*DOI:*
10.1016/j.scaman.2023.101280

# Tracing the affective journey of an interorganizational network: Positive and negative cycles of relational energy in a network space

**Forthcoming, *Scandinavian Journal of Management***

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**Acknowledgments:** I gratefully acknowledge funding received through a Research Fellowship by the German Research Foundation (DFG), grant number FO 1024/1-1, and through the Research Incubator Fund 2017/2018 provided by King's Business School. I further thank the University of Michigan's Department of Sociology for having hosted me in 2016, and Robin Burrow, Maureen Kinyanjui, and Charlene Zietsma for helpful feedback on an earlier version of the paper. Finally, I thank John Ulhøi and Jaana Tähtinen for their editorial guidance, and the two *SJM* reviewers for their constructive comments, which have helped me to improve the paper.

# Tracing the affective journey of an interorganizational network: Positive and negative cycles of relational energy in a network space


## Abstract

While there is a lot of research on emotions at the small group level, we lack an understanding of the role of emotions at the large group level, including in interorganizational relationships. This study contributes to filling this important gap in the literature by studying the emotions in an interorganizational network longitudinally over a period of six years. The data reveal how the network offers a particular kind of space in which relational energy emerges, amplifies, can deplete, and can be re-set and turned around. The findings show how network emotions are recursively related to network outcomes, specifically the extent to which the common goal is achieved. This paper contributes to the growing literature on emotions in organization studies by shifting attention toward the important role of context, and it theorizes the interorganizational network as a particular kind of context where individuals interact in a semi-structured manner, with important implications for the interdependent relationship between individual emotions, relational energy, and network properties and outcomes.



**Keywords:** organization theory, interorganizational networks, emotions, qualitative case study, longitudinal case study, apprenticeship.


## 1. Introduction

Interorganizational networks, defined as "a group of three or more organizations connected in ways that facilitate achievement of a common goal" (Provan, Fish, &

Sydow, 2007, p. 482), constitute a setting in which emotions play an important role (Raza-Ullah, Bengtsson, & Gnyawali, 2020). Emotions "represent relatively specific feelings, such as joy, happiness, pride, anger, guilt, and sadness, that arise in response to a discernible stimulus such as an event, an object, or an affiliation" (Menges & Kilduff, 2015, p. 849). As such, discrete emotions and their valence—positive or negative—are linked to some kind of stimulus. In the context of interorganizational networks, emotions can be linked to the process outcomes of the group effort. For example, a positive group emotion "might reflect group members' collective perception of events signaling that the group is meeting or expecting to meet its goals" while a negative group emotion "might suggest that a group is seen as not meeting or struggling to meet its goals" (Menges & Kilduff, 2015, p. 896). As such, the perception of whether the network is successful in 'achieving its common goal' can constitute a critical stimulus affecting emotions at the network level.

Group emotions constitute a key theme in the literature. However, as highlighted by Menges and Kilduff (2015) in their review, the majority of research in this space has looked at small groups, specifically teams. In particular, Menges and Kilduff (2015) made the surprising observation that hardly any research has been carried out on group emotions in interorganizational settings, such as alliances and networks. This is all the more surprising because there is strong evidence that emotions are important in helping to explain the nature of interorganizational relationships (Tähtinen & Blois, 2011). This paper seeks to help address this important lacuna. Consequently, I ask the following research question: *How do group emotions evolve in an interorganizational network over time, and what are the implications for the collaborative endeavor?*

To answer this research question, I conducted a qualitative case study of an interorganizational network: Training Consortium (a pseudonym). Training Consortium is an interorganizational network comprising private firms, local community or technical colleges, and a state agency. Formed in 2013, its aim is to offer apprenticeship-based training programs in the American Midwest. While apprenticeship training is well established and generally respected in many parts of the world, particularly in Europe, it suffers from a certain stigma in the United States (U.S.) (Fortwengel & Jackson, 2016; Hall & Soskice, 2001). Correspondingly, one of my interview respondents maintained that most people in the U.S. think that "apprenticeship is for losers," and another one stated that "we are working very hard to change the conversation that the only valuable education is a four-year university degree." In this study, I trace the affective journey of Training Consortium as members sought to 'change the conversation.' In my research context, 'achieving the common goal' of offering apprenticeship programs is therefore challenging, and members of Training Consortium indeed made the experience that their offer was not met with as much enthusiasm as they had hoped: the number of apprentices, partners, and apprenticeship programs remained disappointing, despite significant effort.

After tracing the evolution of Training Consortium over a period of six years, from 2013 to 2018, I discovered how the various network properties and processes, as well as outcomes, created different kinds of relational energy over time. As established by Provan et al. (2007, p. 489), network properties and processes describe the "structure, development or evolution, and governance" of the network. Network outcomes are very network specific and depend on the particular 'common goal' of the network (Provan & Milward, 1995); in the case of Training Consortium the successful offering of

apprenticeship programs. Relational energy is closely linked to emotional energy, which describes "the capacity to do work where the source is affect" (Baker, 2019, p. 374). Specifically, "'[r]elational energy' is the concept that represents the emotional energy generated (or depleted) in social interactions. […] Relational energy is not a different type of energy. Rather, it denotes that interactions are a source of emotional energy" (Baker, 2019, p. 381; quotation marks in original).

My data show how the creation of Training Consortium, during phase 1, came with positive emotions, yielding significant relational energy, which was put to work toward marketing the novel program; during phase 2, after facing significant headwinds and negative feedback from the environment, the group experienced negative emotions, and, consequently, the depletion of relational energy, which materialized, for example, in the retreat of some members and the discontinuation of some programs, limiting the group's capacity to engage in working toward the 'common goal'; finally, during phase 3, and after having come together as a network to re-energize, the members experienced positive emotions again, and the build-up of revived relational energy, which enabled the group to keep working toward their 'common goal' again.

Bringing together two bodies of literature which so far have largely developed independently of each other (Menges & Kilduff, 2015)—the literature on (group) emotions research and that on interorganizational networks—my study charts new territory by tracing the affective journey of a network. My study offers two main contributions. First, I contribute to research on group emotions by positioning and theorizing interorganizational networks as offering a particular kind of space that facilitates the emergence, amplification, possible depletion, and turning around of group

emotions. Specifically, I draw on the literature on space to argue that networks offer an isolated space (Weinfurtner & Seidl, 2019) in which individual members can interact, make sense of network properties and processes as well as outcomes, and experience relational energy.

My second contribution is in the field of research on interorganizational networks. While there is a large and growing body of research seeking to uncover the various tensions involved in interorganizational relationships (Berends & Sydow, 2019), the role of emotions in explaining the occurrence and implications of these tensions is still underdeveloped. Along similar lines, while there is an established stream of literature looking at various relationship factors, such as trust, the link to emotions as a possible undercurrent again remains opaque. I contribute to the literature by tracing emotions in an interorganizational network, and by thereby presenting emotions as an important factor recursively related to network properties and processes as well as outcomes (Provan et al., 2007).

## 2. Theoretical background

### *2.1. Group emotions: Toward the large group level*

Emotions can be defined as involving "a transient feeling state with an identified cause or target that can be expressed verbally or non-verbally" (Maitlis, Vogus, & Lawrence, 2013, p. 223). There is a substantial body of literature on emotions in organization studies and management, with the bulk of it focused on emotions as they occur in the setting of a single organization (Elfenbein, 2007). Here, key research domains involve dyads (e.g., supervisor-subordinate), small groups (e.g., teams), and mid-size groups (e.g.,

departments or organizations) (Menges & Kilduff, 2015). There is insufficient research on emotions at the large group level, including at the level of interorganizational relationships. In fact, in their review, Menges and Kilduff (see 2015, p. 850) did not find a single study that looks at emotions at the level of alliances or networks. This is surprising given the growing appreciation that, compared to emotions taking shape within the boundaries of a single firm, "emotions arising in interfirm contexts […] may be mixed and more challenging," with corresponding calls "for studying emotions and their implications in such settings" (Raza-Ullah et al., 2020, p. 1). My study heeds these calls by specifically looking at 'emotions arising' in an interorganizational context.

Recent theorizing on the emerging topic of emotions in interorganizational settings has taken the perspective of the focal firm (Raza-Ullah et al., 2020). A view on the group as a whole—or what has been termed the 'whole network' (Provan et al., 2007)—can complement this firm-level perspective in a meaningful way. It is well understood that both positive and negative emotions are experienced in different (inter-)organizational settings (Kroon & Reif, 2021). Yet little is known about how these emotions matter, and how they are recursively related to the ability of network members to achieve their 'common goal' (Provan et al., 2007).

Much prior work in this area has studied the role of emotions in influencing a certain outcome (Tasselli, Kilduff, & Menges, 2015). For example, Kudesia (2021) studied the role of anger in crowds for the emergence of a social movement strategy, Liu and Maitlis (2014) explored how emotional dynamics are linked to strategizing in top management teams, and Vuori and Huy (2016) showed how fear hindered successful innovation outcomes at Nokia. A related stream of research has looked at how emotions

can be purposely manipulated, for example over the course of 'emotional resonance work' (Kouamé, Hafsi, Oliver, & Langley, 2022). Indeed, in their review, Tasselli et al. (2015, p. 1377) identified that the way individuals use emotions strategically to shape network outcomes is an important avenue for future research.

There are reasons to believe that the relationship between emotions and outcomes of interest, such as innovation (Vuori & Huy, 2016) or stakeholder beliefs (Kouamé et al., 2022), is more complex and interdependent. Indeed, one core assumption in emotions research is that emotions arise in response to a trigger or stimulus. While this trigger can affect an individual, it can also pertain to a group. And these emotions, in turn, can shape action which can have a subsequent effect on the source of the trigger. In line with appraisal theory (Lazarus, 1991), it is important to address what emotions individuals experience as they appraise events and how they are impacting their goals.

When these events affect a group and its goals, appraisals and emotions take a more collective nature. One key way in which emotions become shared within a group is through sensemaking—"the process by which group members arrive at a collective interpretation of events that happen to and within their group" (Menges & Kilduff, 2015, p. 864). In other words, events as stimuli need to be interpreted or made sense of first, which then forms the basis of the emerging group emotion in response to such an event. These collective sensemaking processes often play out during group interaction.

Frequently, the result of these sensemaking processes involves the creation of emotional energy—"the capacity to do work where the source is affect" (Baker, 2019, p. 374)—whereby affect is an umbrella term for a variety of constructs in the field of emotions. For Collins (2004), emotional energy is produced and reproduced in "'chains'

that become routinized into social structures" (Baker, 2019, p. 387; quotation marks in original). Crucially, an interorganizational network brings about such 'chains' by organizing group interactions, which leads to the following discussion of networks and emotions.

### *2.2. Interorganizational networks and emotions*

Interorganizational collaboration is a critical means to address firm-level (Powell, Koput, & Smith-Doerr, 1996) and wider societal challenges (Jarzabkowski, Bednarek, Chalkias, & Cacciatori, 2019). While a substantial body of literature has investigated the conditions under which organizations choose to collaborate, and how collaboration can be organized or governed, growing scholarly attention has shifted toward examining the dynamics in and of interorganizational relationships. In their seminal paper, Ring and Van de Ven (1994) speak of a 'relationship journey,' as interorganizational collaboration is negotiated, committed to, and executed. In this paper, I seek to map the 'affective journey' of an interorganizational network, and how it may be recursively related to the 'relationship journey' in terms of network properties and outcomes (Ring & Van de Ven, 1994). Here, network properties describe the nature of the relationship while outcomes capture the extent to which the 'common goal' of the network is attained (Provan et al., 2007).

Recent research suggests that interorganizational collaboration gives rise to emotional ambivalence, or "a blend of simultaneously positive and negative emotions" (Raza-Ullah et al., 2020, p. 2). However, what is less well understood is how exactly such ambivalence may come about, and whether there are times when the group experiences

(predominantly) positive or negative emotions. A more nuanced and granular view of positive and negative emotions over time could add important insights into the affective side of network dynamics. Furthermore, while there is a lot of focus on the nature of interfirm relationships in triggering certain emotions (De Rond & Bouchikhi, 2004; Raza-Ullah et al., 2020), the way in which external events and developments impact emotions at the group level has received little attention. This is an important omission, because emotions such as frustration or disappointment may not only be triggered by properties of the interorganizational relationship, but also by the way the product or outcome of the interorganizational collaboration is received by external stakeholders. For example, Huy (2012, p. 241) establishes that "people experience emotion when they appraise events (real or imagined) as potentially impacting (positively or negatively) their important goals." Feedback from outside the network can signal the relative extent to which the collective endeavor is successful.

There is a growing interest in better understanding the crucial role of emotions in a variety of organizational, interorganizational, and institutional settings (Zietsma, Toubiana, Voronov, & Roberts, 2019). In this context, interorganizational relationships seem a particularly fruitful research setting. Fundamentally, emotions are social, meaning they form and develop their effect in groups and through 'managed' or more 'spontaneous' forms of interaction (Hallett, 2003), which can take place both in intraorganizational and interorganizational settings (Siebert, Wilson, & Hamilton, 2017). For example, being members of groups affords individuals with emotional energy as "a longer-lasting feeling that individuals take with them from the group, giving them confidence, enthusiasm, and initiative" (Collins, 2014, p. 300). Indeed, the experience of

emotional energy motivates individuals to continue and extend their engagement with a particular group and its cause (Fan & Zietsma, 2017). Along similar lines, Dorado (2013, p. 548) makes the observation that groups, including interpersonal and interorganizational networks, 'motivate, inspire, and enable.' However, there is also substantial evidence of possible negative self-conscious emotions, such as regret and guilt, that have an important social as opposed to solitary dimension (Maitlis et al., 2013). In any case, "as a site of significant inter-organizational [sic] interaction, often constituted in an unstructured or under-organized context" (Phillips, Lawrence, & Hardy, 2000, pp. 38-39), interorganizational collaboration is a fertile ground for group emotions to emerge, take shape, and develop effect (Huy, 2012). In interorganizational relationships, "different emotions tend to converge due to [the individuals'] similarity of experiences and on-going interactions" (Raza-Ullah et al., 2020, p. 5), meaning emotions can be amplified and reinforced in and through interactions via contagion (Barsade, 2002). The little we know about emotions in interorganizational relationships is more conceptual in nature (Raza-Ullah et al., 2020), raising the important question of the role of emotions in the empirical world. This is the focus of my study.

## 3. Methodological approach

### *3.1. Research design and context*

A qualitative research approach is appropriate to study emotions, not least in the context of interorganizational relationships (Ashkanasy, Cooper, & Kumar, 2008). Importantly, to trace emotions over time (Larsen, Augustine, & Prizmic, 2009), a longitudinal case study design is necessary.

I conducted a longitudinal single-case study of Training Consortium as a revelatory case (Yin, 2009). Training Consortium is an interorganizational network in the U.S. that was brought about by the governor of the state in order to address the skills gap by utilizing apprenticeship programs. In this sense, the government acted as a triggering entity (Neergaard & Ulhøi, 2006). Training Consortium was created in 2013 and its main members include participating firms, a small number of local technical or community colleges, and a state agency. Its goal is to offer apprenticeship programs collaboratively. As of 2018, a total number of 28 organizations were actively involved in Training Consortium. Together, these member organizations have recruited 55 apprentices in 2018 into one of the three apprenticeship programs offered by the network: mechatronics, technical product design, and computer numerical control. Mechatronics is an apprenticeship program combining elements of mechanical, electronical, and computer engineering; technical product design teaches skills and competencies in designing, planning, and constructing a variety of components and products; computer numerical control involves learning about the programming and operation of computer numerical control machines. The now discontinued information technology program focused on preparing for jobs in cloud and security services. Table 1 illustrates the development of the network over time in terms of its partners, programs, and apprentices.

**Table 1.** Overview of Training Consortium, 2013-2018.

| | | **2013** | **2014** | **2015** | **2016** | **2017** | **2018** |
|---|---|---|---|---|---|---|---|
| ***Partner organizations*** | Colleges | 2 | 3 | 4 | 4 | 6 | 6 |
| | Firms | 9 | 21 | 22 | 18 | 19 | 20 |
| | State agency | 1 | 1 | 1 | 1 | 1 | 1 |
| | Consulting firm | 1 | 1 | 1 | 1 | 0 | 0 |
| | Chamber of | 0 | 0 | 0 | 0 | 0 | 1 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| | commerce | | | | | | |
| ***Apprentices in the different programs*** | Mechatronics | 26 | 27 | 32 | 27 | 42 | 50 |
| | Technical product design | 0 | 12 | 3 | 0 | 0 | 2 |
| | Computer numerical control | 0 | 0 | 3 | 0 | 1 | 3 |
| | Information technology | 0 | 7 | 11 | 0 | 0 | 0 |

The theme of emotions was not initially the object of my study, but instead emerged from the data. I approached Training Consortium primarily for this study to understand its collective effort in introducing a training model—apprenticeship training—that is largely marginalized and even stigmatized in the U.S. context. Consequently, I asked questions aiming to unpack the challenges experienced by members of Training Consortium, as well as ways to overcome these challenges. During interviews, informants frequently invoked emotions when describing their involvement in Training Consortium's effort to offer apprenticeship. For example, they reported that it was 'fun,' stated that they 'loved' the network or were 'proud' of it, and they talked about the network as their 'baby.' As is not untypical in qualitative research more broadly, over the course of my fieldwork emotions as the key phenomenon "bec[a]me progressively crystallized as the investigation unfold[ed]" (Plakoyiannaki & Budhwar, 2021, p. 4). Consequently, I pivoted toward studying 'emotions in organizational processes,' a research approach which, according to Kouamé and Liu (2021, p. 98), seeks "to understand primarily interactions between individuals and their collective reactions and actions over longer time periods." Seeking to 'follow the story,' the interview protocol

was adapted to include the following questions: how does being associated with Training Consortium make you feel? Has this feeling changed over time? What feelings or emotions do you associate with Training Consortium? Were there moments when you felt particularly strongly about Training Consortium? These questions were included at an early stage of the research process, within the first year of data collection. During fieldwork, it became evident that both positive and negative emotions were associated with Training Consortium and what this network sought to achieve: offering apprenticeship training.

An apprenticeship is a particular kind of workforce training. While it is a common and normatively valued training pathway in other countries (Hall & Soskice, 2001), not least in many European countries, it is marginalized and even stigmatized in the U.S. setting (Fortwengel & Jackson, 2016). In the U.S., a four-year college degree is the socially preferred route for education, and skilled talent is usually generated through flexible on-the-job training. Correspondingly, one of the protagonists of Training Consortium observed that "apprenticeship or an associate degree, I mean, that doesn't have any value here." In this study, I focus on unpacking the emotions experienced by members of Training Consortium as they sought to bring to market an offer that 'does not have any value.' Trying to offer something that lacks inherent demand and even acceptance is likely to elicit particular kinds of emotions (Maitlis et al., 2013), and studying how events outside of a network affect the emotions of individual members and the group promises to complement existing research, which has tended to look at developments inside the network (Vlaar, Van den Bosch, & Volberda, 2007).

### *3.2. Data collection*

Capturing emotions and the energy "generated among a large group of people at multiple gatherings is the most challenging task" (Kouamé & Liu, 2021, pp. 102-103). To accomplish this task, I collected different kinds of data spanning a period of six years. I started my data collection in the year 2014, one year after Training Consortium had been launched and as soon as I became aware of the initiative. My observation period ends in 2018 (Pettigrew, 1990), at a point when I had collected sufficient data to develop strong theoretical contributions about the emotional underpinnings of interorganizational networks and their properties and outcomes.

Benefitting from substantial access to the network, I collected qualitative data through semi-structured interviews, archival information, stints of non-participant observation, and video segments. For one, I conducted 43 *interviews* with key individuals involved in Training Consortium (Saunders & Townsend, 2016), yielding more than 34 hours of interview data. Interviews were generally conducted face-to-face during fieldwork involving various firm, college, and government visits. In line with the longitudinal research design, interviews were spread over the years to trace the development over time. Concretely speaking, this means that I conducted interviews regularly over the years, and I had particularly intense periods of data collection in 2016 and 2018. Respondents were selected based on their involvement in the network, starting with the governor of the state, on whose initiative Training Consortium was created. I paid special attention to interviewing respondents from the different types of organizations centrally involved—that is, firms, colleges, and the state agency—as well as those playing key roles in helping to manage the network. This includes individuals on

the strategic steering committee, which is the top governing body, as well as program steering committees, which make more operational decisions pertaining to the individual apprenticeship programs, such as mechatronics. With the exception of six cases, interviews were tape recorded and transcribed verbatim for analysis. In the six cases where tape recording was not possible, I took detailed notes instead, including direct quotes. I transformed these notes into comprehensive memos for further analysis.

Interviews have been used in prior research on emotions (Tähtinen & Blois, 2011). One main advantage is that interviews "allow individuals to share their emotional experience with researchers" (Kouamé & Liu, 2021, p. 100). They also allow insights into group emotions because not all emotions evolve and are experienced in social interaction during co-presence (Menges & Kilduff, 2015). At the same time, interviews suffer from a set of limitations (Eisenhardt & Graebner, 2007; Golden, 1992). To minimize these biases, I followed the example of previous work on emotions (Gill & Burrow, 2018) and interviewed multiple respondents from different partner organizations of the network (Lumineau & Oliveira, 2018). To further compensate for the weaknesses of interview data and to engage in data triangulation, I have collected three additional kinds of data: archival data, video data, and observational data.

In total, I collected 827 pages of *archival data*. This includes network-internal documents shared with me, such as network agreements and bylaws, meeting minutes, presentations, and an internal report from the year 2014, which was based on 20 interviews at the time. Also, I collected some publicly available documents, such as public relations and marketing materials as well as newspaper clippings.

I also engaged in two stints of *non-participant observation*. These were placed in the middle and at the end of my observation period. For one, I participated in a two-day workshop in 2016 where members of Training Consortium discussed the current state and possible future of their initiative. Furthermore, I attended the Training Consortium graduation ceremony in 2018, where I took detailed field notes during the event and also obtained recordings of the formal speeches, which produced an additional 44 minutes of audio material. Discrete events can constitute critical units of observation for research on interorganizational relationships (see Ring & Van de Ven, 1994, p. 112). Both of these stints of non-participant observation offered interesting insights into how events provide opportunities for interaction and the development and experience of emotions in an interorganizational network.

Finally, I included five *video* segments, which were transcribed for further analysis. These videos were particularly useful to gather background information on the network, such as its mission and vision and its development over time. Table 2 offers an overview of the various data sources and how they were used in the analysis.

**Table 2.** Data sources and use in the analysis.

| **Data source** | **Amount** | **Use in the analysis** |
|---|---|---|
| ***Semi-structured interviews*** | 43 interviews:<br>- Interview respondents selected primarily based on their role in helping to manage the network | - Identifying (group-level) emotions<br>- Identifying network properties, processes, and outcomes<br>- Linking (group-level) emotions over time with network properties and outcomes over time |
| ***Archival data*** | 827 pages:<br>- Internal report (2014)<br>- Network bylaws and agreements, meeting minutes, | - Tracing the development of the network and critical events along the way |

| | | |
|---|---|---|
| | presentation slide decks, public relations and marketing materials, government communications, and selected newspaper clippings covering the observation period (2013-2018) | - Cross-checking interview data for heightened validity |
| ***Observational data*** | 2 events (3 days in total, including one recording of 44 minutes):<br>- Network workshop (2016)<br>- Graduation ceremony (2018) | - Understanding how relational energy emerges in social interaction as the network comes together as a group<br>- Identifying how the network facilitates the re-setting and turning around of emotions |
| ***Video data*** | - Introduction and campaign video (2013, 8 minutes)<br>- Panel discussion (2014, 63 minutes)<br>- Workforce conference (2014, 80 minutes)<br>- Governor summit (2016, 3 minutes)<br>- College information session (2021 [to get a sense of the developments after the observation period], 50 minutes) | - Identifying the mission of Training Consortium<br>- Collecting background information on the network and its programs over time |

### *3.3. Data analysis*

I coded my qualitative data from different sources and spanning six years in four main steps. *First*, I analyzed my data by focusing on "[e]motions expressed through talk, text, and symbols" (Kouamé & Liu, 2021, p. 103). This yielded a set of self-reported discrete emotions that members experienced as part of their involvement in the network, such as 'excitement,' 'frustration,' and 'passion' (Kroon & Reif, 2021). I then categorized these discrete emotions as positive or negative, in line with the approach in existing literature

that categorizes discrete emotions experienced at the individual level as positive or negative at the group level (Menges & Kilduff, 2015). I thus only coded emotions in terms of their valence and not their intensity. *Second*, I coded my data to reveal possible dynamics in the properties and outcomes of the network (Provan et al., 2007). Properties describe how the network was initiated, including the selection of members and agreement on the network's mission and objectives, and the nature of the evolving interorganizational relationship; network outcomes describe the effects of the execution of the network, such as firms recruiting talent and individual apprentices embarking on a career trajectory. Network outcomes thus help measure the extent to which the network is able to 'achieve the common goal' (Provan et al., 2007). In a *third* step, I ordered the various codes and themes as they emerged from my data chronologically. Thus, I was following a 'methodological bricolage' approach (Pratt, Sonenshein, & Feldman, 2022), combining a coding approach following an aggregation logic with a longitudinal process approach as two complementary analytical moves to generate insights from my qualitative data. As part of a *fourth* and final step in my data analysis, I developed a conceptual process model. At the heart of this process model are recursive cycles between emotions and the generation, depletion, and turning around of relational energy on the one hand, and network properties and outcomes on the other hand. The conceptual process model in the Discussion section is a tangible outcome of this analytical step, which brings together the emotions as identified in step 1, the network properties and outcomes as identified in step 2, and their chronological evolvement as identified in step 3. In the following Findings section, I offer a narrative account of the affective journey of Training Consortium, built around quotes and other data excerpts.

## 4. Findings: The affective journey of Training Consortium

### *4.1. Phase 1 (2013-2015): The generation of relational energy*

The governor of the state had the idea to explore the creation of an apprenticeship program to help his state recover from the recent financial crisis. For this purpose, he traveled to Germany, became familiar with apprenticeship-based workforce training common there, and sought to introduce this innovation back at home in his state:

> "It's an adoption question. Whenever you bring something new, you always have the issue of who are the early adopters, the fast followers, most people are in the middle, and then you are going to have laggards. And I viewed this as, this was a good chance to establish the state and a particular number of institutions and companies as early adopters of this. They believed in it, they were just looking for a home to bring them together."

In a first step, the task was to build this 'home' for the 'early adopters.' This involved identifying partners interested in forming a collaborative endeavor, comprising companies that would hire apprentices and provide practical training; technical and community colleges that would cover the theoretical instruction; and entities that would help run the network. As the 'home to bring them together' was envisaged and built, members of the newly formed network were very excited about the prospect of collaborating:

> "The really cool thing is that it is a collaboration and that it does force, even on the higher education side, it forces public and private institutions to work together now."

'Working together' was a novel, 'cool,' and 'exciting' experience, because previously colleges had more of a competitive relationship with each other:

> "Training Consortium is the first time we truly came together and shared intellectual properties. In the past, it was more of a competitive nature, so that was really, really exciting."

In addition to the shift from competition to 'coopetition' (Raza-Ullah, Bengtsson, & Kock, 2014), another aspect of Training Consortium considered 'exciting' was its underlying purpose and motivation, centered on developing a state-of-the-art training and education program:

> "That's exciting, because I think the health and future of our state depends on these companies being successful."

Overall, founding members felt 'euphoria' about being involved in Training Consortium:

> "There was lots of euphoria in the beginning—new program, and we are all participating!"

This 'euphoria' was directly linked to the interorganizational collaboration, which brought about such positive emotions. More specifically, these positive emotions in participants occurred during the network creation stage, involving participants negotiating and committing to their collaborative endeavor (Ring & Van de Ven, 1994). For example, network members had to agree to focus on mechatronics as an occupational profile to begin with, negotiate and commit to a minimum wage level for the apprentices, common across the participating employers, and coordinate a timetable between employers and colleges. These discussions took place in the emerging network, in the form of various social interactions via the phone and in person, as opposed to each individual company trying to ensure a skills supply on its own:

> "The whole group decided they wanted to move together whereas prior to that each individual company was trying to go for themselves."

In an internal report, commissioned in 2014 to monitor the initial developments and based on 20 interviews with founding figures, the members of Training

Consortium—constituting the 'whole group moving together'—were described as 'extremely passionate' about the program and its success:

> "Participants from many diverse perspectives all agree that the mission of this program is absolutely critical, and they are extremely passionate about guiding the program's direction and ensuring its success."

Indeed, not least because of the amplified positive emotions, and once the main rules of the collaborative endeavor were negotiated, members committed to it by putting substantial resources behind it:

> "You have got commitments now from education, from the companies, and from the state that are all pointing together toward one end, which is a great thing."

As is not uncommon in processes of network creation (Ring & Van de Ven, 1994), some members of Training Consortium had a prior relationship, and thus were able to build on existing interpersonal trust and understanding. This helped facilitate the negotiation and commitment stages:

> "It was a smooth process, so I was pleasantly surprised at how well it went. And it was nice too because they had personal relationships already, so the people from the colleges had worked with the industry partners, so it wasn't bringing strangers into a room to try to develop this program. So, it was good to see that they had a previous relationship."

At the same time, the first stage of network creation still required a lot of work and 'energy':

> "I think there is a lot of energy put into this program, by both the state and some employers and the colleges."

Indeed, because it was an 'early adopter program,' it required significant 'passion and enthusiasm,' particularly because at this stage it was not yet known if, and to what extent, Training Consortium would be successful:

> "This is an early adopter program, and for that you need a lot of passion and enthusiasm. You invest so much time up front, and you don't yet see for what, really."

For example, one area that required a lot of 'passion' was recruitment:

> "To recruit the first cohort, we put a lot of passion in the recruitment process."

During phase 1, as the group formed and came together, relational energy was generated, which was put to work in creating and marketing an 'early adopter program.'

### *4.2. Phase 2 (2015-2016): The depletion of relational energy*

Soon after the founding of Training Consortium, members of the network realized how hard it was to implement apprenticeship training in the U.S. setting:

> "It is not like technology. Technology you can bring in, and it is pretty easy to bring it in and make it stick and make it successful. But institutional innovation is much, much different: institutions have roots, so it is much more difficult, much, much more involved, to bring in and to have innovation at the institutional level."

Indeed, members of the network were aware of the 'stigma' associated with apprenticeship training, making 'institutional innovation,' much unlike 'technological innovation,' very difficult in this space:

> "The whole idea of apprenticeship has a challenging kind of stigma to it, in terms of how people perceive it, versus going just for a traditional bachelor's degree."

Once members of Training Consortium started to recruit for open apprentice positions, they were confronted with and experienced this stigma first-hand. As a result of trying to make sense of the unenthusiastic feedback on their offering (Maitlis et al., 2013), they realized that they were 'fighting an uphill battle':

> "It's quite frankly an uphill battle, because we are overcoming stigmas of not only parents but the students themselves, counselors, and sometimes the system itself where a lot of our K-12 schools are measured in terms of academics and becoming college ready, versus career ready."

The positive emotions of the network creation stage were slowly undermined, and increasingly members of Training Consortium experienced significant frustration, because their offer was met with opposition:

> "Without a doubt, everybody is frustrated. We are dealing with a cultural thing again. I can't believe it, I can't get students! Where are they? Why wouldn't they do this? This is an amazing program, it's totally paid for. They are going to make money instead of spending money to go to college!"

As such, the reserved response from the environment caused a switch away from positive emotions and toward negative emotions (Maitlis et al., 2013). The very limited uptake of Training Consortium's offer was not only frustrating for those individuals who had high hopes and enthusiasm for the newly created program, it also put its longevity at risk. As mentioned earlier, Training Consortium is an initiative that was created with the support of the governor, and the state had agreed to support the network with up to $2 million per year. These resources were used to help cover the costs of designing a curriculum and marketing the program. However, the very limited uptake raised questions as to whether this was a good use of taxpayers' money. As a result, members of Training Consortium grew increasingly concerned and fearful about the future and sustainability of the program:

> "A concern that a lot of companies have right now is also what's going to happen when the current governor steps down and we get the next governor in. Is he going to be so gung ho about this type of program or is it going to be kiboshed or what."

One major source of frustration was that newly added apprenticeship programs in fields other than mechatronics were basically failing, with very little interest from prospective apprentices. As a result, and as shown in Table 1, these programs were largely discontinued during phase 2, and Training Consortium focused its efforts on the mechatronics program.

The lack of growth, and in fact the shrinkage of the program, was 'disappointing,' not least for those who had the vision that Training Consortium would help re-build the skilled workforce in the wider state:

> "It is disappointing that it is not growing. My interest from the beginning was the need for talent."

During this phase, the disappointing network outcomes had repercussions within the network too. Internal tensions emerged as some people brought 'negativity' into the group:

> "We need a good attitude, and not people who bring negativity, like 'this doesn't work' and 'that doesn't work.' Whereas we wanted to focus on what can work, or how we can make it work!"

Overall, during phase 2, members of Training Consortium felt that they were 'fighting on many fronts':

> "Everybody tells students, 'you have to do a bachelor's to survive on the market.' We are fighting on so many fronts!"

### *4.3. Phase 3 (2016-2018): The turning around of relational energy*

Importantly, members of Training Consortium were not alone in 'fighting on so many fronts.' Being embedded in an interorganizational network equipped members of the group with ample opportunity for social interaction, which helped them to break the cycle of negative relational energy. Here, events played a critical role. Specifically, a workshop

event in 2016 brought members of Training Consortium together to discuss the current state and possible future of their endeavor. During this event, positive emotions were re-kindled. For example, concerns about a possible retreat of the state soon gave way to the view that individual members of the network could step in and take on leadership roles:

> "I mean Anna [an alias; the new lead representative of Training Consortium] does an amazing job, I love her involvement with it, so if the government did part ways, I am sure she would really be able to run with it in an awesome direction."

Social interaction at the group level also enabled a shift in perspective. For example, some group members made the case that 'landing nearby when shooting for the stars' was okay:

> "You know, I am a pretty bold visionary. I like to shoot for the stars. And if I land somewhere nearby that I'm happy with it. So, I think, aiming for 100 or so employers, you know, maybe upwards of 500 to 1000 students, was probably too bold for a pilot phase of the program."

As such, some individual members of Training Consortium sought to shape the group-level sensemaking process by presenting the network outcomes as less disappointing than originally thought. More broadly, the social interaction facilitated by the network, going beyond the workshop event and comprising more routine ways of interacting as well, such as during interview days, was critical in providing members of the group with experiences to feel 'excited' and 'keep going':

> "The best part for me is when I can go and actually interact with people who are participating in the program. So, we had a couple of employer interview days just recently and I got an opportunity to talk with the students, talk with the parents, interact with the companies, and based on that I am very excited that they have this opportunity. When you talk to parents, their children, the students are able to work and go to school, come out with a degree, post-secondary degree, with no college debt. And a good job. That's all I need to keep me going."

Being brought together in and through the network, members of Training Consortium were able to feed off each other's 'passion and belief,' which had an uplifting effect:

> "This program is based on passion and belief that it is the right thing to do. And of course, it's important to have the right people involved, who are ready to take on more than their job descriptions entail."

'The right people' were those considered to 'put their heart and soul' into Training Consortium and its mission to offer apprenticeship programs:

> "I put my heart and soul in it, as did Thomas [another alias] in the past, as is Anna now, and a number of other people."

These kinds of positive emotions were created during the course of social interactions as part of the network, and in the process they experienced amplification and reinforcement, leading to relational energy. For example, the network engages in a yearly graduation ceremony, which, as a ritual, brings about various kinds of social interaction (Collins, 2004). The ceremony constitutes a powerful symbol of the effect the network has, as it celebrates the achievements of the graduating apprentices. Members of Training Consortium feel 'excited' about attending the ceremony:

> "It is a big deal, I am excited every time I get to go to the ceremony!"

In particular, attending and participating in the ceremony helps group members witness the positive and life-changing effect of their work as part of the network:

> "It's always, no matter what you are always doing work in, but for us we get to see the result at the graduation, at the state recognition ceremonies. We get to hear from the employers, we get to see the students, how beneficial it has been."

Even outside of the festive ceremony, Training Consortium offers various spaces in which members can come together and feed off each other's energy:

> "I invite employers in and they are so excited and talk about the program in such glowing terms, and what it's done for them and what it's done for their workforce, and how dependent their employees are on the Training Consortium students, because they are so knowledgeable. And so I always leave those [events] like a happy little girl by what you hear there."

These instances of social interaction are meaningful, because group members come out of them feeling, for example, 'like a happy little girl.' Furthermore, members of the network constantly remind each other of the common purpose they share. For example, the Training Consortium was linked to a "global movement to address and reduce the skills gap." Individual members of Training Consortium took this notion of bigger purpose to heart:

> "So, for me personally, making sure people have the jobs that they need and making sure our state is economically strong is really important."

This belief in a purpose-driven mission further reinforced the cycle between positive relational energy and network outcomes. As a result, a feeling of 'pride' was felt not only at the network level but also at the level of individual companies:

> "Training Consortium is something that is being marketed externally, but also internally, within the company. There is so much pride!"

Correspondingly, during the graduation ceremony of 2018, a top-level state representative used his speech to encourage members of Training Consortium to engage in this kind of marketing, and to 'tell their story':

> "Tell your story! One of the things we are not particularly good at here in the state is we tend to be a little bit more humble about us, here in the Midwest, so we are not particularly good at telling our story. People need to hear the story of this program and how the successes are! And that goes for everyone in this room."

Indeed, looking back, one of my respondents notes how he 'enjoyed the experience,' not least because of the positive effects on 'businesses and individuals':

> "Yeah, I really enjoyed the experience. It gave me a first-hand look into the public-private partnership and collaboration that when it does work, it works well for both businesses and individuals here in the state."

In sum, during phase 3, members of Training Consortium had broken the cycle of negative relational energy, instead re-kindling positive emotions by revisiting network properties. This created a new set of relational energy recursively related to the network outcomes in terms of the sought positive changes for employers, individual apprentices, and the whole state. As a result, members of the network were re-energized to work toward gaining support for their offering: apprenticeship training in the rather unwelcoming environment of the U.S.

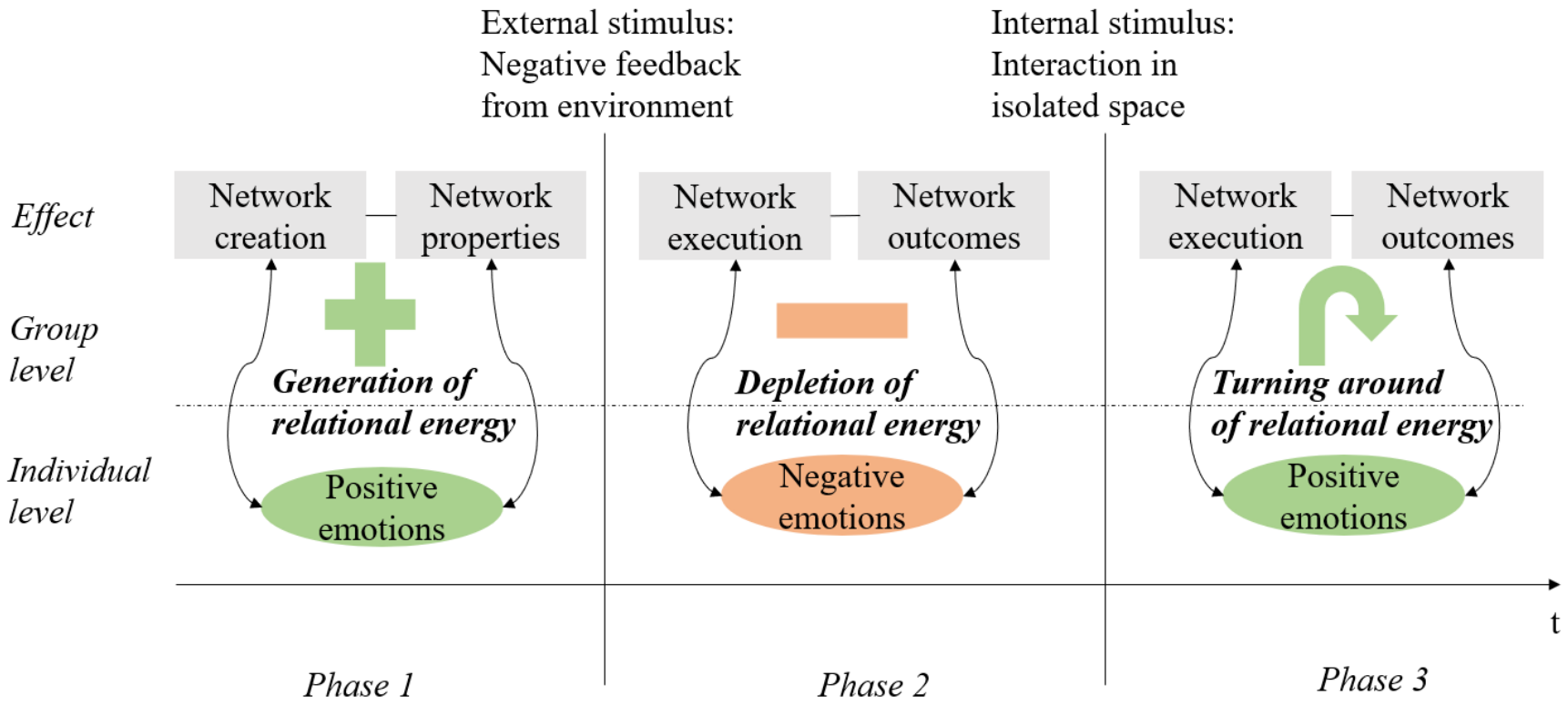
## 5. Discussion

Studying the case of Training Consortium longitudinally, this paper reveals the 'affective journey' of an interorganizational network. Specifically, it traces the emergence of positive and negative emotions at the level of individual network members, which, over the course of interactions, translate into the generation, depletion, and turning around of relational energy at the group level. Crucially, my study positions the interorganizational network as bringing about a 'higher-level structural effect' (Casciaro, 2014) by facilitating this link between individual emotions on the one hand, and group-level relational energy on the other hand, with important implications for the ability of the group to work toward its shared goal.

Figure 1 illustrates the conceptual process model developed on the basis of my study of Training Consortium. It maps the cyclical evolvement of Training Consortium (Ring & Van de Ven, 1994), with emotions and relational energy at the heart of the

model, recursively related to network properties and outcomes across the various stages. As such, the model maps the affective journey experienced by Training Consortium as a group, and how this affective journey is related to important effects of network creation and execution, continuously made sense of by individuals and the network as a collective (Maitlis et al., 2013). The transition from phase 2 to phase 3 is a critical juncture in this journey, which involves a re-kindling of positive emotions—crucially, enabled by the social interaction facilitated through the interorganizational network, not least in the form of a two-day workshop event. Overall, the model responds to the call by Raza-Ullah et al. (2020, p. 10), who argue that "[e]xamination of how events over time shape discrete emotions […] and how performance outcomes in turn shape future emotions would provide intriguing insights." This study delivers some of these 'intriguing insights' by mapping a recursive relationship between positive and negative emotions on the one hand, yielding the generation, depletion, and turning around of relational energy, and network properties and outcomes on the other hand.

**Figure 1.** A conceptual process model of the affective journey of an interorganizational network.



My study extends prior theorizing on the relationship between individual and group emotions. In this context, Menges and Kilduff (2015) speak of 'blending in' and 'separating out': "When individuals blend in, the group emotion becomes activated. And when individuals separate out, the group emotion becomes latent" (Menges & Kilduff, 2015, p. 882). To help further theorize these processes of 'blending in' and 'separating out,' I draw on the literature on space.

Weinfurtner and Seidl (2019) reviewed the literature on space in organization and management studies and found that one dominant theme is how the isolation of a space "offers actors a protected setting in which to interact and engage and thus makes possible and influences certain activities or outcomes" (Weinfurtner & Seidl, 2019, p. 14). I theorize that an interorganizational network functions as such an isolated space, enabling activities that contribute to the successful achievement of a common goal. As such, the 'home' that one of my respondents referred to when describing Training Consortium is not a physical place, but rather a collective space where emotions unfold and develop their effect.

In a related stream of research, previous work emphasizes the need for belonging (Jasper, 2011) and how different social spaces meet this need, for example groups or councils (Fan & Zietsma, 2017). This mirrors the observation that in similar settings "[m]oving from individual to collective understandings amplified the participants' feeling of being part of something bigger, of acting for the common good" (Cartel, Boxenbaum, & Aggeri, 2019, p. 76). Building on this prior work, my study shows how interorganizational networks offer a particular kind of space, featuring interpersonal networks (Granovetter, 1985) embedded in a more structured and rather loosely managed

interorganizational arrangement (Brass, Galaskiewicz, Greve, & Tsai, 2004). As interorganizational networks offer spaces of sufficient closure (Coleman, 1988), management (Hallett, 2003), and goal-directedness (Provan et al., 2007), they are particularly effective at producing an 'energetic' environment (Collins, 2004; Zietsma & Toubiana, 2018), which can produce both positive and negative intensifications of shared moods. By offering a particular kind of affective space (Reckwitz, 2012), which individuals step into on a temporal yet repeat basis, involving both more spontaneous as well as more managed interaction patterns (Hallett, 2003), the network is a critical site for the generation, depletion, and turning around of relational energy. It is precisely the semi-structured nature of interorganizational networks that set them apart from (intra-)organizational or social networks, and which constitutes a fertile ground for emotions and relational energy. It is long recognized that 'emotion cycles' emerge in groups (Hareli & Rafaeli, 2008), and that social interactions have a 'repetitive or cyclical nature' (see Hareli & Rafaeli, 2008, p. 37). In the case of interorganizational networks, these repetitions or cycles are semi-organized, which produces more interrupted emotion cycles.

Overall, my study positions interorganizational networks as a particular kind of space (Huggins, Johnston, & Thompson, 2012; Rodríguez, Langley, Béland, & Denis, 2007), or 'bounded social setting' (Bucher & Langley, 2016), conducive to the emergence, amplified co-creation, and productive effect of emotions in individuals (Raza-Ullah et al., 2020), which in turn shapes the relational energy. Exploring the role of the interorganizational network for the shape and implication of emotional processes contributes to the emerging research stream on the role of different kinds of spaces for

emotions in various organizational and institutional settings (Siebert et al., 2017). This contributes to a shift of attention of emotion scholars away from the content of positive or negative emotions, and toward theorizing the importance of the location or space where these emotions play out for individual, (inter-)organizational, and institutional outcomes (Raza-Ullah et al., 2020). For scholars interested in interorganizational relationships, a focus on emotions is productive, because it adds to a richer and more nuanced picture of the underlying mechanisms that can help to explain key network processes (Doz, 1996; Majchrzak, Jarvenpaa, & Bagherzadeh, 2015).

Overall, my study makes two main contributions to the existing literature, which are summarized as follows.

### *5.1. Contribution to research on group emotions*

While there is a rich tradition of research on group emotions, virtually all research in this domain is focused on small groups, such as teams. My study helps to start addressing the lacuna in research at higher levels of analysis (see Table 1 in Menges and Kilduff (2015), which shows that no empirical study has been conducted at the large group level). By studying the case of Training Consortium as an interorganizational network, my study is one of the first to empirically examine group emotions at the interorganizational level of analysis. Crucially, I theorize that networks offer a particular kind of context that shapes the emergence of group emotions.

The role of context is still underappreciated and undertheorized in research on emotions. Correspondingly, Brundin et al. (Brundin, Liu, & Cyron, 2022, p. 13) conclude that, “based on our review, we note that the contextualization of emotion is limited,” and

"the implications of organizational boundary structures on emotion are in their infancy." This omission is surprising, because, as recently argued by Vuori (2023), there are reasons to believe that the socially constructed context for interaction is important for emotions. Indeed, my study suggests that there is significant value in paying closer attention to context, including the role of interorganizational context. Here, my study offers texture regarding the network context for emotions. While there is substantial evidence that group assembly, or the physical or virtual co-presence, facilitates the generation of emotional energy (Vuori, 2023), in interorganizational networks this group assembly occurs in a particular rhythm or patterned way, for example over the course of regular network meetings. In particular, the network structure offers a context in which 'blending in' and 'separating out' is institutionalized, because individual members continue to be primarily embedded in their home organizations and their network identity and role is activated only at certain moments in time. Drawing on the concept of space, I develop the theorized argument that it matters that a network enables the 'blending' or stepping in as well as the 'separating' or stepping out, because this way group-level emotions can cool off during a 'separating out' phase, and they can be turned around during a subsequent 'blending in' phase. This is exactly what my case study of Training Consortium suggests: the depletion of relational energy was turned around as, after some time, network members came together again to discuss the initiative during a workshop where the network explored recalibration and engaged in collective sensemaking. Casciaro (see 2014, p. 234) argues that higher-level structural effects and their role for emotions is still 'largely unexplored territory.' My study is one first attempt to chart this

new territory by empirically examining and theorizing the role of an interorganizational network as a particular kind of space that exerts specific 'higher-level structural effects.'

My study also identifies social interaction, not least at network events, as a way to 're-kindle' positive emotions. In the case of Training Consortium, a workshop event was critical for enabling individual members to re-group and re-assure each other. As a result, negative emotions, such as concerns about the future and a possible retreat of the state and its investment in the endeavor, triggered by limited enthusiasm in the environment, gave way to positive emotions, which took on an increasingly collective and social form (Maitlis et al., 2013). Overall, this facilitated the turning around of relational energy. As such, my study complements the work of Fan and Zietsma (see 2017, p. 2344), who raised the question of how negative cycles could be turned into positive ones again, and how projects could be revived, by suggesting that these dynamics can be facilitated by the network form.

While prior research has tended to study how emotions influence a certain outcome of interest, such as innovation and renewal in an incumbent organization (Vuori & Huy, 2016) or emergent strategy in a social movement (Kudesia, 2021), my study suggests that emotions and outcomes are tightly interlinked and recursively related. Specifically, the outcome and effectiveness of the network in achieving its common goal (Provan & Milward, 1995) over time can constitute important external stimuli, which can be responded to by network members in ways that re-generate relational energy and seek to improve the network outcome and effectiveness.

### *5.2. Contribution to network research*

It is long understood that coordination is an 'emotional experience' (Quinn & Dutton, 2005). Perhaps surprisingly, the link between emotions and coordination processes and outcomes is still somewhat underdeveloped, particularly in the context of network research. While it is well established that interorganizational relationships face a set of tensions, which can undermine network effectiveness and a network's ability to reach a shared goal, the explanatory power of emotions is still underappreciated. Tackling this blind spot, my study illuminates how group-level emotions can be a powerful trigger of tensions. For example, in the case of Training Consortium, the disappointing uptake of the offering in the environment caused tensions within the network. More broadly, my study positions emotions as a crucial yet so far underappreciated factor in influencing the fate of an interorganizational collaboration. This complements dominant factors studied in prior research, such as trust (Neergaard & Ulhøi, 2006). Further, my study helps to shift the attention of research on emotions in interorganizational collaboration, away from internal stimuli (De Rond & Bouchikhi, 2004; Raza-Ullah et al., 2020) and toward external stimuli, particularly the ability of the network to achieve a common goal.

Overall, my study draws attention to the role of emotions as a critical yet so far largely ignored mechanism behind network processes (Lahiri, Kundu, & Munjal, 2021; Raza-Ullah et al., 2020). There is growing evidence of emotional contagion, positive and negative, within groups, including in various organizational settings (Barsade, 2002; Zagenczyk, Powell, & Scott, 2020). By participating in activities 'taking place' in and through the network, individuals contribute to collective effervescence, the 'intensification of a shared mood' (see Collins, 2014, p. 299), and the creation of

relational energy (Baker, 2019). In interorganizational networks, relational energy forms through various kinds of managed and more spontaneous interactions (Hallett, 2003), whereby emotions emerge, take shape, and develop their effect. While previous work has speculated that "emotions […] play a larger role in the initiation and long-term success of collaborative arrangements" (Fan & Zietsma, 2017, p. 2346), the exact processes and possible effects of emotions within networks as collaborative arrangements were still poorly understood. By offering a space where frequent interactions among often like-minded individuals take place (Gray, Purdy, & Ansari, 2015), networks provide a 'managed conduit for emotional feedback and amplification' (see Hallett, 2003, p. 705). This 'emotional feedback and amplification' is important, because it can lie behind critical developments in the network, and hence adds to our understanding of the micro-level mechanisms that help explain various network processes (Arnaud & Mills, 2012; Lahiri et al., 2021), including the ability to achieve sought network outcomes. For example, network events can constitute important instances of a symbolic renewal of the common goals, in a way putting down more roots to strengthen the shared 'home' referred to earlier. As such, they can provide important emotional supplies to move forward with the collective endeavor. Overall, my study suggests that network research can be advanced meaningfully through a stronger focus on emotions, and how emotions may lie behind critical dynamics in interorganizational relationships involving changes in properties, processes, and outcomes.

### *5.3. Managerial implications*

From a managerial standpoint, the finding that members of interorganizational networks experience cycles of positive and negative emotions, recursively related to network properties and outcomes, and which in turn aggregate to the generation, depletion, and turning around of relational energy over the course of interactions, suggests that managers of and in networks should firstly pay attention to the emotions of those individuals involved at the operative level of the network. Such a micro-level perspective would complement the dominant attention being paid by managers to the formal and informal governance of the network (Vlaar et al., 2007). In addition to the monitoring of experiences, top-level managers should actively create spaces where positive emotions can re-emerge and develop force, via emotional contagion (Raza-Ullah et al., 2020). My study suggests that this can be an effective way to break a cycle of negative emotions, particularly those triggered by developments and events occurring outside the network (Maitlis et al., 2013), and put the collaborative endeavor back on track toward achieving its 'common goal' (Provan et al., 2007).

Another possible managerial implication is that managing the turnaround of a difficult situation can potentially improve the emotional capital of a network. Emotional capital "consists of the accumulated positive, shared emotional experiences of group members that serve as a resource for a group's development and success" (Menges & Kilduff, 2015, p. 891). As such, the successful turning around of relational energy could potentially make the network more robust and resilient. However, this assumption would need to be tested empirically in future research, which leads me to a discussion of limitations and possible research avenues.

### *5.4. Limitations and outlook*

As with all empirical work, this study has a set of limitations, which open up avenues for future research. In particular, this paper is based on a single-case study, which raises the question of the transferability of the insights as well as possible boundary conditions. For example, it is conceivable that the role of emotions is accentuated in the case of Training Consortium, because their 'institutional innovation' of apprenticeship, to use the phrase of one of my respondents, is so challenging in the U.S. setting, where apprenticeship programs face a 'stigma' as a critical hurdle (Fortwengel & Jackson, 2016). However, emotions may also originate from tensions internal to the interorganizational relationship (De Rond & Bouchikhi, 2004), largely irrespective of difficulties in achieving the objective of the collaboration. For this reason, I suspect that the theoretical insights developed on the basis of studying Training Consortium may hold more general theoretical purchase, yet this will need to be confirmed, rejected, or qualified in future research. For example, emotions may play a slightly different role depending on whether the trigger of emotions is related to sought or achieved network outcomes, such as the attempt to introduce an innovative training model, or network properties, such as the internal governance and coordination of activities, including possible tensions internal to the network (De Rond & Bouchikhi, 2004). This relates to the remaining gaps in our understanding of the relationship between how individuals make sense of certain events, either in terms of network properties or network outcomes, and emotions (Maitlis et al., 2013). Along similar lines, prior research suggests that group emotions can vary across individuals depending on their identification with group membership (Menges & Kilduff, 2015). The individual respondents in this study were purposely selected to represent main

players in the network, which probably suggests that they would score highly in terms of their identification, which could constitute one boundary condition of the findings emerging from this study. Future research could also focus more on the role of the government agency in the Training Consortium case. It is well-documented that government intervention can influence networks in material ways (Neergaard & Ulhøi, 2006), and it would be interesting to explore how this plays out in the case of Training Consortium or other networks formed for the purpose of offering apprenticeship training in the U.S. and other countries.

Furthermore, future work could explore to what extent there is a more general sequence of cycles of emotions. In the case of Training Consortium, this involved a development from positive to negative to positive, with corresponding generation, depletion, and turning around of relational energy. This might not necessarily be the case for all settings. One task for future research would be to explore the conditions under which a particular sequence is likely to develop.

An important limitation pertains to interviews as a major data source. Even though very difficult to collect (Tähtinen & Blois, 2011), real-time observational data over an extended period of time, ideally involving multiple years, could offer additional insights. Here, microethnography of key events could be particularly illuminating (Liu & Maitlis, 2014).

Another key avenue for future research is comparative work, which could compare and contrast the unfolding of emotions in interorganizational networks with other more or less loosely coupled initiatives, such as social movements (Goodwin, Jasper, & Polletta, 2000) or crowds (Kudesia, 2021). This could yield interesting insights

into how much coupling and social closure is necessary for the emergence of more lasting emotional energy across different kinds of spaces, and if the generation, depletion, and turning around of relational energy may differ across a variety of settings exhibiting different degrees of closedness. Overall, this paper highlights an exciting research frontier to better understand the role of emotions, and their development over time, as a critical micro-level mechanism explaining a variety of properties and outcomes of organizational, interorganizational, and wider institutional processes. For scholars interested in interorganizational collaboration, a lens focusing on emotions and relational energy holds considerable promise to further our understanding of the underlying mechanisms of networks and their practical accomplishment.

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