiplex mission, practices that structurally separate different logic hierarchies from one another are sufficient.

Past studies have also shown that opportunities for collaboration and negotiation facilitate the emergence of compromise and prevent conflict between employees aligned with competing logics (Battilana et al. 2015; Ramus et al. 2016). Our findings on the collaborative compromise strategy used by RESCoops extend this work by highlighting the value to individual members of making collaborative decisions. That is, we show that collaborative compromise can not only prevent interpersonal conflict or mission drift on an organizational level but can also enable individual members to justify violations to their personal value priorities. As decisions are taken jointly, individual members can diffuse responsibility for accepting value concessions to the collective. Furthermore, as collaborative compromise involves considerable discussion, individual members have an opportunity to learn about others' value priorities and to revisit their own positions. Moral dilemmas are thus effectively mitigated for individual members, and even members whose personal priorities may differ from the collective's decision remain engaged.

Third, whereas prior research on social entrepreneurship and hybrid organizing has tended to focus on settings involving just two logics and to treat them as contradictory (Battilana et al. 2017; Greenwood et al. 2011), by studying initiatives involving

more than two logics we reveal an important characteristic of higher order pluralistic institutional contexts: logic combinability. Even when logics and their associated values are not at odds with one another in a concrete setting, they are not necessarily synergistic in that their demands may not be easily combined. While proponents of each logic may be unlikely to quarrel with one another, they also lack reason to collaborate. Because their demands do not overlap, they may not join forces in opposing a third incompatible logic, instead taking issue with distinct features of the third logic.

In our study, for example, only two of the three binary relationships between logics were contentious. Environmental and commercial as well as community and commercial were often at odds in concrete project decisions, whereas environmental and community values rarely conflicted. This situation enabled RESCoops as collective, participatory social enterprises to bring together a wide range of individual members without multiplying the potential for tensions. At the same time, the values underlying the environmental and community logic did not map onto one another. As a result, although the presence of environmentally-minded and community-focused members did not create challenges per se, it also did not reduce the range of issues to be considered, as each logic conflicted with the third commercial logic on different issues. Tensions between environmental and commercial values were therefore added to the tensions between community and commercial values. Moreover, while environmentally-minded and community-focused members in our setting did not quarrel with one another, they also did not work together to collectively face the demands made by members prioritizing the commercial logic. Logic compatibility without logic combinability did not lead to the emergence of a combined community-environmental faction.

These insights contribute to ongoing research on the opportunities and challenges of institutional pluralism (Battilana et al. 2017; Kraatz and Block, 2008; Ocasio and Radoynovska, 2016; Seo and Creed, 2002) by suggesting that while logic compatibility may be valuable for realizing opportunities amidst institutional plurality, logic combinability may be required to mitigate many of the accompanying challenges. They also have implications for research on conflict in hybrids (Ashforth and Reingen, 2014; Battilana and Dorado, 2010; Besharov and Smith, 2014; Glynn, 2000), highlighting the analytical leverage of logic combinability, not just compatibility and centrality (Besharov and Smith, 2014), in settings involving more than two logics. Logic combinability influences the incentives for distinct factions to work with one another, and it may thereby help explain differential tendencies for collusion among some groups versus others in hybrid organizational contexts.

Implications for Practice

Our research cautions social entrepreneurs not to confuse a general agreement of their supporters on a multi-part mission with the substantive alignment of their interests. As we have shown, the devil may be in the detail and tensions can erupt in concrete decision situations when trade-offs between mission components reveal divergent priorities amongst their supporters. Our study offers three concrete strategies for how such conflicts may be mitigated and highlights important implications for organizational growth associated with each of them. Social entrepreneurs, particularly when engaging in community-based endeavors need to understand the potential unintended consequences a decision for a temporal compromise strategy versus a structural or collaborative compromise strategy is likely to yield. If quick growth is of im-

portance and they can draw on an established trust relationship to their supporters, temporal compromise is likely most appropriate. If a range of different activities and a heterogeneous pool of supporters is desired, structural compromise likely is the way to go. Collaborative compromise appears most apposite for smaller and fairly cohesive groups backing a social enterprise. It is most likely to foster the deepest connection of supporters to the venture but also requires the most time in managing supporter relationships.

Limitations and Future Research

Our focus in this study was on understanding the challenges facing voluntary, collective social entrepreneurship initiatives and strategies through which organizations manage these challenges to sustain member participation. To do so, we studied eight cases that differed in age, size, location, and energy sources used. This approach enabled us to compare different strategies and their implications for abating moral trade-offs and associated likely consequences for organizational growth. Naturally, since the theoretical insights developed through this research derive from an inductive study of a concrete context, their transferability and potential boundary conditions need to be considered. Given that our research investigated RESCoops in Germany, the concrete form of temporal, structural, and collaborative compromise was influenced by the German cooperative law and RE industry context. As the foregoing discussion has illustrated, however, these compromise strategies in their gestalt resemble more general hybrid organizing strategies. As a result, our insights into the potential of such strategies to mitigate individuals' moral dilemmas may be transferable to other empirical settings and national contexts. In addition, while the collective, voluntary

nature of the social enterprise initiatives we studied made members' value tensions and organizational participation especially salient, other hybrid contexts are likely to face similar challenges. We expect our insights to be of particular relevance to other forms of collective hybrid organizing such as participatory membership organizations, as well as cross-sector alliances and public-private partnerships. Yet even within employment organizations, managing institutional demands that are not prioritized may be necessary. We encourage future research that explores how our insights might transfer to such settings.

In addition, because the organizations we studied differed along multiple dimensions and we did not follow their development in real time, future research is needed to address the antecedents of the strategies we uncovered and their development over time. Our data offer suggestive evidence for factors at multiple levels of analysis. At the organizational level, initiative leaders and their approach to the cooperative legal form may be particularly important. The founders of Case 5, for example, were drawn to the cooperative form because of its democratic principles. Commensurately, they developed a culture of joint discussion and leveraged collaborative compromise when value tensions started to surface amongst their organization's members. In contrast, the leaders of Case 4 were drawn to the cooperative legal form because the specialized loan vehicle of a "Nachrangdarlehen" allowed for some separation of project ownership within a single organization. Consistent with this orientation, their RESCoop relied on structural compromise from the start. At the field level, cooperative association counselors may play an important role, as their central position in the network of existing and nascent RESCoops allows them to contribute to cross-

organizational learning and the diffusion of best practices. For example, counselors' recommendations to involve mayors and other trusted local authority figures may support the emergence of a temporal compromise strategy, because members may be more likely to accept promises for future compensatory action while asking for present value concessions from these authority figures. Longitudinal and large N studies can further explore how these and other factors may jointly influence strategy choices.

Another area for future research concerns dynamics over time. In particular, future work can build on our findings about the implications of different strategies by exploring how organizations evolve in their use of strategies as they grow and develop over time. For example, how can organizations adopting a collaborative compromise approach expand in scale? Does doing so require switching to a different strategy? How do collective social enterprises move from one compromise strategy to another? There was suggestive evidence in our data that as RESCoops move to new types of energy sources, particularly sources that are more contentious, their legacy compromise strategy may not be sufficient. In these situations, leaders may experiment with other strategies or reach out to cooperative association counselors for best practice advice, ultimately adopting a secondary compromise strategy. For example, when Case 3 began exploring an opportunity to realize a biogas project, members voiced concerns even though they had previously accepted that the RESCoop would undertake solar and wind projects side by side through a structural compromise strategy. Members demanded a broader discussion of this new energy source, and to appease them, leaders adopted collaborative compromise as a secondary strategy. Single case studies

drawing on observational data and following collective social entrepreneurship initiatives in real-time can further unpack the dynamics of compromise strategies over time.

Notwithstanding these limitations, our study makes multiple contributions to research on collective, participatory forms of social entrepreneurship in pluralistic institutional environments. It reveals novel challenges faced by these voluntary collectives and unpacks the mechanisms through which hybrid organizing strategies can be used to manage them. We hope our work will inspire future studies to attend to this increasingly common and important form of hybrid organizing, helping collective social enterprises live up to their full potential in addressing important societal problems.

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CHAPTER 3
DISRUPTING INSTITUTIONS:
HOW COMMUNITY-BASED ENTERPRISES BREAK FOSSIL DOMINANCE
IN RURAL GERMANY

Introduction

“That is certainly also an emotionally charged process [...] In my experience, the rational arguments – I don’t want to say take the backstage – but they are at least not in the foreground.”

– a Bioenergy Village initiator

Most grand challenges, such as clean energy or sustainable communities, are systemic in nature (George et al. 2016; Howard-Grenville et al. 2014). Addressing them requires us to break with taken-for-granted roles and habitualized practices. Parting with institutionalized systems that are unsustainable opens avenues for social innovation and the prospect for change.

Convincing individuals to break with familiar institutions is not easy, however (Tracey, 2016). Institutional theorists have long argued that such taken-for-granted social arrangements are constantly reproduced and thus fairly resistant to change (Barley and Tolbert, 1997; Douglas, 1986; Jepperson, 1991; Zucker, 1977). A recent stream of research has revealed the many ways in which individuals maintain institutionalized structures and practices (e.g., Dacin et al. 2010; Heaphy, 2013; Lok and DeRond, 2013; Martí and Fernández, 2013; Riaz et al. 2016; Wright et al. 2017). Even those clearly disadvantaged by an institutional system that they take for granted are often (unwittingly) complicit in its perpetuation (Voronov and Vince, 2012). This raises a central puzzle: How can individuals be moved to disrupt institutional arrangements they take for granted?

Despite early conceptual work calling attention to processes of deinstitutionalization (DiMaggio, 1988; Oliver, 1992; Zucker, 1988), empirical research on the work done to break with institutions has remained limited. Most of what we do know comes from studies focused on the creation of novel institutions, only “incidentally discuss[ing] disruptive institutional work” (Lawrence and Suddaby, 2006, p. 238; Lawrence et al. 2009). The few studies that focus on institutional disruption have contributed important insights into how field-level conditions for institutional reproduction are undermined, particularly through discursive processes (Ahmadjian and Robinson, 2001; Dacin and Dacin, 2008; Davis et al. 1994; Maguire and Hardy, 2009; Røvik, 1996; Symon et al. 2008), yet have largely overlooked the important micro-processes implicated in compelling individuals to disrupt institutions. As a consequence, our understanding of how individuals are moved to discontinue their use of institutionalized arrangements is underdeveloped.

To address this research need, I utilize a qualitative, inductive approach (Eisenhardt and Graebner, 2007), investigating Bio-Energy Village (BEV) initiatives in the German energy sector. BEV projects ask village residents to abandon taken-for-granted independent household heating systems operating on fossil fuels. Instead, they seek to develop centrally-operated and communally-owned biomass based local alternatives. In doing so, BEVs challenge existing assumptions about the role of individual homeowners and the habitualized practices used to heat and power their homes. While BEV initiatives cannot hope to displace the fossil energy system nation-wide, they seek to disrupt its taken-for-grantedness in their own villages. Parting with the familiar does not come easily to village residents, however, and initiative leaders often face

anxieties and initial resistance. Indeed, exploratory interviews conducted for this study highlighted the role of emotions in such institutional disruption efforts, which has been conspicuously absent in the bird's eye-view adopted in field-level studies of deinstitutionalization. Recent findings on micro-level institutional processes also suggest that bringing individuals to reconsider long held beliefs and familiar institutional arrangements may not just be a cognitive but also fundamentally emotional process (Fan and Zietsma, forthcoming; Ruebottom and Auster, forthcoming; Tracey, 2016), further highlighting this gap in previous studies of institutional disruption. I thus focus on elaborating our understanding of the micro-foundations of institutional disruption with particular attention to the role of emotions.

My study offers three main implications for extant theory. First, and somewhat paradoxically, I find that despite the availability of prior success examples, disruptive BEV initiatives couch their efforts as pioneering. This is contrary to what prior research focused exclusively on cognitive processes of disruption would suggest. Justifying local disruption by reference to successful prior examples elsewhere should bestow cognitive legitimacy (Hannan and Carroll, 1992; Greve, 1995) and disperse skepticism (Ahmadjian and Robinson, 2001; Strang and Meyer, 1993). My data suggest, however, that by allowing individuals to feel as pioneers for a socially desired cause, BEV initiatives can inspire pride in the local community leading to greater mobilization for disruption. Second, prior research leads us to expect that most effort will go into severing the attachments of individuals to the extant institutional system (Oliver, 1992; Maguire and Hardy, 2009). Yet, I find that disruptive BEV initiatives invest considerable effort in creating new emotional attachments to local alternatives. This

prevents extant arrangements being reasserted and stabilizes the localized disruption achieved. Third, I find that to successfully move individuals to depart from the taken-for-granted, disruptive initiatives leverage juxtaposed negative and positive moral emotions conjointly. This contrasts with the prior focus in the literature on negative emotions such as shame (Creed et al. 2014) or guilt (Tracey, 2016) to explain why individuals may seek different institutional arrangements, adding new insights to the emerging realization that combinations of emotions may often be necessary in institutional processes (Fan and Zietsma, forthcoming). Overall, this study thus extends prior research by unpacking important emotional dynamics implicated in institutional disruption, contributing to a better understanding of the micro-processes underlying such institutional work and advancing the emerging literature on emotions and institutions.

Institutional Persistence and Disruption

Institutionalized patterns of social life are continuously perpetuated and are thus relatively persistent (Barley and Tolbert, 1997; Jepperson, 1991). Having assumed a quality of taken-for-grantedness, they are “maintained over long periods of time without further justification or elaboration” (Zucker, 1987, p. 446) because institutional agents have come to see them “as the only natural or ‘obvious’ way to conduct an activity” (Oliver, 1992, p. 565). Consequently, disrupting institutionalized arrangements requires targeted efforts (Battilana et al. 2009; DiMaggio, 1988; Mutch, 2007; Reay et al. 2013), often referred to as “disruptive institutional work,” defined as the set of practices by which social agents “attempt to undermine institutional arrangements” (Lawrence et al. 2009, p. 9).

Research suggests that social agents perpetuate institutions for two primary reasons. First, isomorphic social forces in an organizational field compel their reproduction (DiMaggio and Powell, 1983; Meyer and Rowan, 1977; Scott, 2013). Second, institutional agents' personal cognitive-emotional attachments compel them to continue their taken-for-granted roles and habitualized practices (Douglas, 1986; Voronov and Vince, 2012; Voronov and Weber, 2016). Prior research on institutional disruption has primarily attended to the former, alerting us to conditions and practices that erode field-level forces reproducing extant institutional systems. Oliver (1992) conceptualized a typology of antecedents to deinstitutionalization, highlighting functional, political, and social pressures countervailing perpetuating forces. She contended that particularly changing government regulations as well as performance problems and crises pave the way for institutional disruption as they challenge the legitimacy of extant institutional arrangements. Subsequent studies extended her initial insights by revealing to us how rhetoric and shifts in field-level discourse can undermine beliefs and assumptions that hold extant institutions in place (Davis et al. 1994; Seymon et al. 2008). For example, Maguire and Hardy (2009) showed how new subject positions on the taken-for-granted use of DDT problematized this institutionalized practice in public discourse. Eventually, the growing substantiation of this critique based on environmental and public health concerns led to its ban. Social movement activity may support such erosion or shifts in field consensus on appropriate institutionalized practices and structures (Hiatt et al. 2009; Hoffmann, 1999; Rao et al. 2003).

Similarly, research on institutional creation suggests that as alternatives to the status quo become normalized, extant institutional arrangements lose their grip

(Greenwood et al. 2002; Greenwood and Suddaby, 2005; Thornton, 2002). With increasing numbers of defectors, safety-in-numbers is created and institutional agents are less compelled to adhere to the previously taken-for-granted (Ahmadjian and Robinson, 2001). With growing availability of success examples, justifying the displacement of previously institutionalized structures and practices becomes easier (Strang and Meyer, 1993; Tolbert and Zucker, 1996). Density based legitimation of novel arrangements (Hannan and Carroll, 1992; Hannan and Freeman, 1988) and the ability to cite successful models (Strang and Soul, 1998; Greve, 1995) calls into questions the status quo. Prior literature thus offers persuasive explanations for how social forces perpetuating institutional practices in an organizational field may erode over time.

Yet, this field level research is less well positioned to explain how individuals' institutional attachments compelling them to maintain habitualized roles and practices can be severed. Increased attention to the micro-foundations of institutional theory has expanded our understanding of institutional agents as fully-sentient persons (Voronov and Weber, 2016), who form cognitive-emotional attachments to the institutional arrangements they inhabit (Creed et al. 2014; Hallett and Ventresca, 2006). Voronov and Vince (2012, p. 69) argue that human beings are attached to the institutional order they take for granted because it "reduces anxieties and fears". Individuals know and are used to performing the roles afforded to them under the institutionalized systems they inhabit (Voronov and Weber, 2016). Institutions thereby serve the fundamental human desire for predictability in social life (Douglas, 1986; Proudfoot and Kay, 2014; Tushman and Romanelli, 1985) and individuals' cognitive-emotional attachments compel them to maintain the institutional arrangements they are familiar with.

Indeed, recent research has documented the many ways in which individuals become embedded in institutionalized systems and by which they maintain institutions on the ground (e.g., Dacin et al. 2010; Gill and Burrow, forthcoming). They patch up slippages in the face of imperfect enactment of institutionalized roles and associated practices (Heaphy, 2013; Lok and DeRond, 2013; Wright et al. 2017) or reassert institutional arrangements under threat (Kellogg, 2012; Micelotta and Washington, 2013; Toubiana and Zietsma, 2017; Riaz et al. 2016), assuming the role of “institutional custodians” for arrangements they have a vested interest in (Dacin and Dacin, 2008). This suggests that undermining institution-perpetuating social forces in a field may be insufficient to create institutional disruption on the ground. We need to better understand how individuals’ institutional attachments can be overcome.

Recent studies suggest that emotions may be implicated in individual institutional detachment. Creed and co-authors (2014) conceptually argue that individuals wanting to rid themselves of shame may reject institutions that discriminate against them. Studying religious conversion, Tracey (2016) shows that eliciting empathy and promoting guilt facilitated individuals considering a new Christian belief system. Ruebottom and Auster (forthcoming) illustrate how emotional energy created in interstitial events supports critical reflexivity in youths about the institutional order they take for granted. Emotions may thus prepare individuals to reconsider extant institutions. Still, we need to better understand how such institutional detachment may be strategically created in individuals, especially if current institutions do not discriminate against them or fail to meet their (spiritual) needs, and even more importantly how such detachment may be turned into actual disruptive action. We need to better understand the

tactics that can be used to compel individuals to discontinue institutionalized practices and structures they have thus far unquestioningly accepted. Consequently, I seek to elaborate our understanding of the micro-foundations of institutional disruption with particular attention to potential emotional processes involved. My aim is not to dismiss cognitive processes, particularly in field discourse, highlighted by previous work but to reveal important emotional dynamics implicated in disruptive institutional work on the ground (Jasper, 2011; Voronov, 2014); acknowledging that thinking and feeling are often inextricably interlinked (Elfenbein, 2007; Ellsworth and Scherer, 2003; Forgas, 2003). I thus seek to extend and complement prior work on institutional disruption.

Method

Because my aim is theory elaboration, a qualitative approach is particularly apposite with its strengths in building rather than testing theory (Pratt, 2009). I leverage a multi-case research design (Eisenhardt, 1989), allowing for a replication logic in which cases can serve to confirm or disconfirm inferences drawn from the others (Yin, 2003). By identifying patterns that hold across cases, one can gain greater confidence in the reliability of emerging findings (Eisenhardt and Graebner, 2007). I focus on a recent and ongoing instance of institutional disruption efforts which enables the use of a breadth of qualitative data sources. These include both interviews with the social agents involved and archival materials produced by them and others in the field. This approach allows me to combine information on the emotional experiences and reasoning of participants with contextual data on developments and discourse in the broader field.

Setting

This study focuses on efforts to break with the institutionalized energy system in rural Germany by BEV initiatives. The history of these community-based, entrepreneurial initiatives begins with legal changes introduced in early 2000 when the national parliament passed the Renewable Energies Act. It offered fixed feed-in tariffs for new renewable energy installations, creating considerable entrepreneurial opportunities. It enabled forecasting of revenues for such projects, leaving only the cost side to be controlled. It ushered in the national “Energiewende” (energy transition) which, despite variable political support, has since become a matter of national pride in public discourse, with a relatively stable share of around 95% of the population considering growth in renewable energies “important or very important” (AEE, 2017a).

With these legislative changes and the pursuant societal discourse on the energy transition, political and social pressures arose creating the opportunity for institutional disruption (Oliver, 1992). Taking advantage of these developments, an action research project sought to demonstrate that breaking with institutionalized fossil fuel based energy supply had become feasible in rural areas of Germany using community entrepreneurship. Village residents were to collectively invest in and operate a local biomass power plant, producing and selling green electricity to the national grid to offset the power needs of the village and use process heat from the plant to heat homes via a local hot water grid. The project team chose to refer to their concept as a “Bioenergiedorf” (Bio-Energy Village, BEV) [Case A in my data]. Sponsored by the Federal Agency for Regrowing Resources (“Fachagentur für Nachwachsende Rohstoffe”, hereafter FNR), a multidisciplinary team of university researchers set out to develop a

model BEV in collaboration with local village residents starting in early 2001 [Case A]. Over five years, they developed and implemented a concept for supplying the village with energy from local renewable resources, such as wood, corn, manure, and various other energy crops. Initiative leaders succeeded in convincing roughly two-thirds of the local population to discontinue their use of the previously taken-for-granted fossil fuel based system and to let go of familiar roles and habitualized practices in heating and powering their homes.

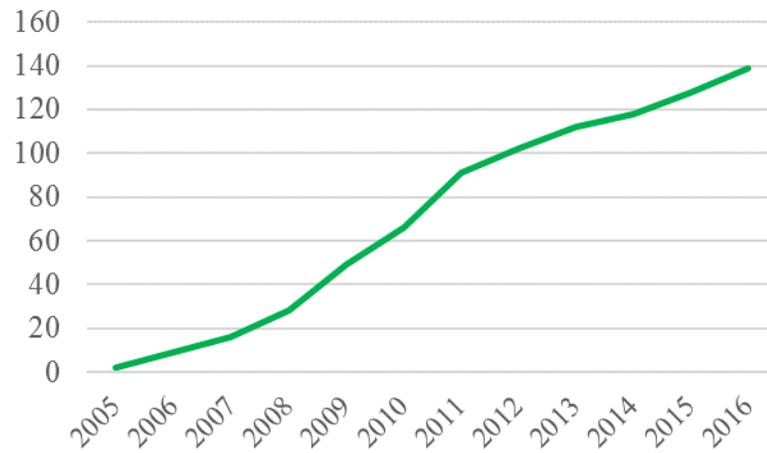
Over the last decade, BEV initiatives have been started in all regions of Germany and the number of realized BEV projects has considerably grown (see Figures 3.1 and 3.2 below). By the end of 2016, 139 BEVs meeting at least 50% of their energy needs based on local renewable resources, have been recognized by the FNR. The agency estimates that some 250 to 300 other initiatives are on their way nation-wide. Given the unique social structure, resource base, and topography of each village, each local BEV initiative has to develop its own viable technical and organizational concept. As one BEV-mayor quipped: “What unites BEVs is their individuality” [BEV Congress Report, 2014, p. 40]. Naturally, with increasing prevalence of existing BEVs, accumulating knowledge and experience facilitates the development process for later projects. Field-level information exchange has considerably increased, with the FNR and other promoters publishing a series of “How to become a BEV”-guides, organizing conventions, and maintaining a web-portal to serve as a “central information hub” (BMLEV, 2009, p. 18).

BEV initiatives provide a highly relevant setting to study the micro-processes of institutional disruption. Despite their considerable heterogeneity, BEV initiatives

share a common ambition to convince as many of their local residents as possible to break with the taken-for-granted, yet unsustainable energy system that has dominated rural Germany over the last seventy odd years. Fossil fuel-based heating has been the unquestioned status quo for decades, with more than 76.6% of German home owners relying on individual gas and – particularly in rural Germany – oil furnaces (BDEW, 2015). A well-developed industry and infrastructure supplies these fuels to residential customers and the professions of “Heizungsbauer” (heating technicians) and “Schornsteinfeger” (chimney sweeps) sell and service individual home furnaces. Homeowners purchase electricity from highly regulated utility companies, with the national electricity mix still remaining dominated by fossil fuels (AEE, 2017b). For village residents, the institutionalized energy system simply is the “natural or ‘obvious’ way” to meet their energy needs (Oliver, 1992, p. 565) and the act of purchasing energy through the established channels a largely “unreflective habit” (Dacin and Dacin, 2008, p. 331). Asking them to discontinue their use of fossil fuels not only implies substituting technologies and having to build alternative local energy infrastructure but also embracing unsettling changes to familiar roles and habitualized practices for home owners (cf. Barley, 1986; Hargadon and Douglas, 2001; Munir and Phillips, 2005). Village residents take for granted their role as customers of heating oil distributors and utility companies. They make independent decisions about when and where to purchase their oil or how to maintain their own furnace. Asking individuals to break with these familiar structures and habitualized practices, and to instead engage in collective entrepreneurship and joint decision making, thus constitutes a considerable institutional disruption in their lived experience.

Figure 3.1:

Number of Bioenergy Villages in Germany



Sources: FNR (2017).

Figure 3.2:

Geographic Distribution of Bioenergy Villages in Germany



Sources: adapted from FNR (2017).

Moreover, the setting is particularly relevant for organizational researchers interested in grand challenges, such as climate change (Howard-Grenville et al. 2014). Somewhat ironically, rural lifestyles in industrialized nations tend to be more energy intensive and reliant on more CO₂-emitting technologies than urban, controlling for family size and household income (Glaeser, 2012). Disrupting extant patterns of rural energy supply is thus particularly promising to allow more sustainable alternatives to be developed. Understanding enablers of social innovation in rural contexts is therefore not only of theoretical but also immanent practical relevance.

Data Collection

From 2014-17, I visited six established or aspiring BEVs to collect data on their development (see Table 3.1 for an overview). The six cases were purposefully sampled to offer variance in factors that likely impact the ease of local disruption. This offers an opportunity to replicate findings across cases to gain greater confidence in their transferability (Eisenhardt, 1989; Yin, 2003). Cases differ in size of the community, initiation year (and thus fossil fuel market conditions), and location. Cases also vary in the degree of disruption they achieved. This variance enables inferences about practices contributing to cases' success not only based on replication across successful cases but also based on absence or reduced prevalence in less successful cases.

The success of local disruption efforts can be gauged by a number of indicators. Both the amount of heat and electricity energy no longer sourced through the extant system offer a measure of local disruption achieved. However, replaced fossil heat energy is arguably the more meaningful indicator than green electricity for a number of reasons. First, it most directly measures the major aim of BEV initiatives, which

focus the bulk of their efforts on an alternative heating concept for their village. This is primarily due to the fact that most BEVs automatically produce more green electricity than they need locally due to the biomass technologies used for energy generation. Second, from a conceptual standpoint, the extent of fossil heat energy replaced best captures the extent of local institutional disruption, as switching to green power is considerably less disruptive to habitualized practices and lived experiences of residents. Generally, the existing institutions of the national grid are used to supply green energy to BEV residents while communal local heating means a dramatic departure from what individual homeowners are familiar with. The most important indicator of the effectiveness of local disruptive institutional work is thus how much fossil heat energy is being replaced by a local biomass alternative in a village. The start-up time until the project's local alternative is accepted and constructed by local residents offers a complementary indication of an initiative's success as less time required to enlist local residents arguably indicates greater efficiency. Using these criteria (see Table 3.1), one can classify Cases A, C, D, and E as most successful in bringing about local disruption, followed by Case B, being intermediately successful. Case F failed because, while managing to sign-up 16% of the local households, this was not enough to construct requisite infrastructure for clean local energy supply.

This pattern of disruption success is not easily explained by differences in observable case features that may most readily come to mind. The pattern of costs of participation differs from the pattern of disruption success observed (Table 3.1). Furthermore, savings promised by the respective BEV initiatives were paradoxically often less pronounced in the more successful cases, as I elaborate below. Similarly, village

Table 3.1: Overview of BEV Cases and Data Materials

Characteristics	Case A	Case B	Case C	Case D	Case E	Case F
Extant recognized BEVs	0	4	9	17	64	110
Project initiation	early 2001	mid 2006	early 2007	early 2007	early 2011	early 2013
Operational	late 2005	mid 2010	late 2009	late 2011	mid 2014	failed 2015
Location	North	North	East	South	Center-West	East
Main resources used	biogas, wood	biogas	biogas, wind	biogas, wood, solar	biogas, wood	wood
Organizational structures	cooperative	cooperative	limited, farmers' cooperative	cooperative, farmers' limited	cooperative	cooperative planned
Population	780	1329	128	912	1055	168
Civic organizations per 100 inhabitants	1.3	1.6	3.1	2.2	1.3	1.2
Green vote share [%]	6.9	4.6	4.3	9.5	6.4	5.4
Min. individual invest [EUR]	5,000	5,000	3,000	3,000 – 7,000	4,000 – 7,000	3,000 – 5,000
Power supplied via	national grid	national grid	local grid	national grid	national grid	-
Start-up time [years]	5	4	3	5	3	-
Approx. fossil heat energy replaced	75% ¹	50%	95%	90% ¹	70% ¹	0%
Data Type						
Interviews	<i>11:</i> - 3 project leaders, action researcher - 7 residents - 1 mayor	<i>11:</i> - 4 project leaders - 6 residents - 1 mayor	<i>8:</i> - 2 project leaders - 4 residents - 1 mayor - 1 municipal rep.	<i>10:</i> - 2 project leaders - 7 residents - 1 mayor	<i>9:</i> - 3 project leaders - 6 residents - 1 mayor	<i>8:</i> - 3 project leaders - 4 residents - 1 mayor
Archival materials	<i>325 pages:</i> - 3 presentations - project chronical - project reports - info leaflets - 124 articles - website	<i>137 pages:</i> - project brochure - info leaflets - 47 articles - website	<i>127 pages:</i> - project exhibition - 1 presentation - 31 articles - website	<i>277 pages:</i> - 3 presentations - project chronical - village chronical - 26 articles - website	<i>79 pages:</i> - 2 presentations - 5 articles - website	<i>167 pages:</i> - 3 presentations - 3 articles - website
Observation	meeting on restructuring initiative			meeting on increase in heat price		

1) private households, local businesses, plus communal buildings (e.g. local kindergarten, primary school, town hall, community center)

size, location, as well as indicators of social cohesion (number of civic organizations relative to village size) or local ideological support for the green agenda (average share of green vote) do not suggest an easy explanation for the pattern of success either (see Table 3.1). Moreover, cases are similar in demographic composition. Many of the most straightforward explanations for the differences in success thus do not map onto the actual patterns observed. I therefore systematically investigated what initiative leaders did in the most successful cases to bring about local disruption and contrast these insights with the less successful and failed case to corroborate these findings. To study each case thoroughly, I use two primary (interview and archival) and, if available, one supplementary data type (observational).

Interviews. I conducted 57 in-depth interviews with individuals on their local BEV initiatives. Interviews lasted between one-half and two-and-a-half hours, with a median of about 75 minutes. Informants were purposefully sampled (Flick, 2009), as I sought individuals who experienced the local BEV initiative from a variety of perspectives and could jointly offer a comprehensive representation of the reactions to the local initiative. For each case, informants include initiative leaders who headed the BEV project, village mayors, as well as “regular” residents. In all cases, I made sure to interview nearly all initiative leaders as they had the most intimate knowledge of efforts to convince others to break with the extant system and reactions thereto by the village community. Residents offered a personal perspective on how these efforts were received, allowing for triangulation. Adopting a variant of snowball sampling, I sought a cross section of local residents. I asked initiative leaders, mayors, and other residents to suggest further interview partners with different perspectives than their own. In

each case, I thus interviewed residents representing the spectrum of different reactions that developed vis-à-vis the initiative in their village. Mayors provided a village community oriented perspective. Through their special position, village mayors have their ears on the local population's concerns and were thus able to offer additional information on overall reactions.

Interviews were semi-structured (Patton, 2002), audio-recorded, and transcribed verbatim. I conducted interviews in the informants' native language of German. For the analysis, I used the original German interview transcripts to avoid information loss. I later translated quotes into English for inclusion in this paper. In interviewing, I followed a narrative approach (Weiss, 1994; Creed, DeJordy, and Lok, 2010), prompting informants to tell me their personal story with the BEV initiative in their village. Interview guides were tailored to each informant group and included topics such as personal relationship to the BEV initiative, what convinced individuals to participate, the development stages of the project, difficulties and problems of the project, and the role of the initiative in village life. I avoided prompting interviewees to talk about specific emotions to mitigate contrived data (Potter, 2002; Silverman, 2007). If they mentioned their feelings in a certain situation, I would further probe to understand their sentiments.

Archival data. I collected a total of 1,112 pages of archival materials, including a variety of data on each case to supplement interviews and add detail to case histories. The data include publicly accessible materials such as news articles from regional and national print media retrieved from Factiva as well as news articles from the local press collected on site. I also examined published reports, village chronicles

or information leaflets, and the comprehensive websites documenting the developments of the projects. In addition, I received some annual reports, presentations, and other initiative documents (see Table 3.1 for further details).

Furthermore, I collected extensive data on the field-level discourse and information exchange that emerged following the action research project on Germany's first BEV. These documents include 1,053 pages of informational and educational materials produced by the action researchers, the FNR, and regional organizations that have emerged to promote BEVs. I also gathered 3,447 media articles published on BEVs in Germany between 2000 and 2016 from Factiva. Together these archival data allowed me to gain an understanding for the materials and arguments circulating in the field, which BEV initiative leaders could draw on over time.

Observation. In the summer of 2014, I had the chance to observe meetings in two of the cases studied. In Case A, I observed a discussion of plans to reinvest in seven-digit euro figures to modernize the existing biogas plant. The meeting included presentations and discussions, lasting about 3.5 hours. In Case D, I observed a discussion of the first heating price increase, including a formal vote on the issue. The meeting took about 3 hours. On these occasions, I saw how local initiative leaders tried to stabilize commitment to their BEV initiatives and break with the nationally dominant fossil fuel-based energy system. I took extensive notes during both events. These observations allowed me to further triangulate insights derived from interview and archival data. They further allowed me to observe in real time some of the practices used by initiative leaders.

Data Analysis

To systematically analyze these data, I engaged in three primary steps, working towards theoretical insights into how initiative leaders enlisted residents in institutional disruption locally.

Step 1: Developing case histories. To integrate the breadth of different data collected, I began by compiling case histories for each BEV initiative (cf. Santos and Eisenhardt, 2009). I triangulated (Denzin, 2009) between interview and archival data to construct a coherent description, summarizing important phases in a BEV initiative's evolution and key milestones. Archival materials such as info leaflets, presentations, and media articles served as important sources for factual information and for capturing the thinking of those involved in the BEV initiatives at the time, as in quotes or declarative statements. Interviews supplemented these with the memories of informants about their experiences and sentiments in the given situations. Based on my triangulation efforts, I found interviewees' recollections of the chronology of events to be remarkably reliable, which may be explained by the comparable recency of and interviewees' significant personal involvement in the BEV initiatives studied. Reading through these case histories side by side, emotions surfaced as an important element of the phenomenon and appeared to significantly differ across cases, further substantiating initial insights from my exploratory interviews.

Step 2: Coding for emotions. Having identified emotions as potentially important, I coded the transcripts of my semi-structured interviews more systematically for them. Following established practice, I initially engaged in open coding for emotions and subsequently systematized my coding using an inductively developed coding

manual (cf., Fan and Zietsma, forthcoming; Massa et al. 2017). Often informants would label their emotions themselves, as in "...we are *proud* that we accomplished this together" [Resident, Case A]. Other times, I inferred emotions from informants' statements, as in "... and so it is sort of, well, maybe also a way to sooth your conscience – your environmental conscience – that you have finally done something for that" [Resident, Case E], which I coded as *sense of collective guilt*. I iteratively aggregated initial in-vivo codes and identified three recurrent emotional categories which I summarized in a coding manual (Appendix I). Using this manual, I reviewed all passages coded for emotions and checked, if necessary adapted, my initial coding. Across cases, I found emotions of anxiety, ranging from mild worries to in some instances more pronounced fears. I also found different types of moral emotions that initiative leaders evoked in local residents. Moral emotions are "feelings of approval or disapproval (including of our own selves and actions) based on moral intuitions or principles, such as shame, guilt, pride, indignation, outrage, and compassion" (Jasper, 2011, p. 287). I found negative moral emotions of dissatisfaction with the situation or in some instances one's own involvement therein, ranging from indignation to a sense of collective guilt. I also found positive moral emotions, especially in the most disruptive cases, varying from satisfaction in doing good to expressions of pride.

Step 3: Coding for initiative leaders' practices and their effects. Based on an initial set of in-vivo descriptions of initiative leaders' activities emerging from the case histories assembled in step 1, I began identifying common practices across the particularly disruptive cases (A, C, D, and E). Revisiting the primary data from which I had constructed the case histories, I interrelated activities with the emotion coding of step 2.

I moved from descriptive first-order codes, resulting from initial open coding, to more abstract higher-order codes that aggregated similar activities. Throughout this process, I used ATLAS.ti to structure and document my analysis and wrote memos to describe the dimensions of the emergent codes (Huberman and Miles, 2002).

I looked for patterns replicating across cases (Yin, 2003). I used tables and graphs to facilitate this cross-case analysis (Miles and Huberman, 1994). As a set of recurrent practices emerged in the successful cases, I queried the less successful cases (B and F) for the same practices (Eisenhardt, 1989). Noting the reduced prevalence, absence, or failed attempts of using these practices in the less successful and the failed cases, offered some additional evidence for the role of the practices in explaining the success of Cases A, C, D, and E. While the infeasibility of a perfect matched case design due to the complexity of each case setting precludes the development of strong causal propositions, I take the presence of such patterns as further corroborative evidence for their relevance (Eisenhardt and Graebner, 2007). Together with the replication across successful cases, this lends greater confidence in the transferability of the emerging theoretical insights (Yin, 2003; Eisenhardt, 1989). To further increase “trustworthiness” (Lincoln and Guba, 1985), I also made use of peer debriefs during the research (cf. Fan and Zietsma, forthcoming) and checked findings for resonance with field participants’ experience (cf., Nag et al. 2007).

Findings

So the greatest challenge was to motivate the people to participate. The project that can only live if we all participate, collectively. And to get that across to the people that wasn’t so easy. We had ups and downs. [...] But until you get there, that was my biggest challenge actually. [Initiative leader, Case D]

Across cases, initiative leaders expressed how difficult it was to compel local residents to participate in their disruptive initiatives. The task was perceived to trump all technical and logistic issues. A first challenge initiative leaders faced was raising awareness for the availability of possible alternatives to the taken-for-granted energy system amongst local homeowners. Due to their personal backgrounds and interests – usually involved in either environmental organizations, agriculture, or municipal government – initiative leaders were more likely to have heard and were receptive to developments in the bioenergy sector. This was not the case for “regular” village residents who continued to see the extant system as the obvious and normal way of meeting their energy needs. My data suggest that continued to be true long after numerous BEV projects had already been established across Germany. A resident from Case E, for example, summarizes his initial ignorance to bioenergy alternatives as follows:

That was really new to me. I had never heard of it before. And I would have never ever gotten the idea to even inquire about something different. My home heating worked. [...] I have only been confronted with this idea as it was being presented to us here [in a village meeting]. [...] Only after, in conversations at social events or at work, ... then you would find out about other examples. And only then, I started realizing where everywhere something like this is. But before, I never knew that there is such a thing. [Resident, Case E]

Exposing residents to the possibility of alternatives was not enough, however. Initiative leaders set out to convince residents to jointly explore and invest in an alternative for their village. Across cases, I find that initiative leaders used economic arguments as the baseline to do so. All initiatives argued that due to finite fossil resources, energy prices would continue to rise and biomass alternatives would become an attractive alternative.

Yet, not all cases were equally successful in compelling local residents to switch to an allegedly cheaper bioenergy alternative. While Case F, for example, made a clear argument for cost savings, it did not manage to convince enough local homeowners to realize its concept.

Per household [we estimated] that would be probably 100, 200, 300 Euros per year that our new concept would save them. With that, a number of people are saying ‘Well, that is too little for me’ or ‘No, for that the hassle [of switching] is too much’. [Initiative leader, Case F]

At the same time, other initiatives were very successful in convincing their populations to participate, although they could not show clear savings straight away but only promised more stable prices over the long term.

“From the beginning I knew, well, that profit I won’t really make with this. [...] Well, if it was now, let me say, I would need to see but probably I would again say: I do participate in this cooperative.” [Resident, Case D]

“So back then, we said: Will you support our concept if it is for the same price as the fossil fuels? And that was the case [residents participated]. We did our full cost calculations, including oil price and service costs, so that [the BEV alternative] would be about the same for households.” [Initiative leader, Case A]

Even with a less definite promise of economic gains, some initiatives managed to compel many residents to break with the extant system. I found this contrast puzzling and sought to understand what successful initiatives did to enlist local residents in institutional disruption beyond the common economic arguments.

My analysis revealed that, to disrupt the institutionalized energy system in their village, initiative leaders engaged in three interrelated and mutually-reinforcing practices: distancing residents from the institutionalized system, mitigating the impetus for institutional maintenance, and attaching residents to a local alternative. Effectively enacted, these practices collectively positioned institutional disruption as a justi-

fiably daring initiative to take pride in. While in practice these activities often occurred iteratively or concurrently, I present them sequentially for ease of comprehension, following the most typical order they take in BEV initiatives.

Distancing Residents from Institutionalized System

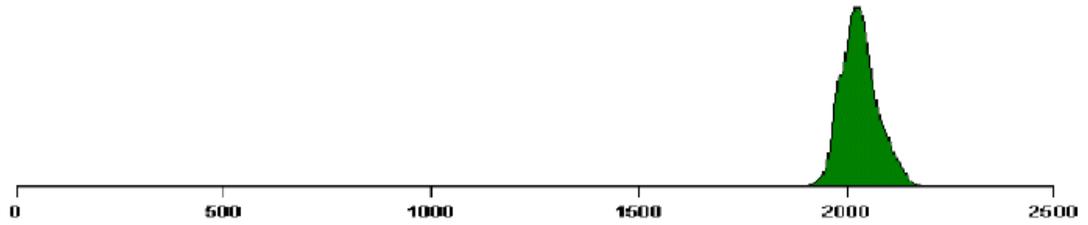
To compel residents to break with the dominant institutional arrangements, initiative leaders sought to distance residents from the extant system they had thus far just accept as a given. Initiative leaders engaged in two types of activities to facilitate such distancing. First, they *revealed perceived problems institutionalized in the extant system* and thus portrayed breaking away from it as desirable. Second, they engaged in activities rendering the *extant systems' disadvantages more salient* to individuals. Together these activities evoked and buttressed negative moral emotions vis-à-vis the institutional arrangements surrounding fossil energy supply.

To reveal inherent problems in the extant system, initiative leaders tied into the emerging public discourse on climate change and the necessity of an energy transition in Germany. Figure 3.3 below shows typical examples of information materials used to illustrate the institutionalized negative environmental externalities. The primary arguments included the overexploitation of finite environmental resources by present generations and its contribution to anthropogenic global warming. Revealing to village residents how their reliance on fossil fuels compounded environmental problems and placed undue burdens on future generations seemed to resonate with many individuals, making them reflect about the extant system. In the words of village residents:

We had many, many village meetings in which specialist would tell us that there will not be any oil left in seventy years. And that, if we continue this way with our release of CO₂ that Hamburg will be under water then. And that coal

Figure 3.3:

Representative Data Excerpts: BEV Initiative Early Information Materials



Der Ölverbrauch in einem Zeitfenster von 2.500 Jahren; Quelle: Rempel (2000)

Translation: Oil Consumption in the time window of 2.500 years;

Source: Rempel (2000)



Problem



Sources: Case A info leaflet, Case D presentation slide

is still going to be there but that uranium will also stop being available in 60 years and such things. That was really impressive for us back then, these information, especially as real experts were here, who told us how deep you have to drill to get to oil and such things. Today, every child knows that there are environmental problems – but in 2000. That was not that well-known – amongst the researchers, yes of course, amongst the specialists – sure otherwise they wouldn't have come here from the university but amongst us, here in the village... I also think in cities back then, this wasn't something you really realized. But once you know, it's hard to ignore your role in that. [Resident, Case A]

Knowing all this, the idea was really to do away with fossil fuels because I believe it is an obsolete technology. Because I really think that probably, that my daughter (pause) that my daughter hopefully won't have to ask me in 25 years why on earth we simply burned all these precious resources – although we had totally different options!! I simply could not stand seeing this [opportunity to find an alternative] pass us by. [Resident, Case E]

I find that the efforts of initiative leaders illustrating these problems led village residents to question the taken-for-granted status quo and evoked negative moral emotions in them. Many villagers articulated a sense of collective guilt and/or indignation that propelled their reconsideration of the dominant institutional arrangements. Table 3.2 below offers additional representative data excerpts. These emotions were not only evoked by tapping into environmental arguments, however. Across cases, initiative leaders also sought to illustrate institutionalized dependencies in the extant system. In particular, they highlighted the import dependence of Germany in fossil energy resources, the oligopolistic market structure, and the associated outflow of money from their village to pay for the imported energy resources.

Only a small portion of the needed fossil and nuclear energy carriers can be supplied within Germany. Especially, for oil, gas, and uranium large import reliance exists. [...] Because the demand for oil is increasing and surpasses production capacities and therefore exceeds supply, [consumers] are subject to the price dictates of large anonymous energy suppliers. [Info leaflet, Case A]

Through the use of the current oil furnaces and electricity providers, ca. 2,000 MWh = 150,000 Euro fossil fuel costs and ca. 275 MWh = 70,000 Euro power costs are drained from the region annually.” [Presentation, Case F]

Table 3.2: Representative Data Excerpts of Evoked Negative Moral Emotions

<i>Sense of collective guilt</i>	<p>The [fossil] resources will get depleted. And at some point it's over. So, when I (pause). One may consider this exaggeration but when I think of our children and our children's children, we should do something to leave the world somewhat intact. We already overly exploit nature anyhow. And if this [BEV initiative] is an alternative - I am all for it. [Resident, Case A]</p> <p>And we have to start. We simply have to start. We must not say: This little bit that I emit that doesn't do any damage. Everything contributes. We have to think about - well, I have six grandchildren, four children and six grandchildren. The following generations, they also want to live in a safe environment. That certainly is the case. That [climate change] will be a tough problem anyhow, it will! [Resident, Case D]</p> <p>Well, you just say: I do this now [participate in the BEV initiative]. And I just do that now also for the cooperative, for the environmental idea. And so it is sort of, well, maybe also a way to sooth your conscience – your environmental conscience – that you have also done something for that, with all that we know about climate change and CO₂ and all. [Resident, Case E]</p>
<i>Indignation</i>	<p>In contrast to other types of energy that one has just accepted, oil or gas, where you just have to accept the prices – you know those dictates from those greedy oil companies – here the energy was supposed to be produced locally and the residents in the village were to have a high degree of control. [Resident, Case A]</p> <p>At the moment the situation is a bit unusual, that the heating oil price has dropped so much. But that is a transient political thing. That will not last very long from my point of view. Fracking in the US is quite interesting at the time. From my vantage point, that is supposed to be stopped. That is why the OPEC-countries flood the market with their overproduction. [...] But that is the typical politics, global politics that we cannot essentially influence. It is really quite upsetting. We are totally at the mercy of their whims. [...] And so what we have to do is to innovatively integrate the things that are [locally] present. That is the point of the matter. [Resident, Case B]</p> <p>We will still in a hundred years not be able to do without oil. Maybe we have to produce it synthetically then, who knows, but we do not need to waste it for unnecessary things. I always hate to see things squandered. [Resident, Case E]</p>

Many residents responded with indignation towards the extant system. Alternatives that promised autarchy and an end of perceived unfair exploitation of this dependence became desirable.

It was crystal clear to us [...] if we take our energy supply into our own hands, then we have much more [price] security than if we have to place our hopes in the Arabs or Russians. Currently, only *they* really benefit. But then we'd say: *We* can influence that ourselves. [Resident, Case C]

Doing something else also has the cost [control] argument going for it, I'd say. With the current oil price – when I fueled my tank, then there always was some kind of crisis, then in Afghanistan. Each time the oil price exploded but you have to fuel at some point. You simply have to. That cost a pretty penny. Can make you quite mad really, when you think about it. [Resident, Case D]

Supporting the development of such discontent with the status-quo, initiative leaders used different means to make the perceived disadvantages of the institutionalized system even more apparent and concrete for their residents. They conducted surveys asking each household to list past expenses for heating and electricity. While this was an essential step in helping design an alternative local, biomass based energy supply concept, it also reemphasized for each homeowner his or her reliance on the extant system and the associated “price dictates”. Furthermore, information events with perceived authority figures or experts, such as university researchers or professionals in the energy sector or of environmental organizations, helped to substantiate the claims made by initiative leaders. Additionally, initiative leaders used connections to local media to place supportive articles in the local newspapers, with titles such as “So that the Money stays in the Village” (Media article, Case D).

The most successful cases made extensive use of these distancing activities and effectively evoked negative moral emotions concerning the extant institutional arrangements which residents thereto had, largely unquestioningly, taken-for-granted. Table 3.3 summarizes the pattern I found across cases. I interpret the absence of these practices in the less successful cases as additional evidence for their role in initiatives’ success. Moreover, my data also suggest that the less successful cases were less convincing in making alternatives more desirable than the extant system, impeding the distancing of residents from the dominant institutional arrangements. Given that BEV projects usually require a collective heating system instead of independent home furnaces in order to profitably use bioenergy technologies, revealing dependencies institutionalized in the extant system does not necessarily evoke indignation. Residents

could perceive the new collective village heating also as a form of dependence. Instead of being dependent on oil producers and the institutionalized market infrastructure, residents would become dependent on local farmers as biomass suppliers and their neighbors as co-owners of the energy supplying organization. Initiative leaders thus had to assess whether and how dependence arguments may indeed produce desired dissatisfaction with the old system. The particularly successful cases managed to do so despite initial challenges, for example:

There were certainly people who initially said: Don't bother me with that. I want to do my own thing. I don't want to get out of the frying pan right into the fire. With this [BEV project] I may end up being dependent on the farmers or the cooperative. There were certainly people who articulated that openly but we managed to convince them that this is different, they have a say. [Initiative leader, Case A]

Less successful Case B and particularly the failed Case F did not manage to overcome such reactions and thus were less effective in distancing residents from the institutionalized system, as the following data excerpts illustrate:

[The BEV initiative] was something new in [this village]. Naturally not everyone says right from the beginning: I take a different heating system although mine is perfectly functional [...] or, I join such a community at all, making myself dependent on this community. I am now dependent, you see. [Resident, Case B]

There are those concerns to become dependent on such a community [...] For instance, we have a person, who decided deliberately against it, saying: No, I want to remain my own master. And I rather pay triple or quadruple the amount but want to decide for myself. [Initiative leader, Case F]

In these cases, initiative leaders failed to effectively connect indignation to the extant system by revealing institutionalized dependencies without spurring concerns about other dependencies arising from proposed local alternatives.

Table 3.3: Overview of Distancing Activities across BEV Cases

	Case A	Case B	Case C	Case D	Case E	Case F
<i>Revealing institutionalized problems.</i>						
• illustrating environmental harm	+	○	+	+	+	○
• illustrating dependencies	+	○	+	+	+	-
<i>Demonstrating disadvantages:</i>						
• cost assessment survey	+	+	+	+	+	+
• info events with experts	+	○		+	+	○
• eliciting local media articles	+		+	+	○	
<i>Start-up time [years]</i>	5	4	3	5	3	failed
<i>Approx. fossil heat energy replaced</i>	75%	50%	95%	90%	70%	0%

+ used extensively
 blank/no symbol means no attempts were undertaken
 ○ limited attempts
 - failed attempt and push-back

Mitigating Impetus for Institutional Maintenance

Even if residents became cognizant of flaws in the existing institutionalized system, they would often still hesitate to disrupt it. While most residents were not bound to the institutionalized energy system due to vested interests, it did provide them with predictability and reliability, making it very tempting to dismiss alternatives and thus maintain the reassuring status-quo. It offered familiar roles and worked for certain after all. In contrast, entertaining the idea of breaking with the familiar evoked concerns and anxieties in village residents.

Sure, with heating oil that was clear, you have a tank in your basement and that is then pumped into your own furnace and then the whole thing works. You know how to keep it running. And with this [BEV initiative] here you couldn't really imagine how this would look like on this large scale. So naturally I was worried. [Resident, Case D]

Embracing a bioenergy alternative would not simply mean a technological exchange in their own homes that could easily be integrated with the extant system. It would re-

quire completely new localized structures and practices supporting it. Its reliability was uncertain and many felt uncomfortable taking such a risk.

My concern was: Does it actually function? Will I really get hot water up here [hilly topography]? What happens when the heating plant isn't working? How will I heat then? I found that quite disconcerting. At least with oil I knew that it works and there is always going to be a technician I can call in if I have a problem. [Resident, Case E]

We thought: We probably won't be sitting in the dark. We probably won't be freezing. But a great many [other] village residents were worried and also approached us and were wondering: How can you really risk that, disconnecting from a large energy company? [Resident, Case C]

Moreover, bioenergy carriers would be sourced from local farmers rather than individually purchased by homeowners on the market. Infrastructure would be centrally operated and owned through some form of communal bioenergy organization. Residents would thus turn from individual customers to collective entrepreneurs, also having to worry about their venture's viability.

There were many reservations at first. [...] 'We are now paying a lot of money, participate in this communal system and suddenly next year you are broke and the heat isn't coming anymore'. [...] And so yes that was the first point, trying to convince the people that [the BEV initiative] is a viable thing. [Initiative leader, Case B]

These concerns and anxieties were often further aggravated by the nature of the alternative energy technology proposed. Having a biogas fermenter close to one's home, producing potentially explosive methane and using resources such as manure, was in itself troubling residents.

In the beginning there were certainly fears that the [biogas] plant might stink. And that in case of a damage - if the plant should burst - that the village would be affected. There were certainly fears or worries in the beginning that were discussed intensely." [Resident, Case A]

For most residents, letting go of the taken-for-granted was anxiety-inducing indeed (see Table 3.4 for further representative quotes). In fact, the anxiety induced by breaking with the institutionalized system was enough that, across cases, many residents told me they had originally kept their old oil furnace in their homes even after the new heating grid was installed. This was despite the oil furnace having been disconnected from their homes' central heating and long-term contractual commitments to the local bioenergy organization that they would have to honor irrespective of what they used to heat their homes. It thus appears a rather illogical choice. Yet, the fear of not having functioning heating and the assurance the institutionalized system offered in residents' minds, seems to have compelled them to maintain a back-up plan, at least for a while.

Table 3.4: Representative Data Excerpts of Perpetuation-Inducing Anxieties

<i>Worries</i>	<p>It took quite a bit of convincing of the one or the other person, for them to say: 'I give up my own heating furnace and get linked to the communal grid.' [...] Having only had to mind that they purchase enough heating oil and now suddenly being asked to be involved in such a venture, was definitely troubling some. [Initiative leader, Case D]</p> <p>We were a bit worried in the beginning. Will it really get warm? Does that really work? If it gets really cold, will it be enough? I mean we could rely on our old heating but this heating grid idea... [Resident, Case B]</p> <p>The people always see that when the heating breaks down in my home, then I can get a heating technician who simply fixes it. If the heating grid breaks down than that is a much larger issue, then multiple houses are affected – logically as there are many connected. But that seemed to worry many that they had to give up some control. [Initiative leader, Case E]</p> <p>I think many are simply afraid that they are surrendering something, that they lose autonomy, which is important to them. This [project] involves a certain uncertainty. I think you have to dare something if you are participating in such a project. [Resident, Case F]</p>
<i>Fears</i>	<p>I remember very well from a meeting that residents living close to the [proposed biogas] plant were afraid that the security dam might not hold or that there could be other issues. We had to especially address that. [Initiative leader, Case A]</p> <p>There were certainly concerns about the transport. The corn that needs [to be driven] through the village - yes, the fear there may be accidents, too much noise, or pollution in the village. [Resident, Case D]</p>

Initiative leaders therefore had to engage in a series of activities to mitigate institutional maintenance. Table 3.5 below offers an overview across cases. First, successful cases mitigated maintenance of the extant system by preempting push-back by those in the village who may have a vested interest in the status quo and could speak out to buttress anxieties in the village population. Where local heating technicians were present, whose primary business it was to sell and service individual home oil furnaces, successful initiative leaders sought to *coopt these potential local institutional custodians*. As a leader in Case D explains:

We won our local heating technician. He was promised to install and service the [heat exchange units] in each house. [...] So he switched each house over [to the heating grid] He has since been called also to [another initiative]. And so we saved his work and, I would say, made it even a bit more innovative. [Initiative leader, Case D]

In contrast, Cases B and F, failed to coopt these potential amplifiers for local maintenance activities, with respective negative consequences:

We have a heating technician here in the village, who moved here, and he sold a number of new oil furnaces. [...] I found that really saddening as that was when we had already started discussions about the [BEV initiative]. But people still did it. [Resident, Case F]

Initiative leaders found that homeowners who had just recommitted to fossil energies could hardly be interested in alternatives.

Second, initiative leaders sought to *reduce uncertainty* perceived by residents about possible bioenergy alternatives. They thus tried to remove the predictability benefit that the extant system enjoyed in individuals' minds. To do so, initiative leaders commissioned a feasibility study that would clearly assess the technological and organizational concept of the initiative and produced projected figures for costs and

returns. Across cases, this helped reduce worries about the respective initiative's viability. Furthermore, to alleviate uncertainty regarding the safety and reliability of the proposed bioenergy technologies, initiative leaders organized trips to existing biogas plants or heating grids and invited speakers with experience living with these technologies to recount their positive experiences.

We have then offered tours to [the pioneer village]. And then we were, I think, three to four times I was there. We took the people who were interested [...]. They [pioneer village residents] were very cooperative, have shown us everything. That was something special, first, to show that there is no smell or noise nuisance. We drove up there, stopped at the hill, got out and said: 'So, take a deep breath everyone. Any smell?' 'No' they said. 'Okay, let's drive a little closer.' Stopped. 'Do you hear anything?' 'No.' 'Good!' And then those [who were on the trip] were already a bit more convinced and less concerned. [Initiative leader, Case B]

We contacted a small village initiative which had done the same that we wanted. And so they came. Their chairman told us about it; to get everything going here, to make this palatable for us. Which was indeed received very well, I have to say. [Initiative leader, Case D]

While this was harder to accomplish for earlier cases, given the relative sparsity of available extant examples, well-chosen reference projects seemed a very effective way in mitigating residents' anxieties. As a resident of Case D describes it: "I hadn't had any concrete idea of how this would all look and work. [...] That I now could actually see it all, could get an impression of it all, that was really assuring." Three cases managed to organize actual visits to reference projects, not necessarily to extant BEVs but to small heating grids or farmer-run biogas plants. All cases were able to find speakers to deliver testimonials.

Notably, the failed Case F similarly sought to overcome skepticism of the local population by referencing an operational biomass project in close vicinity. While similar conditions made it technically a good model, it failed to be relatable for many resi-

dents for non-technical reasons. The initiators of the chosen example project were suspect to local village residents.

Well, that is a group of young people who just experiment a lot – spiritually but also in regards to free love. And so there are many, especially older people, who don't like it when they do their group parties and when things get a bit topsy-turvy. And so naturally those, especially the older people, didn't like it at all that this was presented as a reference project. [...] That was a pretty unfortunate choice to be referenced. [Resident, Case F]

Instead of reducing uneasy feelings about the initiative in their own village, the chosen example thus seemed to raise more doubts. Many local residents subsequently were lost for the project. As one of the initiative leaders explains:

Those who have formed fundamental reservations and fears and say 'No, I don't feel comfortable,' those you cannot win for this [BEV initiative]. Even with the best of arguments that is hardly doable. [Initiative leader, Case F]

In contrast, leaders in successful cases decided to showcase examples from communities similar to their own but with different technical specifications or organizational structures, allowing them to still claim the innovative contribution of their own initiative while assuring relatability. In addition to these collective activities to reduce uncertainty, initiative leaders also took considerable time for the concerns of each homeowner, visiting them individually. In most cases, initiative leaders decided strategically who would visit whom, to leverage existing personal trust relationships. In Case F, however, home visits fell primarily to one of the initiative leaders, who was not uniformly trusted in the village, with mixed results. As one resident explains:

[The initiative leader] is really nice and all, but he did have an argument with the former mayor. And in this regard, he isn't a one-hundred percent neutral person. He does a lot of really great ecological projects and really works for environmental protection but there have been these arguments. And so some are just blocking because they have had earlier arguments. [Resident, Case F]

Table 3.5: Overview of Institutional Maintenance Mitigating Activities across Cases

	Case A	Case B	Case C	Case D	Case E	Case F
<i>Coopting potential local institutional custodians</i>	N/A		N/A	+	+	
<i>Reducing uncertainty:</i>						
• commission feasibility study	+	+	+	+	+	+
• visit biogas plant/ heating grid		+		+	+	
• testimonials of speakers	+	+	+	+	+	-
• home visits from trusted leader	+	+	+	+	+	o
<i>Start-up time [years]</i>	5	4	3	5	3	failed
<i>Approx. fossil heat energy replaced</i>	75%	50%	95%	90%	70%	0%

+ used extensively

blank/no symbol means no attempts were undertaken

o limited attempts

- failed attempt and push-back

N/A = not applicable, as no individuals with potential vested interest in extant system present in village

Attaching Residents to Local Alternative

Successful initiative leaders not only worked to distance local residents and keep them from maintaining the institutionalized energy system, they also sought to foster commitment to institutional disruption. Given the (initial) reluctance of many village residents to fully surrender their oil furnaces and break away from the extant system for good, initiative leaders strove to attach residents to the local alternative instead. They engaged in two types of activities to do so. First, they worked to *identify residents with their local project*. Second, they *characterized their initiative as a pioneering project* in the national energy transition to take pride in.

To identify residents with the local initiative, successful initiative leaders formed task forces for interested village residents to contribute their own expertise and skills in developing the local alternative energy supply concept. These groups dealt with topics such as most appropriate bioenergy technology, biomass source, and or-

ganizational structures for local conditions. Moreover, initiative leaders used milestones to organize symbolic celebrations involving the entire village and emphasize the shared ownership of the local bioenergy project. Figure 3.4 shows images of the collective groundbreaking ceremonies organized in Cases A and D for example. In Case D in particular, every village resident was invited to bring his or her own spade and take part. Similar events were held in Cases C and E.

Figure 3.4:

Representative Data Excerpts: BEV Initiative Communal Celebrations



Public groundbreaking ceremony for biogas plant with federal ministers in Case A

Communal groundbreaking ceremony in Case D



Accompanying such efforts to involve local residents in the development of the BEV initiative, successful cases strongly showcased their efforts to disrupt the extant energy system as leading the way in the socially desired energy transition. In contrast to the negative moral emotions evoked vis-à-vis the institutionalized energy system, initiative leaders sought to evoke positive moral emotions concerning disruption. Highlighting their pioneering projects as leading the way in creating autarchy and development for their villages and/or mitigating climate change and protecting the environment for future generations seemed to resonate with residents.

I personally was really convinced to do something for the environment and many others were as well, really! And you can see that in that back then it was clear if we participated we would pay about as much as if we were continuing with oil. So initially there wasn't an advantage. That was really just conviction, I don't want to say the fun of it – but certainly a bit of pride that we have such a great project in our village. And I think that was part of it. [resident, Case A]

There is this principle of creating jobs locally and to support the farmers and craftsmen in our village that is this idea of the [BEV initiative], that you support the region, the people who live here, the craftsmen who offer their services here. That is what I like about it. It simply felt right to support that. [Resident, Case D]

Naturally, pioneering claims were easier to support for earlier BEV initiatives than later ones. However, also Case E in my data, for example, managed to make village residents see their efforts as pioneering, by asserting “unprecedented scale and complexity of their initiative”. They claimed that no existing BEV would “reach the level of the concept planned in [their village]” [Initiative leader as quoted in local news article, Case E].

To showcase the pioneer character of their respective initiatives, successful initiative leaders engaged in several supportive activities. They highlighted positive media attention and interest from visitors to their projects to their local populations.

Having such reinforcing and admiring attention showed village residents that they could be proud. An initiative leader explains:

Internal communication is aimed at further increasing the participation of the members of the cooperative and residents of [our village] in the project. And so also to increase and renew the pride in the project. So that the people see that we are doing something really great indeed, we are an awesome village community. [Initiative leader, Case A]

And indeed, residents responded very favorably to such reinforcements (see also Table 3.6 for additional data excerpts):

Well, it spread so much that we had TV teams from Canada, Korea, and Japan visit even before the [biogas] plant was completed. [...] And so we had, as I said, we had gotten so much interest by radio and TV that that brought about, that we had times with up to 6.000 visitors in a year here. [...] Well, I think that is also a testament to how great this project is. [Resident, Case A]

About four weeks ago, [initiative leader] did a great guided tour for the regional broadcasting network, which was on TV, in the regional news. That were about three to four minutes of this report, where we were acclaimed as the largest Bioenergy Village in Germany. [...] So far everything is going really well. We are really proud that we have achieved something like this. [Resident, Case E]

Initiative leaders also sought formal accolades such as FNR recognition as a BEV initiative, to help further buttress a local sense of pride, resonating with residents: “I have got to say, [I feel] a certain pride. [...] This acknowledgement as a Bioenergy Village - that is acknowledgement that this is a really good thing” [Resident, Case D].

These activities for building attachment to the local alternative not only served to render disrupting the institutionalized system more appealing to residents but also to stabilize the disruptive alternative structures and practices locally. My data indicate that the positive moral emotions evoked also helped initiative leaders maintain commitment to institutional disruption during times of falling oil prices or other developments that threatened continued support by residents. Case E, for example, faced fall-

Table 3.6: Representative Data Excerpts of Evoked Positive Moral Emotions

<i>Satisfaction of doing good</i>	<p>You hope that you will someday be better off because right now you can see that it is basically the same [financially, as oil heating] In addition you are doing something for the environment now. And for the region. The money does simply stay here. So that was the main idea, you do do something. Even if it is not that easy at the moment but there are pros and cons everywhere. Well, if it was now, let me say, I would need to see but probably I would again say: I do participate in this cooperative. It is the right thing to do after all and I am happy to support it. [Resident, Case D]</p> <p>If I simply compare the oil price with the heating price now, then the oil price is still cheaper. [But] now if there is another oil tanker shipwreck somewhere, then we can say: ‘Well, we aren’t guilty [for the environmental damage].’ (Laughs) Yes, seriously though, that makes me feel good. [Resident, Case D]</p> <p>I have a really good feeling about it, a really good feeling, I have to say. We are really excited to have many people visit to see the project. And that is a form of recognition that we are getting. It is a certain appreciation. I have to say I see this whole initiative very favorably. [Mayor, Case E]</p>
<i>Pride</i>	<p>In general, you can say that the residents are really quite proud to have become a BEV. And proud that so many visitors are coming. There are also frequently journalists who report on the village. It is a great initiative and many totally support it. [Municipal worker, Case C]</p> <p>I think there is this community – I think, this community spirit certainly here. I think if I can contribute a bit to this overall project... (pause) See, there is a certain pride involved in helping my village. [Resident, Case D]</p> <p>We are writing history here’, a village resident proudly acclaims. ‘We will be using heat 100% sourced from renewable energies. [Local media article, Case E]</p>

ing oil prices right while it was in the most active phase of convincing local residents to sign long-term contracts with the BEV project. Having established some attachment amongst local residents seems to have functioned as a buffer against these potentially threatening developments.

When, like yesterday, the heating oil price hits rock-bottom, naturally questions arise. [...] But on the other side ... we already had people from Japan here with this convention. [Initiative leader] will be flying to Japan in February. Think about that – Japan! On invitation of some kind of environmental organization to give a presentation about our initiative. Naturally, we are really proud of that when we are of interest, when our efforts find some acknowledgement. We also want that the idea that we had is working out. That we are not overpaying and that we beat oil costs or are not more expensive, sure. And I am still totally confident that we will realize that and I am still committed to the [BEV] idea. [Resident, Case E]

I found similar evidence in Cases D and A. Observing a village meeting in Case D, I saw how initiative leaders managed to get support for a local heat price increase. They initially tried to justify the price increase primarily by market developments. Showing graphs of how also the oil price had increased, discussing prognoses of how it may rise further. Yet, this was met by many critical questions and responses of the gathered audience. After about 20 minutes of discussion, the local mayor shifted the focus to more emotional appeals, arguing how the heating grid had strengthened the community and had contributed to development of the village. He closed with:

I maintain: Where there is energy, there is growth. Where there is growth, there is progress. And where there is progress, there is life. We are creating this for ourselves and the future of our [village]. These are also important assets. Non-monetary assets – let us continue to lead the way here. [Mayor, Case D]

He effectively tapped into the sense of pride and accomplishment that residents had come to feel for their project. The motion to increase the heating price carried. Similarly, I observed a meeting in Case A to discuss major reinvestments into the local infrastructure to expand capacity and operational flexibility. Initiative leaders stressed that this would keep the village “at the forefront of the ecological modernization of energy supply,” again highlighting the pioneer character of their initiative to buttress support. Given the fact that BEV initiatives still very much constitute an exception to the dominant energy system surrounding them in rural Germany, attachment appears to function as an important stabilizing mechanism for local institutional disruption.

In contrast to the most disruptive cases, initiative leaders in Cases B and F did not place much emphasis on evoking positive moral emotions vis-à-vis their initiatives by positioning it as a pioneer project in the energy transition. As the initiative leaders summarized:

The intention was to simply copy the model [of Case A] one to one. It worked there so it should also work here [... In convincing local residents] these good ideas about local supply and keeping the money in the region and especially the climate goals; that's all great, all wonderful, but now I get to the point: When you offer energy cheaper than the market, you have customers. Very simple. [Initiative leader, Case B]

You know, there are nationally quite a number of projects under the banner of Bioenergy Village [...] and so there are many good and functioning examples. And in this respect we have a good pool of experiences which we can draw on and say that is not just some strange idea but that is already practiced successfully in other villages. You just have to do it! [Initiative leader, Case F]

They thus seem to have foregone the benefit of being perceived as pioneering, failing to evoke the same extent of positive moral emotions for local disruption efforts in their village populations as the more successful cases. Table 3.7 summarizes the pattern of attaching activities across cases.

Table 3.7: Overview of Attaching Activities across BEV Cases

	Case A	Case B	Case C	Case D	Case E	Case F
<i>Identifying with local alternative:</i>						
• Initiate local task forces	+	+	+	+	+	
• symbolic celebrations	+	○	+	+	+	N/F
<i>Showcasing pioneer character:</i>						
• showing media attention	+		+	+	+	○
• showing visitors	+		+	+	+	N/F
• seeking formal accolades	+	○	+	+	+	N/F
<i>Start-up time [years]</i>	5	4	3	5	3	failed
<i>Approx. fossil heat energy replaced</i>	75%	50%	95%	90%	70%	0%

+ used extensively

blank/no symbol means no attempts were undertaken

○ limited attempts

- failed attempt and push-back

N/F = not feasible, as initiative did not progress enough for leaders to be able to use tactic

Discussion

This study extends prior field-level investigations of institutional disruption (e.g., Ahmadjian and Robinson, 2001; Davis et. al. 1994; Maguire and Hardy, 2009) by revealing the work involved in moving individuals to break with taken-for-granted institutions on the ground. I unpack how local initiative leaders build on antecedents of deinstitutionalization (Oliver, 1992), specifically legislative changes and national discourse on an “energy transition”, to compel residents in rural Germany to discontinue their habitualized use of the dominant fossil energy system. I identify three interconnected and mutually-reinforcing tactics initiative leaders use. They distance residents from the institutionalized fossil energy system by evoking negative moral emotions concerning its perpetuation as they reveal associated problems. They curb institutional maintenance locally, by coopting potential institutional custodians in their village and by mitigating anxieties of residents, as they reduce uncertainty concerning the feasibility, reliability, and viability of the emerging local BEV alternative. Lastly, they attach residents to this alternative by identifying them with their project and by evoking positive moral emotions in supporters.

The most disruptive cases were those in which initiative leaders effectively and extensively engaged in all three of these tactics and their various constituent activities (see Tables 3.3, 3.5 and 3.7 for a summary). In fact, my findings suggest that the three tactics are mutually reinforcing and at least for some constituent activities also mutually dependent. For example, some attaching activities were not feasible for initiative leaders in the failed case because they never gained enough local support to begin erecting alternative energy infrastructure in their village, preventing them from cele-

brating symbolic milestones such as a ground-breaking or seeking formal accolades for their project. As many of their attempts at distancing and keeping their local residents from perpetuating the extant fossil energy system failed, they also had limited options to engage in attaching activities. At the same time, in cases where attaching activities were carried out successfully, the distancing of local residents from the extant system was amplified by the emotional contrast between the negative feelings towards the dominant institutional arrangements versus the positive feelings towards the emerging local alternative. Overall, the three tactics of distancing, mitigating maintenance, and attaching are thus mutually reinforcing. While not every constituent activity of the three tactics needs to be effectively carried out to attain some success in local disruption, as illustrated by the intermediately successful Case B, the more activities initiative leaders successfully employ the greater the extent of local disruption achieved.

Implications for Theory and Directions for Future Research

The study contributes new insights to and has implications for research on institutional disruption and the emerging body of work on emotions in institutional theory. First, contrary to what one would expect based on prior research (Ahmadjian and Robinson, 2001; Greve, 1995), particularly successful BEV initiatives did not couch their efforts as replicating prior success examples elsewhere but worked hard to position them as relatively pioneering. My study suggests that the cognitive focus of prior research may have masked an important tradeoff. Prior research suggests that justifying local disruption by reference to other examples should bestow cognitive legitimacy (Hannan and Carroll, 1992; Greve, 1995) and disperse skepticism (Ahmadjian and

Robinson, 2001; Strang and Meyer, 1993). I find that while initiative leaders use other examples to mitigate anxieties, the particularly disruptive cases assured that local residents would not simply see their efforts as replication but as at the forefront of the national energy transition. This enabled them to evoke mobilizing positive moral emotions. The most disruptive local initiatives thus balanced justifying their project by reference to others, with casting their project as pioneering to inspire pride and satisfaction in doing good.

This suggests an emotional benefit of being perceived as pioneering, which may help explain early disruptive activity despite uncertain economic returns common in pro-environmental, social, or technological innovation. Feeling at the forefront of such developments may help move individuals to depart from the previously taken-for-granted. However, my study suggests that this may be contingent upon favorable field conditions. Without the development of the energy transition debate and broad public support for this agenda in Germany, it is unlikely that initiative leaders could have tapped into these sentiments and used media attention, showcasing visitors, and formal accolades to boost positive moral emotions amongst their village residents.

A promising direction for future research thus is to compare field contexts characterized by different antecedents for deinstitutionalization (Oliver, 1992) to help extend our understanding of potential differences in the concrete practices of disruptive institutional work required. For example, one might expect that leveraging moral emotions to move individuals to disrupt institutions is particularly effective in fields facing social or political pressures for change. In contrast, institutional arrangements

facing functional challenges might require less emotive disruptive work to be abandoned on the ground.

Second, prior research leads us to expect that most effort in institutional disruption will go into directly undermining the extant institutional arrangements (Oliver, 1992; Creed et al. 2014). In particular, research on the discursive work to disrupt institutionalized practices has revealed the important role of problematizing the thereto taken-for-granted arrangements (Maguire and Hardy, 2009). Yet, I find that disruptive BEV initiatives invested considerable effort in creating new emotional attachments to local alternatives, not just undermining extant arrangements. This unexpectedly parallels recent findings on institutional creation. Investigating emotional dynamics implicated in discursive work to institutionalize the Euro in Finland, Moisander, Hirsto, and Fahy (2016) find that government agencies sought to inspire national pride and evoked a sense of duty to build support for the introduction of the Euro and the associated novel institutional arrangements. My data suggest that also in disruptive institutional work, while not aimed at building new but discontinuing old institutions, some activities are aimed at building new attachments. Although of localized scope, initiative leaders engaged in work to attach individuals to alternatives to the extant system. This is necessary to prevent the perpetuation of the more assuring status quo. It counters the predictability benefit extant institutional arrangements enjoy in peoples' minds. Indeed, one of the biggest obstacles for institutional disruption I find in this study is the anxiety-inducing uncertainty that comes with it. Most residents were hesitant to break with the familiar, even keeping a 'back-up plan' to return to the old energy system for a while after already having committed to local disruption on paper.

Whereas a purely cognitively focused investigation might have concluded that distancing individuals based on revealing problems in the extant system may be enough for institutional disruption, my analysis also attending to implicated emotional dynamics reveals that arising anxiety due to uncertain alternatives may stall institutional disruption. The leaders of successful BEV initiatives thus invested considerable efforts in reducing uncertainty and attaching individuals to their local projects. This also helped them stabilize localized disruption in the face of unfavorable developments, such as falling oil prices. By making their alternative “feel right”, BEV initiative leaders thus overcame hindrances to disruption and secured their achievements in their villages. This may be particularly important in early phases of institutional disruption, where the dominant institutional arrangements could at any time be reasserted. Savvy initiative leaders may further complement this tactic by coopting potential institutional custodians (Dacin and Dacin, 2008) to avoid counter-mobilization.

Future work may gainfully continue this avenue of inquiry. More research is warranted to better understand the necessary distribution of efforts between undermining and attaching activities as the deinstitutionalization of extant arrangements progresses. Later phases of deinstitutionalization might require less stabilization of (localized) disruption achievements and allow change agents to focus on undermining the previously taken-for-granted. This could help explain faster progression of institutional dissipation in later than in early phases of deinstitutionalization.

Third, my study reveals the potent effect of juxtaposing negative and positive emotions. It thus speaks to calls for more research on “combinations and interaction of emotions” that elicit agency (Jasper, 2011, p. 291; see also Fan and Zietsma, forth-

coming). Successful BEV initiatives evoked negative moral emotions of collective guilt and indignation vis-à-vis the institutionalized energy system and contrasting positive moral emotions of satisfaction doing good and pride vis-à-vis their proposed local alternative. My findings support Jasper's (2011, p. 291) assertion that "moral batteries" of contrasting emotions may be particularly effective in spurring action. Particularly in cases of institutional disruption such juxtaposing may be important as institutional agents do not just seek to add new arrangements but to break with existing ones. Studying institutional creation, Fan and Zietsma (forthcoming; see also Ruebotom and Auster, forthcoming) found that positive emotions towards others made individuals more open to create new shared institutional arrangements, while maintaining their original institutional attachments. In contrast, my findings suggest that for actual displacement of original attachments the juxtaposition of negative and positive emotions may be required.

Moreover, the combination of negative and positive emotions is likely also more impactful and durable than relying on negative emotions alone to distance individuals from dominant institutional arrangements. Previous work suggested shame (Creed et al. 2014) and guilt (Tracey, 2016) as possible motivators to break with the taken-for-granted. However, as both are negative emotions, institutional agents have incentives to rid themselves of these emotions, rendering their effects rather transient. In contrast, offering individuals the opportunity of feeling good about themselves and being able to express and share their pride can create incentives for continued commitment (Dutton et al. 2006; Massa et al. 2017). Extending prior research, my study

thus suggests a particular importance of juxtaposing emotions in disruptive institutional work.

It also highlights a promising avenue for further research. Future studies may help us develop a systematic understanding of the differences in the emotional processes implicated in different types of institutional work. We still have much to learn about the types of emotions or *combinations* of emotions implicated in the various practices aimed at disrupting, maintaining, or creating institutions. As scholarship on emotions and institutions continues, we are likely to gain more surprising insights into the emotional dynamics lurking beneath the cognitive and structural processes we have thus far focused on in explaining the waxing and waning of institutional arrangements (cf., Fan and Zietsma, forthcoming; Jasper, 2011).

Implications for Practice

On a practical level, my study suggests that couching a disruptive localized initiative as pioneering may benefit its possible impact. Simply claiming to follow the success of related initiatives elsewhere does not seem to hold the same mobilizing potential. Moreover, invoking emotive moral arguments may be particularly promising and important if disruptive initiatives are aiming for social innovation. Such change initiatives, are often complicated by the tragedy of the commons (Hardin, 1968), where participation may not appear individually rational, despite being collectively rational. Thus, where individual material rewards are uncertain or lacking, contrasting moral emotions may offer an important lever for mobilization. Social innovation initiatives may gainfully exploit the opportunity to highlight the perpetuation of extant arrangements as compounding societal challenges to evoke negative moral emotions.

Concomitantly, disruption can be positioned as furthering socially desirable causes to evoke contrasting positive moral emotions. Making it a matter of collective guilt vs. pride for individuals to break with unsustainable structures and practices offers them incentive and a personal reward, having a good conscience and being recognized, if they decide to participate.

Conclusion

To advance our understanding of the micro-foundations of institutional disruption, I investigated Bio-Energy Village initiatives in Germany which ask local residents to discontinue their use of the dominant fossil energy system. I found that to compel individuals to break with unsustainable institutional arrangements, initiative leaders leveraged moral emotions to distance individuals from their taken-for-granted roles and habitualized practices and to attach them to local alternatives. To curb individuals' drive to perpetuate familiar institutional arrangements, initiative leaders reduced anxiety-inducing uncertainty and coopted possible institutional custodians. My findings offer new insights into the role of emotions in moving individuals to break with taken-for-granted social arrangements. They remind us that institutionalized systems are relatively "sticky" (Scott, 2013) and require considerable effort to be disrupted (Lawrence and Suddaby, 2006). They suggest juxtaposed moral emotions as a potential lever to sever individuals' institutional attachments. Given the continued prevalence of unsustainable institutional arrangements, and the relative dearth of research focused on disruptive institutional work (Lawrence et al. 2009), I hope that this study will help inspire more scholarship in this important area of inquiry.

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CHAPTER 4

CONCLUDING CONSIDERATIONS

In this dissertation, I set out to advance our understanding of how collective enterprise can instigate sustainable change in established markets. I inductively investigated two recent examples of community-based entrepreneurial models that are contributing to recent decentralization and sustainability trends in an industrialized economy: Renewable Energy Source Cooperatives (RESCoops) and Bio-Energy Village (BEV) initiatives in the transitioning German energy sector. As highlighted above, the empirical studies of this dissertation offer a number of contributions to the literatures on social entrepreneurship, hybrid organizing, and institutional work.

Jointly, this research also speaks to open questions in the entrepreneurship literature on community-based organizing more generally. The study of both RESCoops and BEVs highlights that while these entrepreneurial ventures are of a collective nature, managing the constituent individuals' experiences with the collective organization and the entrepreneurial process are of considerable importance for the success of such endeavors. With a recognized need in the literature to engage in "more micro, practice-oriented, highly contextual work" (Jennings et al. 2013, p. 2), the empirical studies of this dissertation offer implications for this research. The studies highlight important differences to "classic" entrepreneurship settings, alerting researchers to different individual factors to consider when shifting the focus from lone founders or traditional start-up teams to communities collectively engaging in entrepreneurial activity (cf., Haugh, 2007).

In particular, they highlight the importance of managing individual participants' values and emotions in maintaining support and resources for community-based ventures. While most entrepreneurship research has focused on the emotional experiences of a single founder or core start-up team at the different stages of the entrepreneurial process (Cardon et al. 2012), Chapter 2 illustrates how vital it is for collective entrepreneurial ventures to find reliable strategies to maintain satisfaction also of more distant and heterogeneous supporters of such organizations. By avoiding disappointment amongst different stakeholder groups, collective enterprises maintain access to resource pools untapped by traditional ventures in the established markets they operate in. By offering motivating value propositions beyond economic benefit, they are further able to engage individuals in entrepreneurial processes, who would usually not consider such endeavors. Value mobilization and emotion management may thus be answers to the key challenges of building local entrepreneurial cultures and finding competitive advantage for collective, social enterprises (e.g., Hockerts, 2015; Martí et al. 2013), enabling change towards greater sustainability.

In a similar vein, Chapter 3 highlights the importance of widening the spectrum of emotions considered when studying individuals involved in community-based, collective entrepreneurship. Most work to date in entrepreneurship research has focused on founder's emotions and emotion transfer to others (Cardon et al. 2012). Especially, "entrepreneurial passion" has gained considerable attention as a key construct (eg., Cardon et al. 2009). The study of BEV initiatives, however, highlights the potential for other emotions, in particular moral emotions of guilt, shame, and pride, to mobilize community members for collective entrepreneurial activity. These may be par-

ticularly relevant in understanding how individuals who, due to their risk aversion, would usually shy away from entrepreneurial activity might nonetheless be compelled to join collective ventures for sustainable change. Instigation and contagion of such moral emotions may help grow the circle of individuals involved in such endeavors beyond the passionate founding team.

Notwithstanding the contributions of the research reported in this dissertation, it naturally is not without its limitations and scope conditions. It only represents a first step in addressing how community-based, collective enterprise can instigate sustainable change in established markets. Given the qualitative, inductive nature of this work, the transferability of the insights generated in this dissertation will need to be verified through theory testing, deductive research approaches and in other empirical contexts. There is reason, however, to expect that many of the insights may be relevant to similar organizational settings. For example, collective entrepreneurship in sustainable food and agriculture or sustainable manufacturing and craft production is likely to also be value-laden and emotion-evoking for the individuals involved. Similar moral dilemmas may occur for supporters of such initiatives with divergent value priorities and similar moral emotions may be able to be leveraged to instigate participation in transitions towards greater sustainability. The transferability to other contexts of collective enterprise, such as public-private partnerships or company consortia for sustainability projects, which tend to be less community-based is open to speculation. It stands to reason that the community-based nature of the collective enterprises studied in this research may prove an important scope condition for the theoretical insights developed. This is however an open empirical question.

It therefore is my hope that this dissertation will inspire future work on the insipient phenomenon of collective entrepreneurship, particularly as it is employed to foster sustainability transitions. By conducting such work, we may, as organizational scientists, “join global efforts at understanding and solving persistent, but tractable, Grand Challenges” (George et al. 2016, p. 1881; Howard-Grenville et al. 2014), contributing not only rigorous but also highly relevant theoretical insight for future organizational development (Corley and Gioia, 2011). This research domain can enable us to not only extend organizational theory but also to “anticipat[e] and influenc[e] the type of managerial knowledge needed to deal with coming societal and organizational concerns” (idem, p. 23).

A particularly promising direction for future inductive inquiry in collective entrepreneurship building on the research reported in this dissertation is to consider issues of growth. To live up to their promise of affecting sustainable change, it is important that such initiatives grow in prevalence and reach in established markets. Future research may fruitfully explore how innovative organizing models, such as the concept of a RESCoop or BEV, can diffuse within a sector that in the course of the industrialization of the past has only seen consolidation trends. What facilitates greater market penetration of community-based organizing approaches? What challenges exist in replicating such models in other local settings in the same market? What role do novel technologies, such as blockchain smart grid solutions, play therein? Similarly, future research is needed to understand how community-based entrepreneurship can scale. Given their explicit local orientation to foster sustainable regional development, how can such entrepreneurial endeavors continue on a healthy growth path without

losing their mission? How can the sustainability benefits of a decentralized system be safeguarded while economies of scale are likely to favor consolidated entities? How can collective enterprises instigated by volunteer idealists successfully professionalize and still maintain their founding values?

We are only at the beginning of understanding the exciting organizational developments in transitioning sectors with the advent of numerous alternative organizing models to the corporation that has dominated economic life over the past century. Society's organizing potential (Stinchcombe, 1965) seems to be undergoing considerable change, and it remains to be seen how the Grand Challenges of our time will impact patterns of organized economic life. As students of organizations we may help ensure that organizing approaches promising greater sustainability become better understood and prosper, contributing to our societies that afford us the luxury of rigorous scientific inquiry and continuous scholarship.

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Appendix I: Coding Manual for Emotions

Code	Definition	Example
<i>Anxieties:</i>		
Worry	nervousness about or unease with an actual or impending event, situation, or circumstance	I felt pretty unsure about it. Things that are new obviously make you question, you have to guess, can that work at all or are they misleading us. It was definitely disconcerting to me at first. [Resident, Case 5]
Fear	pronounced unease with an actual or impending event, situation, or circumstance	I remember very well from a meeting that residents living close to the [proposed biogas] plant were really afraid that the security dam might not hold or there could be other issues. We had to especially address them. [Initiative leader, Case 1]
<i>Negative moral emotions:</i>		
Sense of collective guilt	dissatisfaction with oneself or one's own action(s) or lack of action(s)	... so it is sort of, well, maybe also a way to sooth your conscience – your environmental conscience – that you have finally done something for that... [Resident, Case 5]
Indignation	dissatisfaction with situation, circumstances or others' action(s)	We will still in a hundred years not be able to do without oil. Maybe we have to produce it synthetically then, who knows, but we do not need to waste it for unnecessary things. I always hate to see things squandered. [Resident, Case 5]
<i>Positive moral emotions:</i>		
Satisfaction of doing good	satisfaction with an action, situation, or circumstances perceived as right	... now if there is another oil tanker shipwreck somewhere, then we can say: 'Well, we aren't guilty.' (Laughs) Yes, seriously though, that makes me feel good. [Resident, Case 4]
Pride	elated satisfaction with one's achievements or one's involvement in a process or social object	... we are proud that we accomplished this together in the cooperative, for the whole community. [Resident, Case 1]