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Entrepreneurial Teams as the Drivers of their Ventures: Structure, Relationships, and Behaviors in Entrepreneurial Teams

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List of Abbreviations

AIC	Akaike Information Criterion
a.m.e.	Average marginal effects
BA	Business angel
CEO	Chief executive officer
Cov.	Covariance
Dr.	Doctor
e.g.	Exempli gratia (for example)
et al.	Et alii (and others)
HLM	Hierarchical linear modeling
i.e.	Id est (that is)
ICC	Intraclass correlation
M	Mean
Nr.	Number
Prof.	Professor
SD	Standard deviation
SE	Standard error
SEM	Structural equation modeling
TUM	Technical University of Munich
ERI	Entrepreneurship Research Institute
Var.	Variance
VC	Venture capital
VIF	Variance inflation factor

ABSTRACT

Entrepreneurial teams engage in a social process with the aim of turning their business idea into a successful venture. In this process, the entrepreneurial teams shape the evolving ventures with their team dynamics and often leave a long-lasting imprint on them. Hence, entrepreneurial teams are at the heart of their ventures, as they drive their ventures' development. With this dissertation, I set out to study entrepreneurial teams in the context of early-stage ventures. Using both qualitative and quantitative research methods, I explore the structure, relationships, and behaviors in entrepreneurial teams and how these may affect the development of the venture. At the most general level, I aim to contribute to a multi-level understanding of how people collaborate to develop new ventures by investigating how entrepreneurial teams work together to advance their venture idea, how they organize to foster a team spirit, and how they can deal with their perceived environmental threats and challenges.

1 INTRODUCTION

1.1 Entrepreneurial teams as the drivers of their ventures

New ventures are an important socioeconomic driver of today's world, but the process of developing such ventures is challenging, as it is shrouded in novelty (Shepherd et al., 2000) and uncertainty (McKelvie et al., 2011). Because of these challenges, only a minority of the newly founded ventures evolves into successful organizations (Shepherd et al., 2000). According to past research, one aspect that substantially shapes the development of ventures and whether they can overcome their challenges are the founders (Blatt, 2009). Rather than pursuing a venture as a solo-operating founder, many ventures are founded by entrepreneurial teams (Ruef, 2010; Wasserman, 2012), that is "two or more cofounders who pursue a new venture idea, are involved in its subsequent management, and share ownership" (adpated from Lazar et al., 2020, p. 29). Together as a team, the cofounders can leverage their individual strengths (Jin et al., 2017) and collectively develop the venture in a social process (Dimov, 2007). In this process, prior studies show that the entrepreneurial teams' dynamics play a key role in overcoming the early entrepreneurial challenges (Blatt, 2009), in creating more innovative solutions (Perry-Smith & Coff, 2011; Rouse, 2020), and for overall venture performance (Ensley et al., 2002; Ensley & Hmieleski, 2005). Hence, entrepreneurial teams are at the heart of their ventures and drive the ventures' development.

Research on entrepreneurial teams is situated in the vibrant scholarly field of entrepreneurship, which studies "how, by whom, and with what effects opportunities to create future goods and services are discovered, evaluated, and exploited" (Shane & Venkataraman, 2000, p. 218). Hence, besides aiming to understand founders and entrepreneurial teams, the scholarly field of entrepreneurship comprises research on the venture idea, research on modes of organizing, as well as research on the overall context of the industry environments that ventures are located in (Busenitz et al., 2003). By studying these concepts alone or at their intersections, entrepreneurship scholars seek to better explain the unique phenomenon of the emergence and running of ventures (Shepherd et al., 2019)—a particularly important socioeconomic phenomenon that fosters the introduction of innovations (Duran et al., 2016), facilitates socioeconomic mobility (Quadrini, 2000), and possibly even creates social value (Hall et al., 2010).

Likely because of the importance and distinct context of entrepreneurial teams in the emergence and running of ventures, research on entrepreneurial teams is growing substantially (see Bolzani et al., 2019; Klotz et al., 2014; Knight et al., 2020; Lazar et al., 2020; Patzelt et al., 2021 for comprehensive reviews). What makes these teams special and thus so worth studying is their lack of initial formalized structures, roles, and responsibilities (Sine et al., 2006). As opposed to top management teams in more mature organizations that are—like entrepreneurial teams—responsible for strategic decision making and the operations of their organizations (Klotz et al., 2014), the lack of structure enables entrepreneurial teams to create and shape their own processes, policies, and incentives (e.g., Kagan et al., 2020; Talaulicar et al., 2005). In doing so, their actions and behaviors have long-lasting imprinting effects (Burton & Beckman, 2007), which subsequently impact how the venture develops and grows over time (Beckman & Burton, 2008). Additionally, entrepreneurial teams have greater managerial discretion than top management teams (Finkelstein & Hambrick, 1990; Klotz et

al., 2014), and their decisions are thought to have more direct effects on venture-level outcomes (Hmieleski & Ensley, 2007). They thus provide a fruitful basis for many research opportunities.

To date, research has established a broad understanding of entrepreneurial teams at the different stages of their life cycle (see Patzelt et al., 2021 for a comprehensive review). Studies show how entrepreneurial teams might form (e.g., via an interpersonal-attraction strategy or a resource-seeking strategy; Lazar et al., in press, 2020), explain the effects of different characteristics and compositions of entrepreneurial teams (e.g., the effects of team composition or team heterogeneity on the venture; Bird & Zellweger, 2018; Knockaert et al., 2011, 2015), and provide insights into the cognitive (e.g., shared stories; Kammerlander et al., 2015) and socioemotional mechanisms (e.g., entrepreneurial passion diversity; de Mol et al., 2020) that drive how entrepreneurial teams advance their ventures. Research has also shed light on the antecedents and consequences of (co)founder exits (Breugst et al., 2015; Dehlen et al., 2014; DeTienne, 2010; Rouse, 2016). Overall, these insights are often linked to outcomes that span different levels and topics within the scholarly field of entrepreneurship, such as venture performance (Boone et al., 2020), creativity (Perry-Smith & Coff, 2011), the cofounders' investment of effort (Breugst et al., 2020), entrepreneurial team viability (Foo et al., 2006), or leader emergence (Sirén et al., 2020). However, several topics at the intersections of the concept of entrepreneurial teams and their organizing behaviors, venture ideas, and environments remain understudied and thus offer important avenues for advancing our understanding of the entrepreneurial phenomena. Setting the focus on entrepreneurial teams and with that on the people driving their ventures, this dissertation addresses the following three intersections: (1) the intersection of entrepreneurial teams, their organizing behaviors, and the development of the venture idea, (2) the intersection of entrepreneurial

teams' organizing behaviors and how they impact the cofounders, and (3) the intersection of entrepreneurial teams and how they navigate their market environment.

Entrepreneurial teams, their organizing behaviors, and the development of the venture idea. Developing a promising venture idea is challenging when embarking on the entrepreneurial journey (Vogel, 2017). To help mitigate these challenges, past research points to the benefits of identifying several market opportunities before choosing to pursue one (Gruber et al., 2008) or experimenting with different ideas (Andries et al., 2013). However, even after choosing a venture idea, some founders may need to engage in pivoting and thus in a process of creatively revising their venture idea (Grimes, 2018; Kirtley & O'Mahony, in press). Following the importance of being able to pivot towards a more optimal venture idea, studies have aimed to find patterns in how founders pivot (e.g., Berends et al., 2021; Grimes, 2018; Kirtley & O'Mahony, in press). For instance, research finds that founders make a cascade of decisions to gradually shift their resources towards a novel direction in the pivoting process (Kirtley & O'Mahony, in press). They simultaneously start managing and communicating the pivot to their external stakeholders (Hampel et al., 2020; McDonald & Gao, 2019).

Although prior studies have provided valuable insights into first patterns and processes surrounding pivoting, they have largely neglected that many ventures are founded by entrepreneurial teams. Yet, entrepreneurship research shows that teamwork impacts creative processes (Perry-Smith & Coff, 2011) and ventures' opportunity development (Preller et al., 2020). Because we lack insights into how entrepreneurial teams shape pivots in their ventures, we are likely missing the role of teamwork in our theorizing on pivoting. Contrary to solo-operating founders, who choose themselves how and where to invest their resources, cofounders in entrepreneurial teams need to engage in teamwork to align their ideas of where and how to allocate resources (Lazar et al., 2020). By setting out to understand

pivoting in ventures run by entrepreneurial teams, the first study bridges the intersection of research on entrepreneurial teams, their organizing behaviors, and the development of the venture idea and asks the research question:

> ***Question 1.*** *How do entrepreneurial teams engage in a pivoting process of the venture idea?*

Organizing behaviors and how they impact the cofounders of entrepreneurial teams. Management studies find that financial rewards serve as a motivation to teams that helps increase teams' performance (Garbers & Konradt, 2014). However, entrepreneurial teams commonly lack sufficient financial resources to provide such immediate financial rewards to founders (Carter et al., 1996). To make up for this lack of immediate financial rewards, entrepreneurial teams might draw on the allocation of equity among their founders as an incentive (Hellmann & Wasserman, 2017), because also the expectation of large financial rewards in the future, such as from a trade sale or an IPO, serves as an important motivation (Hellmann et al., 2019). To date, research on equity ownership has predominately taken a rational, economic perspective by arguing that equity ownership is the primary form of compensation (Campbell, 2013; Wasserman, 2006) and key incentive for founders in entrepreneurship (Kagan et al., 2020). These studies suggest that more equity ownership in a venture is beneficial for its founders.

However, the rational, economic perceptive tends to neglect the dual nature of ownership, as psychological ownership theory argues that equity ownership not only results in the possession of equity stakes (legal ownership), but also impacts founders' perceptions of being tied to the venture (psychological ownership; Etzioni, 1991; Pierce et al., 2001). According to the theory (Pierce et al., 2001, 2003), ownership can be a double-edged sword. On the one hand, it may involve feelings of responsibility, care, and concern for the possession (Pierce et al., 2001), but on the other hand, it may also have a "dark side" (Baer &

Brown, 2012, p. 61) and trigger feelings of possessiveness and territoriality with respect to the possession (Brown et al., 2005). Hence, the notion of "the more, the better" might not always hold true, particularly for founders in entrepreneurial teams. By considering the dual nature of ownership and thus including a psychological ownership perspective, the second study sets out to bridge research at the intersection of organizing behaviors and entrepreneurial teams, and more holistically explain the effects of owning equity on founders and their identification with the entrepreneurial team. It asks the research question:

> ***Question 2.*** *How is a founder's equity ownership related to their identification with the entrepreneurial team?*

Entrepreneurial teams navigating their environment. Entrepreneurial teams might struggle to navigate their industry environment (Breugst et al., 2020), especially if they perceive their environment to be hostile and thus "characterized by precarious industry settings, intense competition, harsh, overwhelming business climates, and the relative lack of exploitable opportunities" (Covin & Slevin, 1989, p. 75). Such a perceived hostile environment can even increase the chances of an entrepreneurial team (Foo et al., 2006; Shane & Foo, 1999) or venture breakup (Miller, 1994; Zahra, 1993). Hence, prior studies have identified behavioral changes and potential strategies entrepreneurial teams may employ to mitigate the chances of breakups. For instance, they may seek to pursue a more unconventional strategy (Holburn & Vanden Bergh, 2008), create a buffer by holding financial slack (Bradley et al., 2011), or invest more effort to counteract the threats stemming from their hostile environment (Breugst et al., 2020).

Although studies have identified potential strategies entrepreneurial teams employ to tackle the challenges inherent to their perceived hostile environment, we lack insights into the socioemotional behaviors that might support entrepreneurial teams in dealing with their challenging environmental conditions. This lack of insight is surprising, because such

challenging environmental conditions have substantial affective consequences for the teams facing these conditions (Barsade & O'Neill, 2014). For this reason, the strategies entrepreneurial teams employ are likely to be affected by the entrepreneurial teams' socioemotional behaviors (Casciaro & Lobo, 2008). Hence, building on research on socioemotional behaviors and specifically, investigating the entrepreneurial teams' use of humor, the third study sets out to span research at the intersection of entrepreneurial teams and their market environments. I explore the impact of humor in helping teams deal with challenging environments by asking the research question:

> ***Question 3.*** *To what extent does team humor counteract the positive relationship between perceived environmental hostility and the likelihood of entrepreneurial team and venture breakups?*

1.2 Research framework

I draw on qualitative and quantitative techniques to address the research questions in my dissertation. I selected the respective research method depending on the state of the theory and thus the research question (Edmondson & McManus, 2007). In the first study, I conducted an inductive qualitative multiple case study to unravel the pivoting process of entrepreneurial teams (Study I). Second, in a deductive quantitative study and employing hierarchical linear modeling, I explored how the size of a founder's equity stake impacts their subsequent identification with the team (Study II). Third, using a deductive quantitative study and drawing on structural equation modeling, I studied to what extent entrepreneurial teams' humor can contribute to both entrepreneurial team and venture survival in hostile market environments (Study III).

Study I empirically explores how entrepreneurial teams engage in a pivoting process of their venture idea. To do so, I build on recent work that has started to investigate the patterns that surround pivoting in entrepreneurship (Grimes, 2018; Kirtley & O'Mahony, in press) and the literature on teamwork in entrepreneurial teams (Blatt, 2009). Given the lack of

theoretical and empirical insights into the pivoting process driven by entrepreneurial teams, I decided to draw on a qualitative multiple case approach (Eisenhardt, 1989, 2021). The study relies on longitudinal data stemming from at least two rounds of interviews with each cofounder of 7 entrepreneurial teams (49 interviews in total), as well as observational data, field notes, and secondary data, such as from the ventures' websites or social media accounts. I theoretically sampled entrepreneurial teams "where the focal phenomenon is likely to occur" and "where similarities and differences across cases are likely to improve theory building" (Eisenhardt, 2021, p. 149). Specifically, I drew on the racing design (Eisenhardt, 2021), as I did not know beforehand which teams were going to engage in pivoting. By the end of data collection, I was left with three cases of entrepreneurial teams that pivoted and four cases of entrepreneurial teams that persevered with their venture ideas. To analyze the cases and develop theory around how entrepreneurial teams are able to engage in a pivoting process of their venture idea, I conducted multiple rounds of coding and created different visual displays of the data. Following recommendations for multiple case study research, I iteratively moved forward, always going back and forth between the data and existing theory (Walsh et al., 2015).

Study II explores the impact of a founder's equity stake on their perceptions of the entrepreneurial team. Specifically, I draw on psychological ownership theory and research on team rewards to understand how a founder's equity stake might impact their identification the team. Given the established theoretical research basis I build on (Pierce et al., 2001, 2003), I employed a quantitative deductive research design. I used a longitudinal data set that consists of survey data spanning four points in time as well as interview data. I captured the main independent variable, a founder's equity stake from the interview data with each founder within the entrepreneurial teams. I then drew on the survey data at t_1 and t_2 for all control variables, captured the moderating variable at t_2 and t_3, and attained the dependent variable

from the survey data at t_3 and t_4. In following this approach, I was able to model the temporal precedence inherent in my theorizing (Gollob & Reichardt, 1987; Maxwell & Cole, 2007) and minimize common method variance (Podsakoff et al., 2003, 2012). For analyzing the data, I used hierarchical linear modeling, which accounts for the nested structure of the data as well as for the dependent variable at time t changing as a function of the independent variables at t-1 (Schonfeld & Rindskopf, 2007). The final data set for the analysis consists of 156 data points from 82 founders of 50 entrepreneurial teams.

In Study III, I delve into research on the impact of perceptions of environmental hostility in entrepreneurial teams and theorize on the effect of team humor as a potential coping mechanism that can help entrepreneurial teams overcome the detrimental effects of such a perceived environment. Specifically, I build on research on the venture environment to argue that perceptions of environmental hostility can increase the chances of team (Foo et al., 2006; Shane & Foo, 1999) and venture breakups (Covin et al., 2000; Zahra, 1993). I then draw on research on socioemotional behaviors and their impact on teamwork (Casciaro & Lobo, 2008) to theorize how team humor may mitigate these relationships. To investigate the extent of the relationships, I employed a deductive quantitative research approach and draw on a data set that consists of different data sources collected at two points in time. At the first point in time, all cofounders of an entrepreneurial team completed an online survey from which I capture the independent and control variables. The dependent variables are attained two years after the survey by coding team and venture breakups from secondary data sources on the entrepreneurial teams and their ventures, such as firm registry data or business profiles. As the research question and theorizing are at the team-level, I checked if the intra-team agreements between the cofounders were sufficiently high (James et al., 1984; LeBreton & Senter, 2008), before I aggregated the cofounders' survey responses to the team-level (Quigley et al., 2007). Then, I analyzed the data using structural equation modeling, which

accommodates the presence of the two dependent variables. The final analyzed data set includes the responses of all 276 active cofounders of 114 entrepreneurial teams.

Overall, my thesis is a compilation of three papers that each provide a different view on the broader topic of entrepreneurial teams and use different research methods and analysis techniques. Table 1 provides a short overview of the studies, including the research question, methodological approach, and key findings. Following this introduction are the three studies. Thereafter, in a general conclusion, I synthesize the main findings of my research and discuss the implications and limitations. Finally, I propose avenues for future research and link them to a broader research agenda.

Table 1. Overview of the three studies in this dissertation

	Study I	**Study II**	**Study III**
	How can entrepreneurial teams pivot their venture idea?	**Equity ownership and a founder's identification with the entrepreneurial team**	**Does environmental hostility break the team and the venture? Team humor as a coping mechanism in perceived hostile environments**
Research Question	How do entrepreneurial teams engage in a pivoting process of the venture idea?	How is a founder's equity ownership related to their identification with the entrepreneurial team?	To what extent does team humor counteract the positive relationship between perceived environmental hostility and the likelihood of entrepreneurial team and venture breakups?
Method	Qualitative study: Coding of qualitative data to develop a process model with variance in outcomes	Quantitative study: Hierarchical linear modeling of a curvilinear effect on the dependent variable	Quantitative study: Structural equation modeling with two binary dependent variables

Sample and Data	49 interviews and triangulation data (e.g., internal documents, archival data, field notes) of seven entrepreneurial teams	Interview data and longitudinal survey data comprising 156 observations from 82 founders nested in 50 entrepreneurial teams	Survey data and secondary data (e.g., firm registries, social media entries) of all 276 cofounders of 114 entrepreneurial teams
Findings	Relational dynamics and how entrepreneurial teams coordinate their work in spaces—that is, bounded social settings—emerged as the main concepts that shape an entrepreneurial team's ability to pivot. Entrepreneurial teams with expedient relational dynamics met in directed spaces and developed a rather compartmentalized understanding of their venture idea. They persevered. Entrepreneurial teams with organic relational dynamics met in directed and undirected spaces. They developed a more holistic view of their venture idea and were thus able to engage in pivoting.	Owning more equity can have opposing effects on founders' subsequent identification with the entrepreneurial team. It can trigger feelings of responsibility and care for the venture, but also possessiveness and territoriality. These opposing effects result in a curvilinear (inverted U-shaped) relationship. Founders' perceptions of team performance accentuate the curvilinear relationship.	Entrepreneurial teams' perceptions of environmental hostility increase the likelihood of an entrepreneurial team or venture breakup. Team humor mitigates the likelihood of an entrepreneurial team or venture breakup if entrepreneurial teams perceive themselves to be facing hostile environments. At very high levels of team humor, these relationships flip, and the odds of breakups are reduced.
Contributions	Contributions to the literatures on pivoting, entrepreneurial teams, and spaces	Contributions to the literatures on equity ownership, entrepreneurial teams, and psychological ownership	Contributions to the literatures on coping in entrepreneurship, entrepreneurial teams and environmental hostility

2 STUDY I:

HOW CAN ENTREPRENEURIAL TEAMS PIVOT THEIR VENTURE IDEA?[1][2]

Abstract: This study explores how entrepreneurial teams are able to pivot their venture idea. To date, research focuses on pivoting at the individual- and venture-level, by highlighting how founders may come to creatively revise their venture idea or how they manage their pivot with external stakeholders. Following the importance of entrepreneurial teams in the process of developing venture ideas, we shift the focus to a team-level and introduce entrepreneurial teams as the agents of pivoting. Using a multiple case study design based on seven cases of entrepreneurial teams, our emergent model reveals that variation in entrepreneurial teams' relational dynamics and their way of coordinating work in spaces impact an entrepreneurial team's ability to pivot the venture idea. With this study, we contribute to the literatures on pivoting in entrepreneurship, entrepreneurial teams, and more generally to the literature on spaces.

[1] This study is coauthored by Nicola Breugst and Anna Brattström, who continuously gave feedback and reviewed the study. Given that the paper is coauthored, I will refer to "we" rather than "I" throughout Study I.
[2] Earlier versions of this study were accepted and discussed at the Annual Meeting of the Academy of Management in 2020, at the Babson College Entrepreneurship Research Conference in 2020 and at the Annual Interdisciplinary Conference on Entrepreneurship, Innovation and SMEs in 2018 and 2020.

2.1 Introduction

While founders start their entrepreneurial journey with a venture idea, they still have limited knowledge about its feasibility (Shepherd et al., 2000). As founders develop the venture and receive feedback, they might need to change direction and revise the original venture idea (Grimes, 2018; Kirtley & O'Mahony, in press). Entrepreneurship research has recently started studying such revisions, referred to as pivots (Grimes, 2018). For instance, founders' traits (Wood et al., 2019) and psychological attachment to the venture idea (Grimes, 2018) shape whether and how they might engage in pivoting. In the pivoting process, founders make a cascade of decisions to gradually shift their resources in a novel direction (Kirtley & O'Mahony, in press), while they simultaneously manage and communicate the pivot to their external stakeholders (Hampel et al., 2020; McDonald & Gao, 2019). Consequently, these founders pursue an alternative venture idea along a revised timeline (Berends et al., 2021). Indeed, venture success may depend on the founders' ability to experiment with different ideas (Andries et al., 2013; Brown & Eisenhardt, 1997) or adapt towards a more optimal idea (McDonald & Eisenhardt, 2020).

Although past studies have focused on defining the pivot and gaining insights into the patterns surrounding it, they have neglected that many ventures are founded by entrepreneurial teams. Yet, research in entrepreneurship has pointed to the importance of considering teamwork in creativity (Perry-Smith & Coff, 2011) and opportunity development (Preller et al., 2020). Hence, we are likely missing the role of teamwork in our theorizing on pivoting, as we do not sufficiently understand how entrepreneurial teams shape pivots in their ventures. In contrast to solo-operating founders, who can decide themselves how to allocate their resources, cofounders in entrepreneurial teams need to engage in teamwork to align their resource allocation in the creative process of revising the venture idea (Lazar et al., 2020). Our paper sets out to understand pivoting in ventures run by entrepreneurial teams by asking

the research question: How do entrepreneurial teams engage in a pivoting process of the venture idea?

With the present study, we aim to extend prior work on pivoting which has mainly taken an individual- or venture-level perspective by highlighting how pivots are the act of an entrepreneurial team. Specifically, we explore the role of teamwork for the entrepreneurial team's ability to pivot. Therefore, we engage in an inductive case study of seven entrepreneurial teams in the knowledge intensive sector. Following the practice by Kellogg (2009, 2012), we selected cases with similar compositional and contextual characteristics to allow for a comparison of teamwork in the entrepreneurial teams. Our data encompass regular interviews with all cofounders of the entrepreneurial teams, participant observations, as well as archival documents, such as grant applications, pitch presentations, and website data.

Our analytical comparison reveals the point of variation in an entrepreneurial team's ability to engage in pivoting to be within the teamwork of the entrepreneurial team. Exploring this observation through inductive coding of our case data, we identify differences in the *relational dynamics*, that is the "patterns of interaction" in teams to underlie teamwork and thus guide pivoting (Lee et al., 2020, p. 96). We differentiate between expedient and organic relational dynamics. Further delving into our data, we find *spaces*—"bounded social settings characterized by particular types of interaction" (Bucher & Langley, 2016, p. 601)—to act as enablers of these patterns of interaction and provide insights into directed and undirected spaces. We show how organic relational dynamics allow for the combination of directed and undirected spaces, which help entrepreneurial teams think holistically about the venture idea, modularize it, and thus engage in pivoting. Moreover, we demonstrate why expedient relational dynamics that enable only directed spaces can prevent teams from pivoting.

Our study contributes to the literatures on pivoting, entrepreneurial teams, and spaces. First, our findings add to the literature on entrepreneurial pivoting (Berends et al., 2021;

Grimes, 2018; Kirtley & O'Mahony, in press) by including a team-level perspective. We illustrate how, by leveraging the novelty and thus lack of familiarity and routines in entrepreneurial teams (Blatt, 2009), entrepreneurial teams can engage in pivoting. Specifically, organic relational dynamics create the opening for undirected spaces to emerge and these undirected spaces then provide room for cofounders to address diverging holistic narratives. In sharing and discussing their holistic narratives, entrepreneurial teams can modularize the venture idea and ultimately pivot.

Second, our study challenges research on entrepreneurial teams that urges entrepreneurial teams to professionalize their structures and processes (Jung et al., 2017; Sine et al., 2006; Talaulicar et al., 2005). We argue that in the early stages of venture development, in which entrepreneurial teams and their venture ideas are often still dynamic (Andries et al., 2013; Lazar et al., 2020; McDonald & Eisenhardt, 2020), professional structures might inhibit a team's ability to pivot the venture idea, although pivoting can be a necessary step for improving the venture idea (Andries et al., 2013; McDonald & Eisenhardt, 2020). Hence, even though directed spaces are important for advancing a venture idea, undirected spaces are critical in enabling teams to engage in pivoting.

Third and more generally, we contribute to the literature on spaces, by exploring potential boundary conditions. The literature on spaces assumes that the desired subject of change is known (Bucher & Langley, 2016; Kellogg, 2009; Lee et al., 2020). However, entrepreneurial teams might need to act upon unforeseen feedback and substantially alter their venture idea (Grimes, 2018; Kirtley & O'Mahony, in press). While the literature sees spaces as drivers of change when the ultimate aim of the change is known and understood, they might also inhibit change when this is not the case. Particularly, spaces devoted to a specific topic might infer a resistance to change as their symbolic boundary does not provide the necessary openness for developing and discussing divergent ideas.

2.2 Theoretical background

2.2.1 Pivoting

Founders cannot foresee whether a venture idea will be successful or not, as the entrepreneurial journey is shrouded in uncertainty (McKelvie et al., 2011). They gradually try to reduce uncertainty by collecting information from various stakeholders (Ravasi & Turati, 2005). With more information at hand, first conceptualizations of the venture idea might turn out to be unfeasible, problematic, or at least, not the best possible opportunity to pursue. Particularly when such novel information and external feedback expands or conflicts with founders' current perceptions (Grimes, 2018; Kirtley & O'Mahony, in press), they can decide to revise their venture idea (Grimes, 2018). Although these revisions might be minor adaptations to the original venture idea in the hopes of incrementally improving the value the venture brings to its customers, they can also lead to major reorientations (McDonald & Gao, 2019). Both in entrepreneurship research and practice, such extensive changes of the venture idea are referred to as pivots (Grimes, 2018; Kirtley & O'Mahony, in press; Ries, 2011).

Pivoting is defined as the "process of creative revision" of a venture idea (Grimes, 2018, p. 1693). This process can affect the market, technology, and/or the product itself, as long as it entails that founders shift their venture's resources towards a novel direction (Kirtley & O'Mahony, in press). Thereby, founders engage in pivoting during different stages of the founding process. Some founders might initiate changes of their venture idea during the early incubation phase (Grimes, 2018; Wood et al., 2019), while others change direction later in the founding process, for instance after having received substantial funding from external investors or after having launched the product or service on the market (Hampel et al., 2020; McDonald & Gao, 2019).

To date, the emergent literature on pivoting has taken different perspectives. One line focuses on the management of pivoting, such as how founders engage in a cascade of

decisions with which they incrementally add or remove elements of their venture idea. Over time, these additions and removals form a pivot—the ultimate revision of the venture idea (Kirtley & O'Mahony, in press). While pursuing the process of pivoting, founders rethink their timelines and accordingly adjust their actions and behaviors (Berends et al., 2021). They might also engage in a dialogue with their social environment, such as with peers in the incubator, to make sense of the feedback prior to adapting their venture idea (Grimes, 2018). In addition, research has shown how founders undergoing a pivot design the process of experimentation (Brown & Eisenhardt, 1997), engage in incremental planning (Hiatt & Sine, 2014), and employ rhetorical strategies to legitimize a pivot (McDonald & Gao, 2019).

Another line of studies focuses on the consequences of pivoting. In particular, Grimes (2018) shows that when founders pursue a creative revision, the process interferes with the founder's identity, making it necessary for them to engage in identity work. However, not only does such a pivot have internal consequences for the founder and the venture, it also impacts the relationships between founders and their external stakeholders (Hampel et al., 2020; McDonald & Gao, 2019). For instance, creatively revising the venture idea without being penalized by the various audiences requires founders to develop a communication strategy that allows them to display the changes while also emphasizing enduring aims (McDonald & Gao, 2019).

Even though past studies offer important insights into the patterns underlying pivots, given the prevalence of teams in entrepreneurship (Ruef, 2010), that is "two or more [cofounders] who pursue a new business idea, are involved in its subsequent management, and share ownership" (Lazar et al., 2020, p. 29), prior work has not sufficiently taken the role of teamwork in shaping the process of pivoting into account. In contrast to solo-operating entrepreneurs, who are themselves responsible for advancing their venture idea, in entrepreneurial teams, multiple cofounders work together to realize the common goal of

developing a venture. Past research argues that teamwork influences venture-related outcomes, such as creativity by impacting the generation and selection of novel ideas (Perry-Smith & Coff, 2011), or opportunity development by affecting whether and how entrepreneurial teams focus their opportunity development process (Preller et al., 2020). Hence, because teamwork affects outcomes closely connected to pivoting, not considering the role of the team most likely leaves an important facet of the pivoting process unexplored.

2.2.2 Teamwork in entrepreneurship

We build on literature on entrepreneurial teamwork to theoretically explore how entrepreneurial teams might engage in a pivoting process of their venture idea. Specifically, research emphasizes the interdependence of both an entrepreneurial team's structure and the relationships among the cofounders in developing and advancing the venture idea (Blatt, 2009). Regarding an entrepreneurial team's structure, prior studies focus on how entrepreneurial teams might separate their roles and responsibilities to enable cofounders to productively work together and achieve alignment in realizing their venture (Sine et al., 2006). For instance, team members rely on status and expertise cues to allocate roles and positions within the team (Jung et al., 2017). Entrepreneurial teams with such formalized and specialized roles might then outperform those with rather organic structures (Sine et al., 2006). Similarly, a departmental model in entrepreneurial teams—a model in which cofounders have an area of expertise and decision authority—enables increased decision speed and comprehensiveness (Talaulicar et al., 2005). Further, contracting practices and thus the formalization of the entrepreneurial team might support the team in overcoming issues related to novelty (Blatt, 2009). Overall, these studies point towards the importance of professionalization and clear structures in entrepreneurial teams as a means of aligning their work and thus developing the venture idea.

However, to execute these professional and clear structures, studies also emphasize the importance of cofounders' relationships, as these relationships guide all interactions and are thus essential to teamwork (Blatt, 2009; Rouse, 2020). In particular, relational scripts and schemas associated with feelings of "we" might support entrepreneurial teams in better aligning their work (Rouse, 2020). Similarly, communal relational schemas—"caring about one another's needs" —aid entrepreneurial teams in overcoming issues related to novelty, and thus in productively developing their venture idea (Blatt, 2009, p. 533). Taken together, close relationships and clear structures within the entrepreneurial team seem to be intertwined to enable entrepreneurial teams to productively develop and advance their venture idea (Blatt, 2009). However, past research on entrepreneurial teams focuses on how entrepreneurial teams might develop their current venture idea. Yet, we lack insights into whether these structures and processes also enable pivoting in entrepreneurial teams and thus a venture idea's creative revision. Building on research focusing on both the structure and relationships within the entrepreneurial team to develop the venture, we set out to explore how entrepreneurial teams engage in a pivoting process of their venture idea.

2.3 Method

Qualitative inductive field studies are appropriate to understand phenomena in depth and reveal the patterns leading to these phenomena (Edmondson & McManus, 2007). Hence, we draw on the multiple case study approach to compare entrepreneurial teams engaging in pivoting with teams that persevere with their venture ideas. In doing so, we identify points of variation and uncover how some early-stage entrepreneurial teams develop the ability to pivot, while others stick to their initial ideas (Eisenhardt, 1989; Eisenhardt & Graebner, 2007).

2.3.1 Sample selection

For this study, we theoretically sampled entrepreneurial teams "where the focal phenomenon is likely to occur" and "where similarities and differences across cases are likely to improve theory building" (Eisenhardt, 2021, p. 149). As we did not know beforehand which teams were going to engage in pivoting, we chose to follow entrepreneurial teams that started their entrepreneurial endeavors under similar conditions (Kellogg, 2009, 2012), referred to as a racing design (Eisenhardt, 2021). We based our sampling approach on three criteria. First, we focused on entrepreneurial teams that were part of the same incubation program in a large European metropolitan area near the first author. This focus not only allowed us to stay in close contact with the entrepreneurial teams over longer periods of time, which gave us access to real-time data when the pivots occurred, but also enabled us to study ventures that had access to similar resources and aids during the incubation program. Second, we sampled entrepreneurial teams that were formed no longer than two years prior to starting the study and thus still part of the incubation program. The main aim of the incubation program is to support entrepreneurial teams prior to founding the venture in bringing their first technologies to the market. We assumed that in this early stage, entrepreneurial teams are more likely to engage in pivoting, as they are still aiming to find the optimal product-market fit. Third, we sampled entrepreneurial teams in which cofounders had no prior joint founding experiences to rule out any instances of pivoting prior to the present study.

We contacted thirteen entrepreneurial teams of which ten agreed to participate in the study. In the process of data collection, we excluded three entrepreneurial teams, as these teams decided to end their joint entrepreneurial endeavor during the process of data collection. We provide an overview of the entrepreneurial teams included in this study in Table 2.

Table 2. Overview of cases

Venture	Cofounders	(Initial) Industry	Interviews in venture	Secondary Data	Venture idea development overview		Outcome
					Initial venture idea	Venture idea changes	
A	Amy Aaron	Professional services (Employee health)	8	Social media postings, website	Sports program to promote employee health	Adaptations to algorithm to better adhere to medical conditions of users	Perseverance
B	Bob Ben	Professional services (Data protection)	5	Product development presentations by employees, observational data from meeting, website	Software to help companies adhere to data protection guidelines	Addition of features to software as requested by employees and potential customers	Perseverance
C	Christian Charlie Connor	Professional services (Data processing)	7	Product development presentations by employees, observational data, website	Software to process chemical data	Addition of features to software as requested by potential pilot customers	Perseverance
D	David Dylan Dominic	Professional services incl. physical product (Employee health)	6	Product development presentations by employees, guest lecture, spontaneous conversations, observational data from meeting, website	Software and product to help employees overcome addiction	Refinements of software and product to make product more user friendly and better combat addiction	Perseverance
E	Edward Ethan Ellie	Physical product incl. professional services (Biochemistry)	12	Online interviews, website, spontaneous conversations, website	Chips and analysis tool for spectroscopy	1. Addition of new product and analysis tool for bioreactor monitoring 2. Change of market to producers of bioreactors	Pivot
F	Finn Felix Fletcher	Professional services (Team development)	6	Online interviews, pitch presentation, website	Software providing automated feedback and coaching to teams	1. Change of market to recruiting 2. Change of software to analyze applicants personalities	Pivot
G	Gregor Gabriel	Professional services (Team development)	5	Product development presentations by employees, blog posts, website	Software to help match teams	1. Change of product to monitoring existing teams 2. Change of product to knowledge sharing platform for teams	Pivot

2.3.2 Data collection

Interviews. The primary source of data are semi-structured interviews with all cofounders of the entrepreneurial teams. Whenever possible, we additionally spoke to first employees or interns, who were involved in developing the products or services to gain additional insights into how the entrepreneurial teams developed their venture ideas. The interviews mainly took place at the teams' office spaces, which gave us a better understanding of how the cofounders organized their teamwork. If the teams did not have their own office spaces, we had the conversation in the first author's office. We spoke to all cofounders separately, as we wanted to listen to each perspective to be able to create a comprehensive picture of how the teams engaged in teamwork and developed their venture ideas. Overall, we interviewed all cofounders at least twice, leaving six to eight months between the two rounds of interviews.

Following recommendations for exploratory research, we crafted the interview guideline using open-ended questions. Additionally, we asked interviewees to describe specific situations, which allowed us to get a more concrete grasp of their teamwork. The interviews started in a broad way with the aim to better understand teamwork and the development of the venture idea in general. However, as soon as first constructs emerged, we started adapting questions to gain richer and deeper insights into the phenomena of interest. Particularly between the first and the second round of interviews, we changed the guideline to better address the research question. Examples of interview questions are "What venture idea are you currently pursuing?" or "Please describe the most difficult moment you experienced since working on the venture.".[3]

[3] See Appendix 1 for interview guidelines.

For our final sample, we conducted 49 interviews with all 18 cofounders of the seven entrepreneurial teams, which were recorded and transcribed. One cofounder asked us not to record his interviews, as he did not want any of his data including his voice saved on external servers or devices. To be able to recall the conversations, we therefore wrote detailed protocols immediately after the interviews. Additionally, we recorded and transcribed five conversations and have the protocol of one conversation with employees or interns. The interviews lasted between 26 and 70 minutes, with an average of 43 minutes, and add up to a total of 34 hours of audio recordings.

Observational and secondary data. To complement the interview data and thus mitigate potential recall and rationalization biases, we collected observational data and secondary information about the teams. When visiting the offices, we took notes of how the cofounders interacted with one another and of their working environment. In addition, the first author took part in a team meeting and several get-togethers of two teams. Four entrepreneurial teams were guest speakers in classes of the authors where they talked about their entrepreneurial journey and gave us an idea of how they present their journey to an outside audience. Beyond these observational data, we collected newspaper articles, articles from online magazines, online interviews, and social media content on the teams and the ventures. We also have PowerPoint presentations (e.g., pitch presentations and presentations by interns) and reports (e.g., applications for government grants) of some of the teams. These data were used to strengthen our primary interview data. Table 2 provides an overview of the data for each case.

2.3.3 Data analysis

We went into the process of data analysis with an open mind, seeking to find patterns between entrepreneurial teamwork and the development of the venture idea. To identify these patterns, we conducted multiple rounds of coding and mapped out the data. Overall, we

iteratively moved forward, going back and forth between the existing theory, data collection, and data analysis (Eisenhardt, 2021).

Step 1. In a first step, we began with a within case analysis, as suggested by Eisenhardt (1989). We wrote a case history for each entrepreneurial team and graphically mapped out how the team and the venture evolved over time. Additionally, we crafted a timeline to display the most important milestones, such as when the entrepreneurial team acquired funding, when they launched their product, or when they hired their first employees.

After making ourselves familiar with each of the cases in depth, we started comparing the cases with one another (Eisenhardt, 1989). Among the seven cases we studied, we found that four *persevered*, meaning that they stuck to their venture idea, whereas three *pivoted*, that is, they engaged in the creative revision of their venture idea over the course of the study. We identified this as an important point of variation in outcome and decided to engage more deeply with our data to understand how these two outcomes emerged among the different cases. As research currently lacks insights into how entrepreneurial teams come to pivot, we used the notion of teamwork in a "sensitizing" way and thus as a point of departure for our further analysis (Miles & Huberman, 1994; Strauss, 1987). We drew on past studies to conceptualize teamwork as consisting of a relational and an organizational component (e.g., Blatt, 2009). As such, the notion of teamwork gave us general guidance and direction in analyzing our data but was broad enough to enable us to openly explore patterns underlying the variance in teamwork among our cases. For this process, we iteratively moved forward in coding our data and continuously discussed our insights as an author team.

Based on our initial analysis, the data suggested that even though all cases had the same starting point for their teamwork, as they distributed roles and responsibilities among the cofounders after they agreed on a venture idea, there indeed were several points of variation in their teamwork. For instance, the teams differed in how they enacted emotions

within the team (e.g., emotion suppression or expression), in how they worked with hierarchies among the cofounders (e.g., strict, rotating, or flat hierarchies), or in how they set their goals (e.g., internally generated goals or externally determined deadlines). However, these concepts did not seem to systematically explain why some entrepreneurial teams persevered with their venture idea and others pivoted. Yet, further delving into our data, we found the two groups of cases (those that persevered versus those that pivoted) to vary in how cofounders interacted with one another and in how they aligned their work. We considered these findings as interesting, as they have gained little attention both in prior research on pivoting and on entrepreneurial teams.

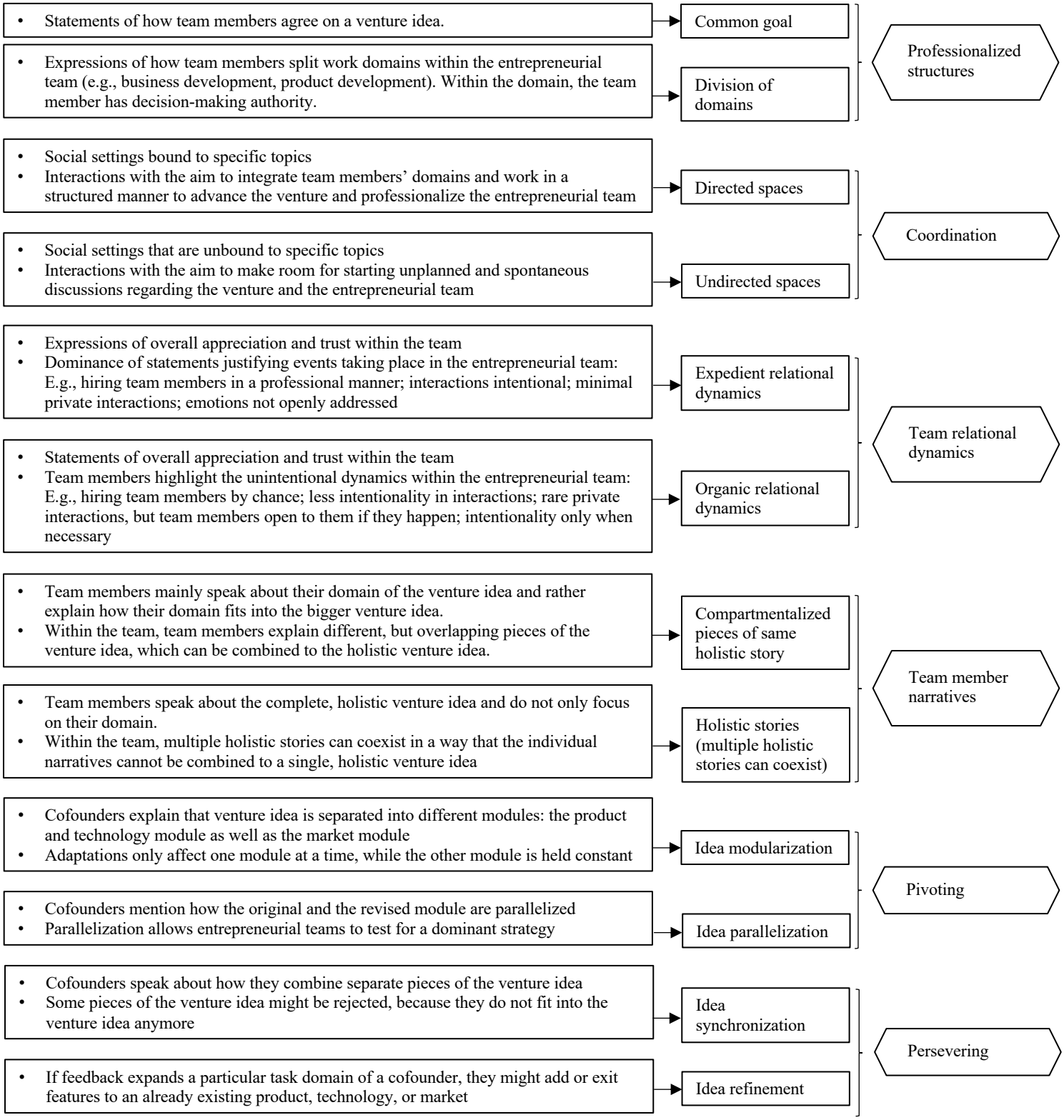
Step 2. After having identified that the variance among how entrepreneurial teams interact and align their work is related to the development of their venture idea, we engaged in granular coding to explore the first-order similarities and differences more systematically across the seven cases. To do so, we remained as close as possible to our data and coded any sequences from the interviews that were related to how cofounders interact with each other and align their work. For instance, regarding their interactions, we coded the quotes "If it [a personal issue] impacts the venture, we talk about it" (Dominic) and "I talk openly about my accident, because it helps others understand the situation that I am currently in" (Amy) as "private interactions if venture is affected". During this phase, we also coded information that provided us detailed insights into how the entrepreneurial teams developed their venture idea. Secondary data, for example the ventures' websites, became particularly useful for us to deepen our understanding of the process of venture idea development. These data enabled us to triangulate our primary interview data and identify if and how the changes mentioned in the interviews were displayed.

After we identified first-order codes and compared them among our cases, we started clustering our data with the purpose of developing an emergent theory about pivots in

entrepreneurial teams (Eisenhardt & Graebner, 2007; Miles & Huberman, 1994). Particularly, we aggregated similar first-order codes to derive second-order dimensions by iteratively moving forward using several established practices, such as visual displays and tables of our data (e.g., Eisenhardt & Graebner, 2007; Langley et al., 2013; Pratt, 2009). In addition, we continuously engaged in discussions to refine our concepts and emergent theory as an author team. During this process, for instance, we realized that some teams remained rather intentional in their daily interactions, planned team events, and even established professional practices for hiring and including new team members. By identifying these similarities from the first-order codes, we surfaced the second-order dimension "expedient relational dynamics", which we later define as interactions driven by intentionality and professionalism.

Out of the analysis, two core themes emerged (see Figure 1 for the data structure). The first theme is *relational dynamics,* as in the patterns of interaction within the entrepreneurial team (Lee et al., 2020). We noticed that these relational dynamics unfolded in *spaces*, that is, the bounded social settings (e.g., meetings) in which discussions about the ventures took place among all cofounders. We then leveraged our data and the literature on how teams align their work to theorize that the creation of spaces (Bucher & Langley, 2016) is a particular way of coordinating work (Faraj & Xiao, 2006), which is relevant for pivoting in entrepreneurial teams. Following the analysis, we went back to refine our second-order dimensions under each theme to capture our observations around the process of idea development in entrepreneurial teams, and in particular, the role of relational dynamics (i.e., expedient and organic) and spaces (i.e., directed and undirected). We then integrated these second-order concepts into a process model of pivoting in entrepreneurial teams to provide a dynamic illustration of how teamwork shapes pivoting, and how this process is driven by the relational dynamics within the team.

Figure 1. Data structure following suggestions by Gioia and colleagues (2012)



2.4 Emergent Theoretical framework

Our research question asks: How do entrepreneurial teams engage in a pivoting process of the venture idea? Our emergent theoretical framework suggests that after entrepreneurial teams have started working on their initial idea and allocated roles and responsibilities, those teams with particular ways of interacting and aligning their work view their venture idea more holistically instead of in a compartmentalized manner. In developing a holistic narrative of the venture idea, the team can modularize it, test different modules in parallel, and subsequently pivot. In the following, we turn to each theme in more detail to provide evidence and describe its logic. Figure 2 provides an illustration of the themes and their relationships in the emergent model.

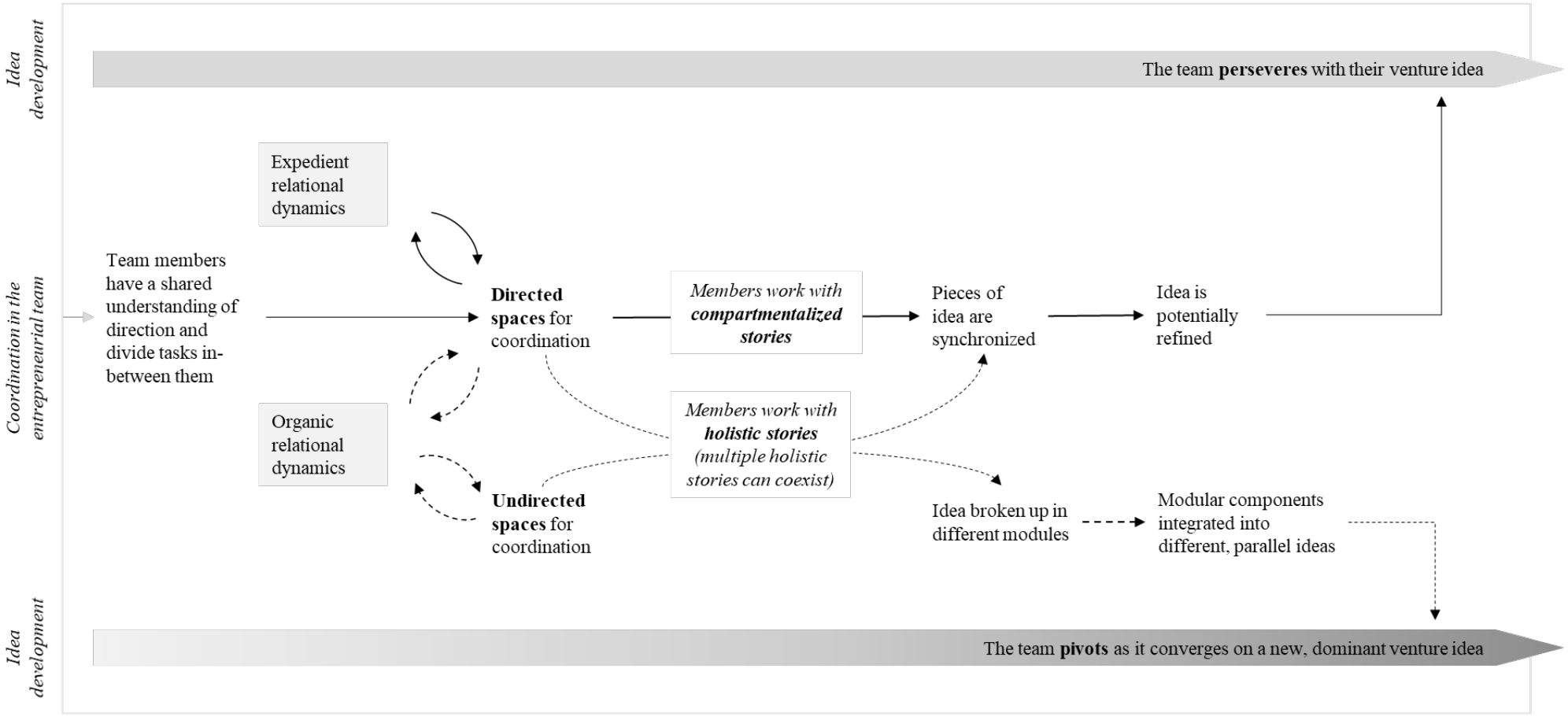
2.4.1 Entrepreneurial teams and their shared understanding and structures to develop the venture

All seven entrepreneurial teams began developing their entrepreneurial endeavor by agreeing on a common direction, and ultimately on a venture idea. Some teams formalized the common direction in a founder's agreement, as the cofounders of B did by writing and signing:

> *The founders have created the company for the sole purpose of building and selling software for data protection compliance (Founders' agreement, 2017, p. 1).*

Other teams orally agreed on the venture idea. For instance, Ellie described, "*we got the government stipend for founding a venture. That is when we fully committed to developing the chips for a specific type of spectroscopy."* To complement the agreement on a venture idea, the cofounders distributed roles and responsibilities among one another. In line with prior findings (Jung et al., 2017; Sine et al., 2006), the teams tended to allocate specialized roles according to the expertise of the cofounders. For instance, David explained, "*I am the CEO, Dylan is the CTO, and Dominic is the CDO*." Moreover, consistent with the departmental model described by Talaulicar et al. (2005), the cofounders often assigned decision-making

Figure 2. An emergent process model of how team relational dynamics and spaces shape idea development in new ventures



authority to their roles to allow for more speed in decision-making, which Edward mentioned, "*we have an informal hierarchy when it comes to our competencies. If someone has the competency with a topic (…), then we trust them. The person will know what they are doing."* Yet, after the initial agreement on a venture idea and the separation and allocation of roles and responsibilities among the cofounders, we noticed differences in how the cofounders of an entrepreneurial team interacted and aligned their work, which had an impact on their ability to pivot.

2.4.2 Team relational dynamics

Drawing on research on teamwork in entrepreneurial teams (Blatt, 2009; Rouse, 2020), our data too suggest that entrepreneurial teams have specific patterns of interaction guiding their teamwork. All teams in the present study developed close relationships, as they experienced feelings of "we" (Rouse, 2020). Yet, we identified different nuances in these relational dynamics and found the differences to be a key point of variation in explaining the differences in outcomes, that is whether the entrepreneurial teams engaged in pivoting or persevering: The entrepreneurial teams tended to either be more expedient or more organic in their relational dynamics. Conceptually, we define relational dynamics as the "patterns of interaction" in teams, which underlie teamwork and guide how cofounders interact with one another (Lee et al., 2020, p. 96).

Expedient relational dynamics. The patterns of interaction in teams that persevered tended to be characterized by rather *expedient relational dynamics*, that is, they were driven by intentionality and professionalism. While the cofounders in these entrepreneurial teams felt appreciation and trust towards each other and thus experienced feelings of "we"—like for instance David mentioned, "*I am in a team with absolute trust. It really doesn't matter what we are doing, but I know that together, we can do it"*—their interactions were likely to be well thought out and planned. These expedient relational dynamics became evident in how the

cofounders managed their interpersonal relationships and in how they scouted their employees to build new relationships. More specifically, the expedient relational dynamics showed in their (1) goal-focused daily interactions, (2) planning of fun, and (3) professional hiring process of employees.

First, the daily interactions in the entrepreneurial team were focused on a goal and thus driven by intentionality. The entrepreneurial teams tended to mention a reason for why they engaged in certain behaviors. For example, D decided that regular breaks from work are necessary to ensure productivity and thus implemented a routine to take breaks from work, *"if we aren't creative enough anymore, or if we cannot focus anymore, then we play [a video game]"* (David). In their case, playing a video game was not done out of enjoyment, but rather with the goal to switch off. Similarly, B felt the need to care for the team to keep up a good spirit and for that reason, brought snacks to the office:

> *I have started (...) to bring fruits as a motivation for each other, like, taking care of the family in a sense and other friends* (Ben).

Even though the interactions were enacted to care for the cofounders, and thus benefited the team, these entrepreneurial teams did not engage private interactions or caring behaviors beyond what they considered necessary for the professional functioning of their team:

> *It's not like we don't like each other; everything is cool between us. (...) But, we are three people and we want to found a million-dollar startup, so, we don't have time for such nonsense, like for a lot of pseudo-harmony stuff. (Dominic)*

Second, the entrepreneurial teams tended to purposefully plan events to have fun with one another, rather than to spontaneously enjoy time off together. For example, Amy organized an evening for the team to cook and have dinner together in her apartment, which she also combined with a team meeting. In this case, the entrepreneurial team combined spending time away from work and having fun with their regular weekly planning meeting, as they aimed to productively use the time spent together: "*Last week on Sunday, I organized a*

team meeting with cooking and so on, we all cooked together. And I find it really important that we don't just like each other at work, but also beyond [because we all not only have to believe in the idea, but also in the team]." Similarly, B organized an event to celebrate the launch of the product. There, they "*offered drinks and it was on company account and just to chat"* (Ben). Although all four teams—A, B, C, and D—organized and planned such events to spend time together, they refrained from spontaneous get-togethers as to not interfere with the private life of their cofounders. For instance, Bob mentioned, "*we try not to mix work and life, so we don't really hang out with each other, because we are in the office the whole day anyway"*.

Finally, expedient relational dynamics not only affected the interactions between cofounders, but also went beyond that to impact how entrepreneurial teams scout for and onboard their first employees. Entrepreneurial teams with expedient relational dynamics professionalized hiring their first employees, as the teams tended to choose candidates according to their expertise. They even standardized the hiring process. For instance, Ben explained that potential candidates were only invited to a job interview after they answered a questionnaire to determine their culture-fit. For the job interview, the entrepreneurial team then followed a four-eye principle:

> *Candidates apply and whoever has the role, either product or marketing, gets in touch. And usually what happens is that we have a 4-eye-principle. (…) [If a person applies for a product-related role] and they get through two people of the product team, they are approved*.

Organic relational dynamics. In contrast, the three teams that implemented pivots—E, F, and G—displayed *organic relational dynamics*, that is relational dynamics driven more strongly by spontaneity and friendship. The organic relational dynamics became evident in the teams' rather (1) unplanned daily interactions, (2) spontaneous occasions of fun, and (3) gut-feeling driven hiring process. First, the daily interactions of the cofounders seemed to be led by more spontaneity and less goal orientation. In the interviews, the cofounders were less

likely to justify their actions and behaviors. For instance, the cofounders of E mentioned how they might go for a quick coffee together or play table football. Additionally, even when interactions did not directly benefit the venture, the entrepreneurial teams did not shy away from them, as Edward mentioned:

> *When Ellie moved here, I helped her transport all the furniture. Of course, we do things like that. But I think those are just small things, we do that purely in our free time.*

Similarly, G liked meeting in the office, because they enjoyed seeing their cofounders and because "*there is table football and a ping pong table and that is really a lot of fun"* (Gregor). The entrepreneurial teams also sometimes spontaneously joked around, like F did, when they told each other the stories of their biggest fails:

> *Recently, I accidentally and indirectly offended a potential customer (…). So, she told me that face recognition is great, (…), because in a different context, the algorithm estimated her age at 35, and in reality, she was probably 50. And then I said, well, that wouldn't happen with our technology. That totally ruined the conversation. But now, I mean, I told the whole team the story, it was so stupid, but we make fun of it now* (Finn).

Second, in addition to having planned events, such as hiking trips to get to know each other personally, these teams also emphasized their spontaneous celebrations and get-togethers. For example, when E secured funding for the following two years, Ethan explained how they spontaneously celebrated their success as they received the call*, "we immediately stopped working and opened a bottle of sparkling wine. We also decided to take the next day off*." Of the same team, Ellie spoke about how they sometimes just took a few hours off to bike to a nearby lake. Similarly, Gregor mentioned that he often visited the fitness studio with his cofounder or that they sometimes, "*simply feel like partying together in the evening*".

Interestingly, these dynamics went beyond how cofounders interact with one another, and affected how entrepreneurial teams on boarded their first employees. This was noticeable in how the teams made hiring decisions. Although they had a job interview with potential candidates, they ultimately relied more on their gut-feeling when making the decision to hire

cofounders or employees. For instance, they mentioned that they agreed to just "*try it out in any case*" (Edward) or decided, *"we thought we would be dumb, if we wouldn't get him on board"* (Finn), despite the many challenges the candidate would bring.

In sum, we observe two different types of relational dynamics. The four teams that preserved their venture idea—A, B, C, and D—exhibited expedient relational dynamics, implying team dynamics characterized by intentionality and professionalism. The three teams that pivoted their business idea—E, F and G—exhibited organic relational dynamics, implying team dynamics characterized by spontaneity and friendship. For instance, in the entrepreneurial teams with organic relational dynamics, cofounders not only engaged in interactions with their cofounders if they benefitted the team. Instead, they also allowed for spontaneous open interactions, even if these interactions decreased their productivity, such as joking during office time. In the following section, we account for how these different relational dynamics interplayed with structural dynamics—spaces for coordination—underlying two different ways of work alignments.

2.4.3 Spaces for coordination

While literature on teamwork in entrepreneurship has previously focused on how entrepreneurial teams separate their roles and responsibilities as an important step in young entrepreneurial teams (Sine et al., 2006), this step also calls for the cofounders' to align and thus coordinate their work (Faraj & Xiao, 2006). Hence, we further delved into our data to gain deeper insights into the teamwork that impacts the development of the venture idea. In doing so, we found the relational dynamics to be intertwined with the coordination of cofounders' work, that is the "temporally unfolding and contextualized process of input regulation and interaction articulation to realize a collective performance" (Faraj & Xiao, 2006, p. 1157). Our data suggest that in order to achieve coordination, cofounders interrupted their own work to interact with their teammates and jointly develop ideas to advance the

venture. Hence, the entrepreneurial teams created *spaces* for coordination. Building on Bucher and Langley, we define spaces as "bounded social settings characterized by particular types of interaction" (2016, p. 601). We observe two different types of spaces for coordination among our teams, which diverged in their symbolic boundaries—the "labels and artifacts that determine which interactions belong to the space" (Bucher & Langley, 2016, p. 601)—and thus in their aims, and ultimately their outcomes. The first type is the *directed space*, meaning that discussions bound to particular topics about the venture took place among all cofounders. All seven teams in our study met in directed spaces. The second type is the *undirected space,* meaning that discussions open to any topics about the venture took place among all cofounders. Only the three teams that pivoted—E, F and G—met in undirected spaces. Hence, whereas the teams that preserved with their original ideas only met in directed spaces, the teams that pivoted met in both directed and undirected spaces. As we describe in the following, we observe how the different relational dynamics unfolded within these different spaces.

Directed spaces. Entrepreneurial teams created directed spaces to address and solve specific issues. Hence, directed spaces were bound to topics. Independent of their relational dynamics, the entrepreneurial teams tended to enter such a directed space prepared, discuss a specific topic, and leave the space having worked towards or achieved a desired outcome. A, B, C, and D only met in directed spaces to pursue their venture because their expedient relational dynamics led them to be driven by intentionality. For instance, B regularly met in four directed spaces, each of which was bound to a different, but always a specific topic. First, B had daily update meetings, which we joined once as a silent observer, with the purpose of "*updat[ing] everyone on what people are doing"* (Bob). In the meeting, all participants spoke about what they had done the day before and what they would work on that day. Second, Bob explained, "*as progress motivates us all, we measure our progress every Wednesday in the*

sprint planning." In these weekly meetings, the team reflected on the past week and discussed a plan for moving forward. Third, on a (bi-)weekly schedule, the two cofounders set aside time for internal feedback—to openly discuss issues within and develop their entrepreneurial team. Bob mentioned that these spaces are only to "*criticize each other. We do not consider the world outside of the venture, but it is only about the two of us (…). [In these meetings, we say] we noticed this or that and we see that this was a pain in the neck, or we would like to improve this".* Last, whenever necessary, the two cofounders also met for strategic meetings, in which they discussed any feedback they got from external stakeholders, and determined the appropriate way forward, as Ben explained:

> *We sat down for 30 minutes to talk about what our direction is. So, we're still figuring out who our customers are and how…, so basically our strategy. We do this once (…) every two, three days.*

Because these spaces were bound to specific topics, following the expedient relational dynamics and thus the aim to remain intentional and goal-oriented in their interactions, entrepreneurial teams tended to defer them as soon as they threatened to go off-topic. For instance, Bob mentioned that they paused meetings, like they did in the weekly sprint planning when one employee mentioned a strategic issue that was not related to the following week's sprint:

> *Then we had to pause the meeting and explain to him that he cannot do that, that he cannot start such a critical new topic [in this meeting].*

A, C, and D coordinated their work in a similar manner. D tended to only meet for coordinative purposes when they blocked time slots in their team calendar, such as for their weekly sprint planning, as David mentioned, *"we have weekly meetings (…), so on Monday evening, we coordinate a broad road map."* He further emphasized that *"there are no discussions simply to have a discussion. Instead, we are very pragmatic."* Hence, D kept meetings to a minimum and did not set aside time for non-topic related interactions, which also points to their expedient relational dynamics and the aim of remaining intentional in their

interactions. Similarly, the cofounders of A updated one another every weekend in a phone call and they held in-person sprint planning meetings approximately every five weeks. As soon as someone changed the topic in such directed spaces, Amy explained that she tries to "*stop such [off-topic] discussions in the first second. So, I say that this has nothing to do with our topic and we don't need this at the table right now*." In C, a team that also only met in directed spaces, the cofounders even wore noise cancelling headphones to prevent them from joining discussions not related to their roles and responsibilities:

> *We bought ourselves noise-cancelling headphones, just to create a tunnel. You would naturally listen [to the others discussing], even if a topic does not affect you directly, [and I don't want to join a discussion that doesn't affect me].* (Charlie)

Overall, these four teams met in directed spaces with the aim to achieve coordination in a structured manner. Because entrepreneurial teams were likely to connect these spaces to specific topics, the cofounders knew what to expect, which allowed them to join the directed spaces prepared and, in line with their expedient relational dynamics, enabled intentional interactions that advanced the venture in a professional and structured manner.

E, F, and G—the three teams with organic relational dynamics—also met in such directed spaces. Similar to the teams above, these teams drew on directed spaces to support structured coordination and advance their venture, such as by implementing sprint planning meetings, update meetings, or internal feedback meetings. However, in line with their organic relational dynamics, E, F, and G often created their directed spaces in a more spontaneous manner than did the teams with expedient relational dynamics. For instance, Ellie explained that they got together in a directed space whenever they considered it to be necessary: "*When we have the feeling that it is going to be a bigger decision, well, then we organize strategy meetings*". Fletcher also explained that they implemented a routine of meetings to bring all cofounders up to date, however, missed out on these meetings if they did not feel the necessity to talk:

> *"We try to have one weekly [online call] but the problem is, sometimes, we are busy [with the venture], so we don't have time [for the online call]. Because […] everyone is updated when they follow the [the chat platform] anyways, so sometimes you don't have a reason to [have an online call]. But mostly, we try to do weekly [calls]."*

G, for example, mentioned how they figured that it was finally time to separate roles and responsibilities, and thus decided to do so by creating a directed space, *"We took the whole day a month ago and met here, locked ourselves in, and used whiteboards to discuss the exact allocation of roles"* (Gregor). Overall, these spaces are directed spaces, because they are bound to specific topics. Yet, on top of the creation of directed spaces for achieving coordination, the three entrepreneurial teams with organic relational dynamics that pivoted their venture idea additionally created undirected spaces.

Undirected spaces. E, F, and G tended to leverage the possibility of spontaneous interactions by enacting their organic relational dynamics through the implementation of undirected spaces. The teams created these spaces in a way that they did not know what was to come in that space. Hence, undirected spaces are unbound to topics. Cofounders were likely to come together in the undirected space and discuss the venture, but they did not have a specific and desired aim of the space in mind. Instead, the cofounders used the time to address any topics that affected the venture and that they wanted to speak about. The entrepreneurial teams either formally implemented these spaces or made room for them to arise spontaneously. For example, E formally created an undirected space by including a blank presentation slide at the end of their weekly meeting (i.e., a directed space). When the slide came up, the cofounders could "*address topics that are dear to our hearts"* (Ellie). Ellie went on by explaining that the entrepreneurial team could address any "*critical topics"* in that time. Hence, instead of deferring a discussion that did not fit the topic of a directed space, as the teams with expedient relational dynamics were likely to do, these teams were rather to incorporate an undirected space into their directed space to actively make room for off-topic discussions. Besides planning for undirected spaces, E also allowed them to arise in an

informal manner, as the cofounders could address any occurrences spontaneously. For instance, in contrast to C who wore noise-cancelling headphones to block out conversations by their cofounders, Ethan mentioned that all cofounders even tended to follow his calls:

> *We communicate strongly and always keep talking a lot (…). Funnily enough, because we sit in one office, both of them are really good [in following with one ear] when I have long calls. Then, directly after a call, I have to tell them exactly what happened.*

When asked why he preferred to communicate spontaneously instead of waiting until a team meeting, Ethan mentioned how it just felt natural, which also points towards the team's underlying organic relational dynamics:

> *[Immediately telling my cofounders what happened] just has this natural component. I just want to tell them what I did, or if I learned something new. It's just natural. It is like telling your partner or family what happened during work.*

Similarly, F also created undirected spaces when the team met in the office, as Finn explained:

> T*he normal day is that we either meet here (…), mostly not too early as you would expect, like many other start-ups, (…), rather we meet at 10 and normally, we sit down together and then we talk a lot. We talk about all kinds of topics, a lot of brainstorming. This is probably also a bit of a weakness; we always generate a lot of ideas and drift off during these meetings."*

Regarding these brainstorming discussions in the office, Fletcher mentioned that they rather felt as if the team had a discussion with best friends. He thus emphasized how these discussions are organically driven by the relational dynamics in the team, "*We just talk for hours and hours. It somehow feels like I'm productive, but at the same time, I think this is rather what you would do with your best friends."* While Fletcher said that to him, the discussions felt somewhat productive, the third cofounder, Felix, explained that this undirected space for discussing felt unproductive and that he would have preferred to implement more structure. However, the team stuck to the routine of setting aside time to discuss and brainstorm whatever was on their mind. G also met in informal undirected spaces. This team stressed the spontaneous nature of these spaces:

> *We don't have to meet regularly; We simply sit beside one another. I find this really important to discuss any ideas. So, I would say, new product ideas, they are really ad-hoc. We have those spontaneously, but for all the development meetings, we have sprints. We have a sprint meeting every two weeks.* (Gregor)

Overall, in addition to directed spaces, the teams that pivoted their venture idea created the possibility of meeting in undirected spaces, which are unbound to specific topics and enable cofounders to start unplanned and spontaneous discussions on any topic regarding the venture and the team. Hence, their organic relational dynamics allowed for a wider array of possibilities for coordinating their work, whereas expedient relational dynamics tended to restrict cofounders' coordination practices to planned interactions.

2.4.4 Narratives and the development of the venture idea

Following the relational dynamics underlying the interactions in the entrepreneurial teams and thus the spaces implemented for coordination, the entrepreneurial teams took different approaches in further developing their venture ideas. In entrepreneurship research, the process of idea development is driven by stories (Garud & Giuliani, 2013; Venkataraman et al., 2013), as "the stories people tell" help cofounders reflect on their venture idea and develop a plan for the way forward (Gartner, 2007, p. 615). In prior research, these stories are referred to as narratives and are commonly seen as an important component of the sense-making process (Brown et al., 2008) that can support both perseverance and change in organizations (Vaara et al., 2016). Consistent with the idea that sharing stories around the venture idea is a deeply relational process (Garud & Giuliani, 2013), we observed that particularly in entrepreneurial teams such stories seem to be a critical component of idea development.

In the present study, the entrepreneurial teams used directed and undirected spaces to discuss the venture idea and its individual components among the cofounders. In both types of spaces, the cofounders shared their stories of the venture idea with one another with the aim to advance it. Empirically, the stories each of the cofounders shared became evident in the

interviews, in which we observed differences between the stories the cofounders of teams with expedient relational dynamics and the cofounders of teams with organic relational dynamics told. Cofounders in teams with expedient relational dynamics and only directed spaces tended to tell us compartmentalized stories, which enabled the teams to synchronize and combine their pieces of the venture idea. They emerged to persevere with their venture idea. In contrast, cofounders of teams with organic relational dynamics, who met in directed and undirected spaces, expressed more holistic narratives around the venture idea. With their holistic narrative, they were able to develop diverging ideas, and ultimately engaged in pivoting.

Compartmentalized stories, idea combination, and persevering. As the cofounders in teams with expedient relational dynamics were more likely to only be asked to address, discuss, and contribute their own work to directed spaces, they rather considered their compartment of the venture idea. Hence, they tended to develop compartmentalized narratives—stories that mainly revolve around their own work in the venture—which influenced how an entrepreneurial team developed their venture idea. Empirically, cofounders' compartmentalized narratives became prevalent in (1) how they reflected on their venture idea, (2) thought about the feedback they received, and (3) lacked insights into the work and progress of their cofounders' work. First, when cofounders reflected on exciting or difficult moments in the venture during the interview, they tended to share stories about their own work. For instance, Dominic, who is responsible for the design of a mobile application explained when he felt proudest:

> *We now finished the concept for our mobile application. We have the mobile application, so for my part, I designed it, and now I'm done. For me that was the biggest step, we are not in kindergarten anymore.*

Or Ben, who is responsible for business development and the acquisition of customers, mentioned troubles on his part when reflecting on his most difficult moments, "*Previously, we*

had 20 customers signing up [to our platform] every day. Now, on average, we have 10 customers per day signing up, so that has to go up again". Overall, the cofounders tended to emphasize the excitement or challenges stemming from their own work rather than from the venture as a whole in the interviews.

Second, cofounders considered how feedback affected their own work and not how it affected the entire venture. For instance, C pitched their venture to a multinational company. After the pitch, Charlie predominantly reflected on the feedback they received regarding software development, which is his responsibility:

> *[The multinational company] thought it was good and it took off rather quickly. At least for my feeling, from the side of software development, we promised them so much that we don't have yet. And now, of course, they want to see improvements, but if you don't have anything of what you initially showed them, then you are really far behind. That is a bit nerve-racking at the moment, because now they want something new, but actually, you are still struggling to get up and running properly what you showed them.*

David, who focused on the business development of D, spoke to external stakeholders to collect thoughts on the necessary next steps in developing a product for a medical application. He mentioned, "*If I now tell [my cofounders] that I want a pre-series [of the product] by the end of the year so that we can start a clinical trial, then I really don't care how often they have to iterate, how they do it, what appointments they have, as long as I have the pre-series by the end of the year."* After deciding on how to convert the feedback he received, David directed it to his cofounders without getting involved in how the product and service were implemented. He argued that the implementation was not within the scope of his responsibilities. Hence, due to the specialization of roles and responsibilities, cofounders mainly retrieved feedback that was relevant for their own work. They seemed to prefer to have less insights into the concrete developments of their cofounders' work.

Third, cofounders tended to actively distance themselves from their teammates' work, as they felt that getting involved in all topics interfered with their productivity, which Aaron

illustratively mentioned, "*She does all the things [business development] around me, and I somehow remain the geek. I told her that I could of course give her input, but I would much rather invest my time into things I am good at, which is developing the training concept, writing progressions, building feedback systems, and so on."* While most cofounders did not seem to know in detail what the others were pursuing, D even had the role of the devil's advocate. The cofounders described this role as particularly helpful in advancing the venture idea, as David mentioned, "*The two of them are really into gamification and such by now. And I see myself as an objective outsider, who has no idea of the research underlying the topic. And of course, well, we also keep this on purpose. Because I am the Advocatus Diaboli, who challenges everything and says, I don't like this, this is not good."* Summing up, the entrepreneurial teams seemed to consider the strong specialization of cofounders' roles and responsibilities, which included a lack of insight into others' work, as particularly professional and efficient for advancing the venture.

Integrating insights on the compartmentalized narrative of the venture and the notion of directed spaces, we observed that cofounders drew on directed spaces to combine their individual compartments of the initially agreed upon venture idea. More specifically, the teams with compartmentalized narratives seemed to meet in directed spaces to exchange insights and developments from their own work and synchronize these, that is, cofounders discussed how their individual work fit together into the agreed upon common framework of the venture idea. To achieve synchronization, they sometimes considered implementing minor refinements and adjustments. The cofounders then seemed to leave the spaces knowing what their next steps for the advancement of the venture idea were, as for instance, Dominic summarized:

> *We are developing the design of the mobile application parallel to the development of the concept. Normally, someone would tell you what job they want you [as the designer] to do: a table or a chair. (...) But we don't know if we are building a table or a chair. So, you end up designing in parallel, you do all the developmental work in*

> *parallel. That means that oftentimes, your designs are trashed. But of course, you can also always adapt them. (…) Our product as such stays the same, though. (…) In the end, it is only about the details of the mobile application that accompanies the product.*

Similarly, B had a meeting with potential investors when they sought for funding for the venture. In that meeting, the team received critical feedback, as Bob mentioned, *"A few weeks ago, Ben and I met with an investor, who had also invited two experts. And the two experts, I would almost say, they hated our product. (…) Of course, on the one hand, it was a pitch presentation, but on the other hand, it was also incredibly important for the development of the strategy. Maybe the experts know more?".* To process the meeting, Bob and Ben met in a directed space with the aim of finding answers to the questions the experts posed. However, even though past research argues such feedback to be a trigger for pivoting (Grimes, 2018), the team only discussed potential solutions and next steps for the business division because the feedback was directed to the business-side of the venture. Hence, they did not refine their venture idea:

> *We talked about the meeting in every detail, especially about the two experts. The two of us, we discussed for one or two hours. Why was this the case? What is it that they said? So, in this discussion, it was not about whether or not the investor will invest. Rather it was about the concrete critiques, content-wise, [and we asked ourselves] where does this fit in? Is there something that we are judging incorrectly? And what consequences does this have for us? And the biggest consequence is that we now know that we need answers to all the experts' questions. And to answer questions regarding the risk of our venture, we did a little bit of market research that is reliable.*

Summing up, A, B, C, and D persevered with their original venture idea and only made minor refinements if necessary. The cofounders seemed to remain within their own roles and responsibilities to continuously advance their piece of the venture idea. In directed spaces, the cofounders then discussed specific topics of interest, which enabled them to make minor refinements or adjustments. These refinements seemed to affect individual features or attributes but did not affect the product, the technology, or the market as a whole. Over time, the teams were likely to repeat the process of further developing their venture in directed

spaces. For instance, C had weekly sprint meetings in which they discussed and wrote down the tasks for the following weeks. Charlie explained how they continued developing the venture in the periods between the directed spaces:

> *We have a task-tracking-system and if Christian adds 20 issues and then sets the milestone to Friday. Well then yes, works great that milestone-system (irony in voice). But overall, it is only a list of to-dos and the to-dos are worked on according to their priority. [If we don't make it], they are pushed to the next milestone and well, that's often the case—that way the list always gets a bit longer.*

Holistic stories, idea modularization, and pivoting. In addition to using directed spaces for coordination, entrepreneurial teams with organic relational dynamics met in undirected spaces. As the cofounders had the possibility of addressing, discussing, and contributing to any topics in these undirected spaces, they were more likely to consider the holistic venture idea. Hence, contrary to teams with expedient relational dynamics, cofounders in teams with organic relational dynamics tended to develop a holistic narrative of their venture, that is, stories that revolve around the venture idea in its entirety. Empirically the holistic narrative became evident in how the cofounders of E, F, and G told stories that overlapped in their contents in the interviews, and more specifically in how cofounders (1) individually reflected on the venture idea, (2) individually thought about feedback regarding the venture idea, and (3) possibly told diverging stories of the venture idea in the interviews, which allowed multiple narratives of the venture idea to coexist.

First, when asked to reflect on the positive and difficult sides of founding a venture, the cofounders considered the overall venture idea and not only their own work. For instance, Edward, who is mainly responsible for the development of the technology particularly enjoyed seeing how people were interested in spending money on the venture's products:

> *When I think about who we are getting in touch with around the world, I get really excited. As an academic, you would go to conferences, and we too go on conferences, but with the key difference that we are doing something that someone can buy, and now we have a company, and people are actually really buying it. It is really cool to see that people are paying money for this, they are actually ready to invest something.*

Similarly, Felix mentioned that he found it difficult to keep an overview of the venture even though he is only responsible for the development of the product:

> *I struggle with keeping an overview [of the venture] (…), you try to monitor everything, and, in the end, everything is also up to you.*

Hence, the cofounders described that they felt as though they were carrying the responsibility for the difficulties and successes in the venture as an entrepreneurial team and not only for their individual work.

Second and in line with the cofounders reflecting on the venture at a more holistic level, the cofounders also thought about how feedback affected the venture as a whole. For instance, Ethan, who is responsible for the finances and business-side of E, also mentioned that he felt responsible for collecting feedback on other aspects of the venture. However, because he is not skilled to cover the technical side of the venture, he explained that he thoroughly prepared for collecting feedback and subsequently weighed the insights against what he considered the team could accomplish:

> *It became more and more apparent that I am the one collecting feedback. So, if we somehow think that we could be on to something, then we follow up on that. And most of the time that is me, also with Ellie, but I am in the lead. So, I start by reading a lot of journal articles. And then I look for the right people to talk to, the experts in that area. Then I create a catalogue of questions and I go through that catalogue with them, question by question. Then, you start getting a feeling for whether they are interested or not. And of course, in our case, you have to really also think about whether or not we can do that technologically. So, what do [the experts] expect from the technology and see if that fits together [with our competencies].*

G received detrimental feedback regarding the venture idea by potential investors, similar to the feedback that B had received (see quote on p. 44). However, as the cofounders of G thought more holistically about the venture, they felt that the whole venture idea was threatened rather than only extracting the feedback that was relevant to themselves:

> *In that case, Gregor was a lot more unsure than I was, so right after the conversation [with the potential investors], he was unsure whether we can continue with the VCs and I rather thought, "it was only one person saying it, the others are probably not like that". So, you could really feel extreme tension about the core of our venture idea,*

> *definitely. These tensions did not affect us on a personal level, but they were there and they affected the future of our idea. And for that, you have to find a solution, a way forward. (Gabriel)*

By considering the feedback more broadly, the cofounders in the entrepreneurial teams seemed to bridge their work and view their own work in relation to the bigger venture idea. In doing so, the cofounders responsible for product development started considering how novel products might be perceived on the market, or cofounders responsible for business development took the technical boundaries of products into account.

Third, as the cofounders bridged the boundaries between their roles and responsibilities in their reflections of the venture idea, they sometimes developed diverging stories of their venture idea. Particularly, as the cofounders in an entrepreneurial team personally reflected on the feedback they received, they identified differing possibilities for its conversion and implementation into the venture idea. Hence, in these entrepreneurial teams, multiple holistic stories were able to coexist simultaneously. For instance, E toured a laboratory, in which they were made aware of an issue that was related to their venture idea. While Ellie emphasized her hesitance to act upon the feedback in the interview, as she mentioned, *"we can't do everything, or else we would completely lose our focus. We will put that project in a drawer and do something else",* her cofounder saw its great potential but rather expressed initial concerns about changing the customer segment: *"Then again we realized, it is exactly as we thought, that we would need to switch to selling our product to the producers of reactors and that is not so easy, because they take their time. For them, three years is not long, but for us, three years would mean our death. It is not looking good."* (Ethan). Yet, Edward even started considering how they could expand the product to make the offering more attractive:

> *For example, the thing with the bioreactor, we prioritized that a bit. And I am also investing quite some time into the simulation thing, because diagnosing is another interesting point and is also an option that stems from the whole project. The others don't see this as clearly yet, because maybe they are not so much into the technical*

> *details and maybe, they are not so, let's say, enthusiastic or interested in it as I am, because it is not as handy and as simple of a product that you can touch and with which you can do something.*

Hence, all three cofounders developed differing narratives as they reflected on how to react to the feedback. Similarly, F, who initially agreed on the idea of "*recording people and giving them feedback regarding their style of communication to ultimately create training programs and to say, ok, if you want to practice different situations, then we have something that makes it interactive and measurable"* (Felix) and thus aimed to develop a software for training and coaching purposes, received feedback that recruiters were also interested in using the software. While Finn still stuck to wanting to prioritize the training and coaching market, *"My argumentation was, yes, [but the recruiting] market is more complicated, more crowded, and more difficult with regard to data protection. And for coaching, there is no comparable solution until now. And the market is big enough, because we don't want to be greedy, we just want to survive and yes, maybe we can also access it faster"*, Felix considered how to make the product attractive to both types of markets simultaneously, as he explained:

> *We could say that we create a training program, for example, for emotional intelligence, that is what the companies seem to want. And that is somehow overlapping. Because some say, we want it for recruiting, because the recruiter should develop more empathy for the candidate when the candidate is on-site. And the other company says, great, we need this for sales, our salespeople are not empathetic enough. They should be able to cater more to the customers on an emotional level. And then actually, you have both. So, in both cases, it would be about emotional intelligence, but in different contexts. But theoretically, you could create the program in a way that it works for both.*

Thereby, the entrepreneurial teams tended to use undirected spaces to address their individual reflections of the feedback. For instance, Ethan explained how they leveraged the possibility of spontaneously creating an undirected space, as he figured that the feedback might affect the venture on a holistic level:

> *You sit together [in the shared office], and then by coincidence we started talking and I said: Somehow, this does not make sense anymore, we have to go in another direction. And then you start thinking about it, yes why, yes, this would make sense.*

> *Ok, what does that mean? Ok, so actually, we would have to kill the other projects to really focus on this. Yes, and then after some time you get together in a meeting (…). You get a whiteboard and determine the next steps, structure how to move forward, what has to be done.*

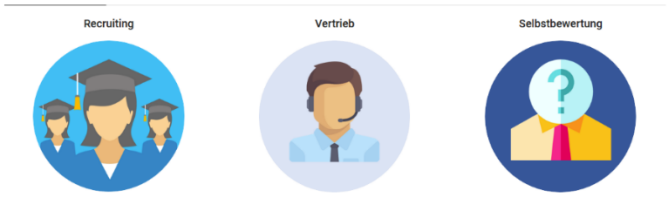
Similarly, Gregor mentioned that he and his cofounder spontaneously spoke about creatively revising the venture idea:

> *We made this really ad-hoc decision. We said, "What if it were like this and that?", "Ok, let's just try it." And really, the first version of the product was really simple, but at least it worked. And then we spoke to a few people and the feedback was, well, on the one hand it was super good and on the other hand, it was like "Huh? We already have that."*

To ultimately revise their venture idea, E, F and G broke up the idea into modules. Particularly, as the entrepreneurial teams realized that their holistic narratives only diverged in some components, they started to consider the market component and the product component including its technology separately. Instead of immediately changing both modules at once, the teams decided to only adjust one module at a time and to test modules in parallel. Then, as one module started to dominate the other(s), the entrepreneurial teams shifted their resources to focus on a revised venture idea. For instance, over the course of the study, F considered two different markets—the recruiting and the training and coaching market—for the same product. While F initially mentioned that they "*want to help people to become more self-confident and less anxious in job-interviews and other situations, where you have to present yourself*" (job advertisement, May 2018) in their job advertisements, they soon started considered pursuing a parallelization and adding the recruiting market. Finn mentioned in the interview that they were unsure about whether they had the capacity to parallelize:

> *We discussed [the parallelization] a lot, but never said: [This market is] it. Rather, we just said, ok, we have a tendency towards this and we will shift our resources depending on the demand. And so now, our first pilot projects are rather in this direction [sales training and personal coaching], we have another one with an airline company that is more in the area of recruiting. We won't quit [recruiting], because if we have the request, why not. But the focus of our platform lies more on coaching, I would say.*

Once the entrepreneurial team decided to parallelize the module of their venture idea, they changed their display on their website to show these parallel markets[4]:



Notes: Markets listed from left to right: Recruiting, sales training and personal coaching; Screenshot taken on 30th July 2018

Over time, as the recruiting market started to dominate, F shifted all their resources to focus only on the more recent recruiting market. This shift became evident, as the entrepreneurial team addressed solely recruiters on their website and communicated their sole market in job advertisements, in which they mentioned, *"[Our] motivation is to decipher human personality traits and communication behavior to help companies identify talent more efficiently and develop it better further*" (job advertisement, August 2019). Similarly, G too shifted their resources over the course of the study. While they stuck to their original market, they changed their product from aiming to optimize team matching to analyzing the team climate and suggesting areas for improvement. After further feedback, G pivoted once again following the same process. They kept the module of the market stable but pivoted towards a new product to facilitate information-sharing among employees in companies.

Notes: Display of G's sole novel product on their website; Screenshot taken on July 27th 2021

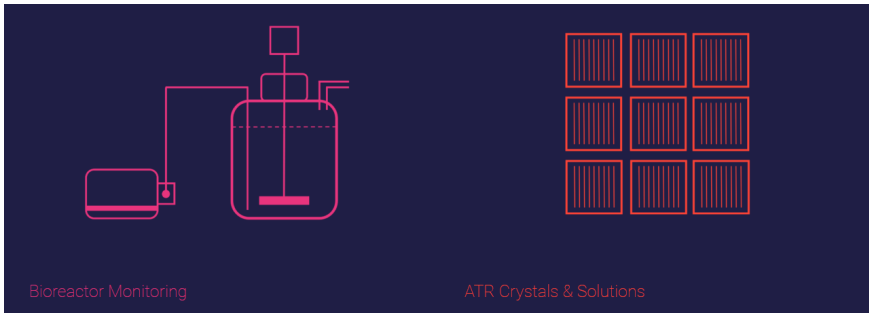
The third venture that pivoted, E, saw some potential in keeping the market stable, but addressing it with a different product. However, because the initial product was already

[4] F perceived the training and coaching market to overlap, because in both cases, the software gives direct feedback. They saw the recruiting market as detached, as in this case, the software analyzes the fit of potential candidates.

developed and ready for commercialization, they did not immediately terminate it, as Ethan mentioned above, and rather decided to develop the novel product in parallel to selling the first product (and an extension to it), as Ellie explained:

> *We are following a three-step market entry process. So on the one hand, we have the [chips] for the spectroscopy application that we are selling as of September. (…) And then in the next step, in principle, we have this cooperation with a multinational company, where we can put 24 of those chips on a single plate and analyze those in an automated manner (…). Yes, and now as a third step, we want to build the new device. We are still doing the technological development of that.*

Once E decided that the novel product was more attractive, they dedicated most of their capacity towards developing it, but still kept their initial product as they already had customers. This parallelization became evident as they displayed both applications on their website, which they went on to pursue in the following year:



Notes: Display of the two products for the same market; Screenshot taken on 1st September 2020

Summing up, while E pivoted towards pursuing parallel modules, F and G pivoted completely to pursue only the revised, dominant venture idea. F identified the recruiting market to be more attractive, but initially stuck to their product. G stuck to their market but developed a novel product to address it. Overall, with their pivots, E, F and G did not start their venture idea from scratch, but continuously built on their existing venture idea by sequentially replacing modules.

Although all three teams pivoted their venture idea over the course of the study, like the four teams that persevered, E, F, and G also used regular directed spaces to synchronize their work. The cofounders explained that they met in directed spaces to advance the venture

idea. For instance, E explained how they organized strategy meetings—directed spaces—to synchronize their work. Hence, when they received the request to broaden their product to enable the spectroscopy of several chips at a time—feedback that did not threaten their venture idea as a whole—the team created a directed space to agree on how to move forward:

> *For us, the real decision, so that we say that we will do it exactly like this, for that, we usually have a meeting, so we sit down together, get a whiteboard and write everything down. That is when we really create a roadmap, milestones [for each one of us]. (Ellie)*

Felix mentioned how the entrepreneurial team collected feedback of multiple potential pilot customers to learn about desired product features. They then met in directed spaces to reflect on the feedback:

> *We received a bit of feedback and the requirements that the companies had were almost identical. And so, the next goal is actually that we prepare a proposal that says, "ok, these are our ideas based on your input." (...) Maybe [the companies] then have minor requests for refinements, and we can do that, but theoretically, we could also bring it to someone else.*

Similarly, Gregor explained how he sat down with his cofounder to discuss the feedback they received and think of ways to implement it into the venture idea:

> *And then we decided to sit down and think about the feedback. In general, it was good that we received such feedback. It wasn't only positive. The team leader said that the greatest benefit of the tool for him is that the employees were forced to reflect [on the questions]. But he said that he doesn't care about the outcome of their reflections. To him, it is only important that they think about the questions. And so, we thought about branding our product differently, branding this first product rather as a companion at work.*

Hence, the teams that pivoted their venture idea also tended to use directed spaces to synchronize their work and develop a way forward for their venture. However, in addition to this structured and professionalized way of coordinating their work in directed spaces, the teams with organic relational dynamics leveraged their spontaneity and created undirected

spaces for the cofounders to share their holistic stories of the venture idea. These undirected spaces supported them to open themselves up towards the possibility of pivoting.[5]

2.5 Discussion

This research documents how entrepreneurial teams engage in a pivoting process of their venture idea. We find that the interplay of relational dynamics and spaces enable the creation of differing narratives in the entrepreneurial team, which ultimately shape an entrepreneurial team's ability of pivoting. Our emergent model reveals the processes of how teams engage in pivoting or how they persevere with their venture idea. With this study, we contribute to the literatures on pivoting in entrepreneurship, entrepreneurial teams, and more generally to the literature on spaces.

2.5.1 Implications for research on pivoting in entrepreneurship

Our findings contribute to the literature on entrepreneurial pivoting by including a team-level perspective. Existing research on pivoting has mainly taken an individual-level or venture-focused perspective of pivoting, as it outlines how founders achieve pivots (Berends et al., 2021; Grimes, 2018; Kirtley & O'Mahony, in press), how ventures manage and communicate pivots to external stakeholders (Hampel et al., 2020; McDonald & Gao, 2019), and the importance of pivots in finding an optimal business model (Brown & Eisenhardt, 1997; McDonald & Eisenhardt, 2020). Despite the importance of entrepreneurial teams in the process of founding ventures (Perry-Smith & Coff, 2011; Preller et al., 2020), prior research has focused less on studying the structures and processes enabling entrepreneurial teams to pivot their venture idea. The findings of the present study address this gap, by introducing teams as agents driving the pivot. We illustrate how, by leveraging the novelty and thus lack of familiarity and routines in entrepreneurial teams (Blatt, 2009), entrepreneurial teams can

[5] Additional evidence of all themes is presented in Appendix 2.

engage in pivoting. Specifically, organic relational dynamics create the opening for undirected spaces to emerge. These undirected spaces then provide room for cofounders to address diverging holistic narratives. In sharing and discussing their holistic narratives, entrepreneurial teams can modularize the venture idea and ultimately pivot.

Next, we contribute to a more nuanced understanding of collective sense-making in entrepreneurial pivoting. While prior work suggests that a founder's conversations with peers and fellow founders help them to convert feedback (Grimes, 2018) and those with external stakeholders allow the venture to (re-)establish legitimacy (McDonald & Gao, 2019), it is less clear how conversations within the entrepreneurial team shape the team's ability to engage in a pivot. In addition, even though the use of narratives is considered as relevant in advancing the venture idea (Gartner, 2007; Garud & Giuliani, 2013; Venkataraman et al., 2013), research on its role in teamwork is scarce. With the present study, we find that cofounders develop narratives to individually make sense of the venture and subsequently use these narratives to advance their venture in spaces. Thereby, cofounders can develop two different types of narratives to help them make sense of their venture: holistic narratives that focus on the venture idea in its entirety and compartmentalized narratives, in which the founders mainly consider their personal work. Our findings indicate that holistic narratives are important to enable pivoting, because multiple possibly diverging holistic narratives can coexist in entrepreneurial teams. In conversations, these narratives can induce a creative revision of the venture idea by pushing the cofounders to question the status quo. On the contrary, when cofounders have compartmentalized narratives, idea development seems to be more rigid, as cofounders mainly engage in sense-making to fit feedback into the existing framework of the venture idea.

Further, we inform research on the process perspective of pivoting (Berends et al., 2021; Kirtley & O'Mahony, in press). In this stream of literature, pivots are seen as the sum

of several incremental changes, resulting from a series of additions and exits to the venture idea (Kirtley & O'Mahony, in press), which lead to a revised timeline of advancing the venture goal (Berends et al., 2021). However, it remains unclear *how* these incremental decisions are made (Kirtley & O'Mahony, in press). With our study, we show that the entrepreneurial teams modularize their venture idea and continuously build on it by only tweaking one module (e.g., the market or the product and its technology) at a time. In particular, the teams hold the less criticized module of the venture idea constant and do not question its status quo. Hence, the entrepreneurial teams do not start from scratch when considering a pivot, but rather build on their existing venture idea. This finding provides empirical support to not viewing a pivot as an immediate creative revision, but supports the process perspective of pivots (Berends et al., 2021; Kirtley & O'Mahony, in press).

2.5.2 Implications for research on entrepreneurial teams

Second, our study contributes to the literature on entrepreneurial teams. Past research argues that professional structures in entrepreneurial teams—a clear distribution of roles and responsibilities (Jung et al., 2017; Sine et al., 2006), authority in decision-making (Talaulicar et al., 2005), specialization of cofounders (Sine et al., 2006)—are beneficial for founding successful ventures. Our study challenges this assumption. We argue that particularly in the early stages of venture development, in which entrepreneurial teams and their venture ideas often remain dynamic to optimize the team (Lazar et al., 2020) and the venture idea (Andries et al., 2013; McDonald & Eisenhardt, 2020), professional structures might inhibit a team's ability to pivot the venture idea although pivoting is likely a necessary step to improve the venture idea (Andries et al., 2013; McDonald & Eisenhardt, 2020). We find that even though directed spaces are important to advance the venture idea, allowing for interactions in undirected spaces is critical in enabling the team to engage in pivoting. Hence, implementing only professionalized routines and structures in the early stages of venture development

possibly comes at the cost of losing flexibility in considering alternatives of the venture idea. However, future research could explore how implementing professionalized structures shapes venture development over time. Once the entrepreneurial teams have developed a more stable venture idea, professional structures might gain importance and the benefits of undirected spaces might decrease.

Moreover, we contribute to the literature on entrepreneurial teams by introducing the notion of relational dynamics as "patterns of interaction" in entrepreneurial teams, which drive how entrepreneurial teams work (Lee et al., 2020, p. 96). Past research highlights different team interactions, such as positive and negative team interaction spirals (Breugst et al., 2015), intimate interactions (Rouse, 2020), and describes how entrepreneurial teams might follow "clear routines in their team interactions" (Preller et al., 2020, p. 19). These studies mainly focus on entrepreneurial teams' interactions in a specific context, such as how they are necessary for creativity (Rouse, 2020), or are triggered by perceptions of the equity distribution (Breugst et al., 2015). Yet, they lack insights into the entrepreneurial team's underlying *patterns* of interaction that drive teamwork. With the present study, we shed light on how entrepreneurial teams develop relational dynamics that represent the basis of how cofounders work together. We specifically link these relational dynamics to an entrepreneurial team's ability to engage in a pivoting process. However, future research could focus on providing a broader picture of how these relational dynamics also shape other processes in entrepreneurial teams, such as how relational dynamics help entrepreneurial teams cope with challenges.

We also inform the literature on organizing in entrepreneurial teams (Jung et al., 2017; Reese et al., in press; Sine et al., 2006; Talaulicar et al., 2005). While past research has studied how entrepreneurial teams separate their roles and responsibilities, which is a highly important step in entrepreneurial teams (Sine et al., 2006), we lack insights into how

entrepreneurial teams can integrate their work to achieve the common goal of realizing the venture. With the present study, we address this gap in the literature, by showing how entrepreneurial teams coordinate their work in spaces to advance or creatively revise their venture idea. In these spaces, the entrepreneurial teams come together to align their work and discuss the venture idea.

2.5.3 Implications for research on spaces

Finally, we offer a more general contribution to research on spaces (Bucher & Langley, 2016; Kellogg, 2009; Lee et al., 2020) by integrating the literature on team creativity (e.g., Harrison & Rouse, 2014; Unsworth & Clegg, 2010; Vera & Crossan, 2005). To enable creativity and achieve a creative outcome, studies emphasize the importance of a lack of structure in coordinating activities (e.g., Harrison & Rouse, 2014; Vera & Crossan, 2005). In particular, team members of creative teams have greater freedom and can "act individually, and, in so doing, violate group boundaries and introduce ideas that disrupt a sense of predictability and common understanding" (Harrison & Rouse, 2014, p. 1257). Similarly, theory on creative dyads suggests the importance of making room for the free exchange of ideas without the dyad feeling pressured to take on particular roles and responsibilities (Rouse, 2020). However, enabling such freedom while simultaneously maintaining professional structures and routines to ensure the advancement of an organizational goal seems to be challenging, as past studies have often focused on studying creativity in other contexts, such as improvisational theatre (Vera & Crossan, 2005) or dance groups (Harrison & Rouse, 2014). In the present study, we argue that teams in professional organizations can create undirected spaces, in which they temporarily allow for more freedom, autonomy, or improvisation. Within these bounded settings, professional structures and routines are loosened and thus teams might develop the ability to question the status-quo and creatively revise established ideas. Yet, because these spaces remain temporary, they are likely not to

impede the development of the organizational goal. We hope to inspire future research to explore the use of temporary undirected spaces in enabling creative outcomes in more depth.

We also contribute more broadly to the literature on spaces (Bucher & Langley, 2016; Kellogg, 2009; Lee et al., 2020), by exploring potential boundary conditions and observing when spaces might not be drivers of change. Literature on spaces assumes that the desired subject of change is known, because organizations aim to adapt to new and known regulations (Kellogg, 2009), implement new and desired routines (Bucher & Langley, 2016), or develop more positive relational dynamics via pre-defined interaction scripts (Lee et al., 2020). However, as the seminal idea of creative disruption already suggested, organizations might not always know about their necessity to change ex ante. Similarly, entrepreneurial teams might need to act upon unforeseen feedback by substantially altering their venture idea (Grimes, 2018; Kirtley & O'Mahony, in press). While spaces, defined as "bounded social settings characterized by particular types of interaction" (Bucher & Langley, 2016, p. 601), are perceived as drivers of change when the ultimate aim of the change is known and understood, they might also inhibit change when this is not the case. Particularly, this might occur in spaces devoted to a specific topic as its symbolic boundary does not provide the necessary openness for developing and discussing divergent ideas. Such divergent ideas of individuals, however, are necessary to achieve more creative outcomes (Harrison & Rouse, 2014). Hence, in constraining a space by symbolic boundaries, teams might only be able to work towards a pre-specified aim, but they may not be able to revise the venture idea in an unexpected and unspecified way. This finding stands in contrast to the literature that has focused on seeing spaces with defined boundaries as enablers of organizational change.

2.5.4 Limitations and future research

We conducted the present study based on a qualitative study sampling entrepreneurial teams in the knowledge-intensive sector to gain in-depth and detailed insights into how

entrepreneurial teams engage in a pivoting process of their venture idea. However, as is common for multiple case studies (Eisenhardt & Graebner, 2007), our findings are limited in generalizability. While our sample allowed us to study how pivoting unfolds over time, future research can test the proposed interrelationship between entrepreneurial teams' relational dynamics, their created spaces for coordination, and their subsequent narratives and idea development paths in a larger sample.

In addition, we included entrepreneurial teams in the knowledge intensive sector with similar starting conditions in a major European metropolitan area and with clearly distributed roles and responsibilities. We build on research on teamwork in entrepreneurship (e.g., Jung et al., 2017; Sine et al., 2006) and pivoting (e.g., Grimes, 2018) in choosing our sampling. Thus, our homogenous sample allowed us to rule out many alternative explanations for our findings, such as the sector of the venture or particular environmental conditions (e.g., the incubation program) affecting the entrepreneurial teams' likelihood of pivoting. However, entrepreneurial teams active in other sectors or with overlapping roles and responsibilities might engage in pivoting differently, as for instance their overlapping roles and responsibilities possibly call for different coordinative practices. Hence, future research can study pivoting in entrepreneurial teams in other contexts, or in entrepreneurial teams that are organized differently to shed light on whether our framework still applies. Studying these entrepreneurial teams and pivots might provide more nuanced insights into both teamwork and pivoting.

2.6 Conclusion

This paper presents a process model of how entrepreneurial teams are able to pivot their venture idea by emphasizing the interrelationship between relational dynamics and spaces. We illustrate how expedient relational dynamics enable planned interactions in directed spaces, while organic relational dynamics allow for the creation of both directed and

undirected spaces. We then show how cofounders develop differing narratives based on the interrelationship between their relational dynamics and ways of coordination in spaces. These narratives impact how they consider the advancement of their venture idea. With our study, we hope to inspire future research to take a team-level perspective of pivoting.

3 STUDY II:

EQUITY OWNERSHIP AND A FOUNDER'S IDENTIFICATION WITH THE ENTREPRENEURIAL TEAM[6][7]

Abstract: Following an economic approach, prior research has connected higher levels of venture ownership to positive outcomes for founders. Building on psychological ownership theory, we argue that owning more equity can have opposing effects on founders' subsequent identification with the entrepreneurial team by triggering feelings of responsibility and care for the venture, but also possessiveness and territoriality. In addition, we suggest that founders' perceptions of team performance accentuate this curvilinear relationship. Longitudinal data including 156 data points from 82 founders support our theorizing. We discuss implications for the literatures on equity ownership, entrepreneurial teams, and psychological ownership.

[6] This study is coauthored by Nicola Breugst, Holger Patzelt, and Rieke Dibbern. Rieke Dibbern worked on a previous version of this paper for her dissertation. Since then, I substantially altered all variables of interest, which leaves only the general idea of studying equity in entrepreneurial teams behind. Nicola Breugst and Holger Patzelt provided the data, continuously gave feedback, reviewed the study, and guided me through a revision process. Given that the paper is coauthored, I will refer to "we" rather than "I" throughout Study II.

[7] Earlier versions of this paper were accepted and discussed at the Doctoral Consortium of the ENT Division at the Academy of Management Annual Meeting (2019) and at the BCERC Doctoral Consortium (2020).

3.1 Introduction

Since owning part of a venture's equity is a defining characteristic of entrepreneurs (Bitler et al., 2005; Hall & Woodward, 2010), an emerging body of research has started to investigate the consequences of equity ownership for the founders of new ventures. These studies have predominately taken an economic perspective, arguing that equity ownership is the primary form of compensation in entrepreneurship (Campbell, 2013; Wasserman, 2006) and a key incentive for founders to develop their ventures successfully (Kagan et al., 2020). Although the current value of a founder's equity stake may be difficult to determine and monetize in early-stage ventures (Hall & Woodward, 2010), the expectation of large financial rewards in the future, such as from a trade sale or an IPO, serves as an important motivation for the founder (Hellmann et al., 2019). Studies have also emphasized that owning a greater equity stake in the venture provides the founder with the decision latitude and the opportunity to develop the venture according to their own preferences (Nelson, 2003; Xie et al., 2020). Finally, Bitler et al. (2005) have found that because equity ownership increases entrepreneurial effort, which in turn increases firm performance, a founder's equity ownership is positively associated with firm performance.

Although a rational, economic perspective suggests that more equity ownership in a venture is beneficial for the founder, it tends to neglect the potential psychological consequences of increased ownership. In particular, psychological ownership theory (Pierce et al., 2001, 2003) suggests that equity ownership not only results in the possession of equity stakes (legal ownership), but also impacts founders' perceptions of being tied to the venture (psychological ownership; Etzioni, 1991; Pierce et al., 2001). These feelings may be particularly influential in the context of entrepreneurial teams, because founders develop their venture through intensive social interactions with their teammates (Ensley & Hmieleski, 2005; Klotz et al., 2014; Reese et al., in press). However, psychological ownership theory

proposes that ownership can be a double-edged sword. On the one hand, it involves feelings of responsibility, care, and concern for the possession (Pierce et al., 2001), which may encourage the founder to nurture the venture and thus enhance their focus on the entrepreneurial team responsible for venture development (Klotz et al., 2014; Lazar et al., 2020). On the other hand, psychological ownership can also have a "dark side" (Baer & Brown, 2012, p. 61) involving feelings of possessiveness and territoriality with respect to the possession (Brown et al., 2005), which may isolate founders from their team. Thus, adopting a psychological ownership perspective allows us to understand the potentially detrimental influences of ownership on founders' perceived connection to, and oneness with, the team—that is, their identification with the entrepreneurial team (Farmer et al., 2015; Mael & Ashforth, 1992). This is important because founders who identify more with their team are likely to cooperate better with their teammates (Dutton et al., 1994; Kerr & Kaufman-Gilliland, 1994) and to be more satisfied with their team (Johnson & Avolio, 2019). Greater identification as a positive team psychological process (Kollmann et al., 2020) is also associated with better team learning and future team performance (Van der Vegt & Bunderson, 2005) and increased feelings of belonging to the team (Ashforth & Mael, 1989)—and, thus, higher firm performance (Ensley et al., 2002). Hence, we ask: How is a founder's equity ownership related to their identification with the entrepreneurial team?

To address this question, we develop and test a theoretical model that accommodates the two sides of psychological ownership (Pierce et al., 2001, 2003) to develop arguments for how psychological ownership can shape a founder's subsequent identification with the team in two different ways. In particular, we theorize how the multiplicative interaction of the two contradicting lines of argumentation leads to a curvilinear (inverted U-shaped) relationship between a founder's equity ownership and their subsequent identification with the entrepreneurial team. Importantly, equity ownership is a team reward—that is, it is contingent

on the performance of the team (Barnes et al., 2011; Nyberg et al., 2018), as the value of a founder's equity stake ultimately depends on the value of the venture (Bitler et al., 2005) and, thus, on the joint effort and performance of the entrepreneurial team (Ensley & Hmieleski, 2005; Klotz et al., 2014). Hence, we suggest that the nature of the curvilinear relationship between equity ownership and a founder's subsequent identification with their team is contingent on the founder's perception of team performance. We test this model based on 156 data points with a sample of 82 founders nested within 50 entrepreneurial teams using a time-lagged longitudinal research design and multiple data sources.

Our study provides three key contributions. First, we extend prior studies' rational, economic perspective on equity ownership (Bitler et al., 2005; Hall & Woodward, 2010) with a psychological ownership perspective. This perspective allows us to theorize on the potential psychological consequences of equity ownership beyond the notion of "the more, the better." By finding that medium levels of equity ownership seem to be (socially) beneficial to founders' identification with the entrepreneurial team, we illustrate that an increase in ownership beyond this medium level comes with a social cost.

Second, work on entrepreneurial teams has suggested that team identification can be fostered by the existence of contracts that shape team members' feelings of boundaries around the team (Blatt, 2009). Our paper complements this idea by focusing on the *terms* of the contract—namely, the team members' equity stakes—rather than its mere existence. It appears that it is not only the boundaries separating the team from its environment that shape identification, but also those within the team, as specified by equity ownership.

Third, our paper informs psychological ownership theory, and in particular the discussion of whether there is an optimal level of psychological ownership, as well as its boundary conditions (Dawkins et al., 2017). By theorizing on a curvilinear relationship between equity ownership, the connected feelings of psychological ownership, and a

founder's identification with the team, we show that there does indeed seem to be an optimum level of ownership—at least for some important attitudes of founders towards their team. Our work also suggests that the role of ownership is moderated by the anticipated value of the possession, which represents an important boundary condition for psychological ownership theory.

3.2 Theory and hypotheses

3.2.1 Founders' psychological ownership of their venture

Equity ownership is crucially important to founders (Hall & Woodward, 2010). However, beyond the legal possession of the venture, ownership also has psychological implications, as individuals develop feelings of being "psychologically tied" to their possession (Pierce et al., 2001, p. 304). This aspect of ownership has been developed in psychological ownership theory, and speaks to the notion of an (im-)material entity being perceived as "my" or "mine" (Pierce et al., 2001, 2003). Originally introduced to explain the connections between employees' legal ownership stakes in organizations and performance (Pierce et al., 1991; Pierce & Rodgers, 2004), psychological ownership theory sheds light on the psychological antecedents and consequences of possession (Pierce et al., 2001, 2003). In the context of entrepreneurship, Lahti et al. (2019) build on psychological ownership theory and show that founders develop affective bonds with their ventures, similar to those between parents and their children. In addition, Ikävalko et al. (2010) show that legal and psychological ownership are tightly intertwined in the context of small ventures. Hence, psychological ownership theory helps explain why, with the possession of equity ownership, founders do not only become legal owners of the venture, but also develop feelings of ownership towards it.

Psychological ownership theory highlights that psychological ownership involves two different sides: On the one hand, psychological ownership involves "a sense of responsibility

and concern for [the possession]," which results in "a need to care for and nurture [it]" (Baer & Brown, 2012, p. 61). On the other hand, psychological ownership is connected to possessiveness and territoriality (Baer & Brown, 2012), which is characterized by the individual's attachment to the possession, as well as the occupation and defense of it (Brown et al., 2005). Both sides of psychological ownership trigger individuals' willingness to put great effort into promoting their possession (Baer & Brown, 2012) and hold themselves to account for its development (Avey et al., 2009; Dawkins et al., 2017). Thus, a founder who experiences high levels of psychological ownership of their venture is likely to show a high level of care for the venture, which allows them to feel and act as an integral part of it.

However, the two sides of psychological ownership have different implications for how individuals interact with their social environment with respect to their possession. These differences are particularly important for founders who develop the venture jointly in an entrepreneurial team—that is, "two or more individuals who pursue a new business idea, are involved in its subsequent management, and share ownership" (Lazar et al., 2020, p. 29). In these teams, equity shares are distributed among the team members and each member possesses a certain equity stake that will shape their psychological ownership of the venture. However, to advance their ventures, founders must collaborate within their entrepreneurial teams in an interdependent way (de Jong et al., 2013). Such intensive collaboration can trigger founders' identification with their team (Blatt, 2009)—that is, "the emotional significance that members of a given group attach to their membership in that group" (Van der Vegt & Bunderson, 2005, p. 533). Individuals who strongly identify with their teams perceive their team to be a unified entity (Bezrukova et al., 2009; Rapp & Mathieu, 2019). Hence, such high levels of identification with the entity can have positive outcomes, since, for instance, founders develop increased satisfaction with the team (Rapp & Mathieu, 2019), engage in citizenship behaviors towards other team members (Janssen & Xu, 2008), and

exhibit increased team learning and performance (Van der Vegt & Bunderson, 2005). Therefore, a founder's identification with the entrepreneurial team as a starting point for positive team psychological processes is crucial to the development of the venture (Kollmann et al., 2020).

Thus, we suggest that psychological ownership theory can explain how a founder's equity ownership influences their subsequent identification with the team. However, based on the two sides of psychological ownership described by the theory, we argue that equity ownership can shape the founder's subsequent identification with the team in two opposing ways simultaneously. In the following, we first develop arguments for a potential positive as well as a potential negative relationship between equity ownership and identification. We then follow Haans et al. (2016) to argue how these opposing theoretical patterns interact to form a curvilinear relationship.

3.2.2 Founders' psychological ownership and identification with the entrepreneurial team

Psychological ownership and feelings of responsibility and care for the venture. Psychological ownership inherently involves feelings of responsibility towards the possession (Avey et al., 2009; Dawkins et al., 2017). The stronger an individual's sense of responsibility, the more time and thought they invest into their psychological possession (Pierce et al., 2001, 2003). Thus, founders who experience higher levels of psychological ownership of their venture because they possess a greater equity stake are also more likely to care for the venture and actively nurture it (Pierce et al., 2001). Given that venture success depends on the effort of the entire entrepreneurial team (Hmieleski & Ensley, 2007; Klotz et al., 2014), these founders are also likely to be aware of the importance of leveraging the knowledge and interdependencies within the entire entrepreneurial team to move the venture forward (de Jong et al., 2013). In particular, such interdependencies require all members to provide input

to team tasks to complete them successfully (Barrick et al., 2007). For example, founders who feel more psychological ownership of the venture are more likely to be aware of the knowledge and effort that all team members need to provide to jointly engage in managing the venture (Lazar et al., 2020) and strategic decision-making (Klotz et al., 2014). Thus, with higher levels of psychological ownership and more focus on the team, as well as the interdependencies between the team members, founders are likely to develop a stronger impression of being "in the same boat" with their teammates (Feeser & Willard, 1990, p. 89) and feel closer to them (Courtright et al., 2015). In turn, the founder's subsequent identification with the team will be higher (Bollen & Hoyle, 1990; Kerr & Kaufman-Gilliland, 1994). Thus, based on higher levels of psychological ownership and connected feelings of responsibility and care, we expect founders with a greater equity stake to subsequently identify more strongly with their entrepreneurial team than those with a smaller equity stake.

Psychological ownership and feelings of possessiveness and territoriality. Another line of reasoning suggests that psychological ownership can also diminish identification, because it involves potential feelings of possessiveness and territoriality (Baer & Brown, 2012). Specifically, territoriality is not merely the sense of "what is 'mine,'" but also includes the notion of "what is 'not yours'" (Brown, Crossley, et al., 2014, p. 468). Thus, individuals displaying territorial behavior tend to shield their possessions from others, and prevent those others from encroaching on their territory (Brown et al., 2005; Brown, Pierce, et al., 2014). Founders with higher levels of psychological ownership are thus likely to perceive themselves as central for decision-making in the venture and hang on to control (Brown et al., 2005; Pierce et al., 2001; Pierce & Jussila, 2010). These territorial behaviors are likely to be associated with neglecting or marginalizing the team and reducing one's collaboration with teammates (Avey et al., 2009; Brown et al., 2005). In turn, these behaviors will also distance

founders with strong psychological ownership from their teams. Indeed, prior research has found that team leaders who assume high levels of responsibility for their teams often feel distant from their team and lack companionship (Gabriel et al., in press). This distance is likely to decrease the affiliation with, and attachment to, the team (Lawler et al., 2008; Ozcelik & Barsade, 2018) and thus reduce founders' subsequent identification with the team. Thus, psychological ownership theory suggests that based on potential feelings of possessiveness and territoriality, owning a greater equity stake might be connected to lower levels of founders' subsequent identification with their entrepreneurial team.

The two sides of psychological ownership and identification with the entrepreneurial team. In sum, psychological ownership theory provides arguments that a founder's greater equity stake can be connected to both higher and lower levels of subsequent identification with the entrepreneurial team. On the one hand, psychological ownership of the venture is likely to increase responsibility and care for the venture and thus the awareness of the interdependencies within the team, which enhances founders' subsequent identification with their entrepreneurial team. On the other hand, psychological ownership can result in possessiveness and territoriality that can increase the distance between the founder and their team and, thus, reduce subsequent identification with the team. The integration of these two lines of argumentation leads to a multiplicative interaction of two latent linear functions (Haans et al., 2016). As a consequence, an intermediate level of equity ownership, which combines the potential positive effects of founders owning a greater equity stake as well as the potential positive effects of founders owning a lower stake, will maximize their subsequent identification with the team. We thus hypothesize:

> ***Hypothesis 1.*** *The size of a founder's equity stake has an inverted U-shaped relationship with their subsequent level of identification with the entrepreneurial team (controlling for their prior level of identification with the entrepreneurial team).*

3.2.3 The moderating role of perceived entrepreneurial team performance

While the actual monetization of an equity stake is a distant outcome (Kagan et al., 2020), the expected future value of a founder's equity stake is a key motivation for them to engage in the venture (Campbell, 2013; Hall & Woodward, 2010). However, the future value of that stake depends heavily on the success of the venture—which is largely shaped by the entrepreneurial team (Reese et al., in press; Wood & Michalisin, 2010). Thus, a founder's equity stake is essentially a team reward; that is, "the rewards of group members are correlated positively" (Barnes et al., 2011, p. 1613). Indeed, equity ownership can be considered as a form of collective profit-sharing, in which the generated profits (i.e., the future financial value of the venture) are distributed among its members (Nyberg et al., 2018), and entrepreneurial team members decide on the type of distribution (Hellmann & Wasserman, 2017). Because the founder's equity stake represents a team reward, team performance is highly salient to founders. For example, prior studies have shown that founders engage in monitoring behaviors to assess their teammates' performance in relation to the equity stake each founder owns (Breugst et al., 2015). Hence, we suggest that perceived team performance represents a key contingency for the relationship between a founder's equity stake and their subsequent identification with the team. More specifically, we propose that the perceptions of higher levels of team performance accentuate the curvilinear relationship by strengthening both opposing latent relationships (Haans et al., 2016).

On the one hand, we expect perceptions of higher team performance to amplify the positive relationship between the size of a founder's equity stake and their subsequent identification with the entrepreneurial team. If founders with a greater equity stake perceive the performance of their team to be better, they can expect a higher future value for their venture, which will intensify their feelings of psychological ownership. These founders who perceive more psychological ownership are likely to perceive even more responsibility, care,

and concern for their venture. They might strive to fulfill their responsibilities more diligently, given the venture's strong prospects. Thus, they tend to be more aware of the interdependent contribution of all team members' knowledge and efforts for positive future venture outcomes. In particular, these founders are more likely to see and appreciate the interdependencies within the team than founders who perceive their teams as performing more poorly, and who have less at risk regarding the future value of the venture's equity as a result. Based on this line of reasoning, we expect equity ownership to have a more positive relationship with a founder's subsequent identification with their team when they perceive team performance to be higher rather than lower.

On the other hand, perceptions of higher team performance may also amplify the potential negative relationship between a founder's equity ownership and their subsequent identification with the entrepreneurial team. Feelings of possessiveness and territoriality stemming from higher levels of psychological ownership are likely to increase with a founder's perceptions of high team performance, because their equity stake is more valuable to them. Indeed, Brown et al. (2005, p. 580) suggest that "the more psychologically valued the territory, the more effort an individual will make to mark it." These founders are more likely to feel that the venture is their personal possession, and attempt to monopolize decision-making. Because they take on such a central and essential role in the venture, they are likely to exert a high level of control without considering their teammates' input. Thus, founders high in psychological ownership are more likely to isolate themselves from their team when they perceive team performance to be high, to protect their possession from others' influence. This distance from the team is likely to reduce their identification with it (Ozcelik & Barsade, 2018). In contrast, when founders perceive team performance to be lower, they consider their possession as less valuable, which will reduce their attempts to control and protect it. Thus,

they are less likely to distance themselves from the team and their subsequent identification will not diminish to the same extent.

Together, these arguments suggest that higher levels of perceived team performance strengthen both the potential positive relationship between equity ownership and a founder's subsequent identification with their team, and also the potential negative relationship between equity ownership and their subsequent identification with the team. Haans et al. (2016) describe this pattern as a way in which moderators can accentuate curvilinear relationships. We thus hypothesize:

> ***Hypothesis 2.*** *The founder's perception of team performance moderates the inverted U-shaped relationship between the size of their equity stake and their subsequent level of identification with the entrepreneurial team (controlling for their prior level of identification with the entrepreneurial team), such that at higher levels of perceived team performance, the inverted U-shape is more accentuated than at lower levels of perceived team performance.*

3.3 Research methods

3.3.1 Research design and sample

Testing our hypotheses requires that we capture ventures that are young and still largely owned by their founders. Therefore, we aimed to recruit participating entrepreneurial teams from business incubators in a major European metropolitan area, as incubator ventures are typically young and characterized by high levels of founder ownership (Cohen, 2013). In a first step, we compiled a list of all ventures located in the 289 incubators of the region. We gathered data on the founders and their ventures (i.e., names, team size, venture age, type of organization) from the incubators' and ventures' websites, as well as via telephone calls and onsite visits. We identified 195 new ventures that matched our two sampling criteria: (1) they were run by entrepreneurial teams (Lazar et al., 2020) and (2) they were less than six years old (Amason et al., 2006). In phone calls and during onsite visits, we asked the founders to participate in our study. Sixty-four teams agreed to participate, while 65 declined, and another

66 were inaccessible because they had not yet started their activities, or had already terminated them.

As our dependent variable is a founder's subsequent identification with their entrepreneurial team, we used a time-lagged research design allowing us to model temporal precedence. Moreover, we relied on different data sources, which should additionally limit common method variance (Podsakoff et al., 2012). We conducted personal interviews with the founders of the 64 teams who had agreed to participate (t_0), asking them about the equity distributions in their teams.[8] Founders of 59 teams disclosed this information, which was not publicly available because of the small size and short history of firms in our sample. In a next step, we conducted four rounds of online questionnaires, leaving nine weeks between each round. We captured the moderating variable of our model in two rounds of online questionnaires (t_2 and t_3) as well as the dependent variable in two rounds of lagged surveys (t_3 and t_4). We also included the measure of the dependent variable in prior rounds of the survey (t_1 and t_2) to be able to control for prior identification with the entrepreneurial team in our models. If responses to our lagged variable (identification with the team at t – 1) were missing at one point in time, we had to exclude the founder from our data set because we lacked the corresponding score of a founder's prior identification with the team. All further control variables were captured at t_1 and t_2. Our final dataset included 156 observations from 82 founders nested in 50 entrepreneurial teams. Table 3 provides an overview of the descriptive statistics of our final sample.

[8] Over the course of the study, the equity distribution within the teams remained stable.

Table 3. Overview of the sample

Sample description	M	SD
Age of founders	32.66 years	8.80
Female	10 percent	0.30
Education		
High school	5.26 percent	-
Bachelor's degree	21.05 percent	-
Masters' degree	65.79 percent	
PhD or higher	7.89 percent	
Team size	2.56 founders	0.67
Team age	2.63 years	2.36
Venture age	2.14 years	1.62
Venture stage		
Conception and development	15.56 percent	-
Commercialization	42.22 percent	-
Growth	35.56 percent	-
Stability	6.67 percent	-
Venture industry		
Services	41.67 percent	-
Computer hardware and software	27.08 percent	-
E-commerce	6.25 percent	-
Material and natural sciences	4.17 percent	-
Consumer goods	4.17 percent	-
Other	16.67 percent	-

Notes. Number of individuals = 82; number of teams/ventures = 50

3.3.2 Measures

Subsequent identification with the team. We measure our dependent variable, a founder's subsequent identification with the entrepreneurial team, based on an identification scale by Mael and Ashforth (1992), which was adapted to measure team identification (Dietz et al., 2015; Millward et al., 2007). The scale includes six items asking participants to indicate their perceived unity with the team during the last few weeks on a seven-point Likert-type scale (1 = "not at all", 7 = "completely"). For example, participants responded to the item "When someone criticizes this team, it feels like a personal insult." The average reliability (Cronbach's alpha) of the scale across the questionnaires is 0.74.

Equity. We focus on the size of a founder's equity stake, which is consistent with prior studies. For instance, Bitler et al. (2005) draw on the founder's equity stake, Kotha and George (2012) use the focal entrepreneur's equity stake, and Kroll et al. (2007) build on the aggregate equity stake of all members of a top management team. To corroborate our results in a robustness check, we additionally calculate the relative equity stake as suggested by Hellmann et al. (2019), i.e. by dividing a founder's absolute equity stake by the total amount of equity owned by the entrepreneurial team.

Perceived entrepreneurial team performance. To measure perceived team performance, we use a four-item measure by Shaw et al. (2011). The items capture a founder's perceptions of the team regarding "quality of work," "getting work done efficiently," and "flexibility in dealing with unexpected changes," as well as "overall performance." We asked respondents to reflect on their last few weeks at work and indicate their rating of the team's performance on a Likert-type scale ranging from 1 ("very poor") to 7 ("outstanding"). The average Cronbach's alpha of the scale in the final sample is 0.75.[9]

Control variables. Based on theoretical arguments, we consider several control variables at the individual-, team-, and venture-levels that might bias the relationships to be tested in the present study. First, consistent with recommendations for causal modeling (Gollob & Reichardt, 1987), we control for potential autoregressive effects. Thus, we control for *prior identification with the team*, which we measured at t_1 and t_2, using the same scale as for the dependent variable (see above). Second, at the level of the individual, we use a dummy variable to control for *majority ownership* (1 = majority owner; 0 = not majority owner). Depending on the equity distribution within the team and among external stakeholders, different levels of equity ownership can result in majority ownership, which is subsequently

[9] The complete scales of the study are presented in Appendix 3.

likely to shape a founder's perceptions of the team. The information on majority ownership was coded from the information on equity distributions within each team. Third, we control for a founder's *entrepreneurial experience*, as it might be related to a founder's preferences with respect to the team's equity distribution (Kotha & George, 2012), as well as to a founder's identification with the venture (Lee et al., 2020), which might influence their identification with the team. We measured entrepreneurial experience at t_1 by asking the individual team members how many firms they had previously founded, which is consistent with prior research (e.g., Uy et al., 2013). Fourth, drawing on the study by Hellmann and Wasserman (2017), we include a founder's total years of *work experience* as a control variable. A founder with more work experience might have a greater equity stake, which can potentially confound the relationship.[10] We measured work experience at t_1 by asking participants how many years of work experience they had gained before joining the venture. In addition, we consider the founder's *gender* as an important control variable at the individual-level (1 = female; 0 = male), which was surveyed at t_1.

At the team-level, we control for *team age* and *team size*. Team age reflects the extent to which founders are familiar with their teammates. The longer teams have worked together, the more team members interact with and get used to one another, which might influence a member's identification with the team (e.g., Johnson et al., 2006). We asked respondents at t_1 to indicate when the members of the entrepreneurial team had started working together in the current composition/setup (even before founding the venture, if applicable).[11] Further, team

[10] Total work experience in our sample of young founders is, in many cases, an indicator of organizational tenure and is highly correlated with a team member's age. As a consequence, we cannot control for the founder's age in the same model, due to multicollinearity issues ($r = 0.91$, $p = 0.00$). As a robustness check, we included the founder's age instead of their years of work experience, which did not change our original results.

[11] We draw on team age as a control variable in the present study, as the total duration of working together in the team is more likely to influence a founder's identification with the team than the age of the venture. Because of the high correlation between team age and venture age ($r = 0.58$, $p = 0.00$) we cannot control for both variables at the same time due to multicollinearity issues. However, our results did not change when we included venture age instead of team age.

size changes the meaning of a founder's equity stake (e.g., owning 50% in a two-founder team is likely to have different implications than in a three-founder team). Thus, we include team size as a control variable. We had researched the team sizes (i.e., the number of founders in the current team compositions) online before our primary data collection, and validated these numbers during the interviews at t_0.

Finally, we asked the participants to assess the probability that their venture would survive the following five years. This *perceived probability of survival* represents an important indicator for whether a founder believes in the venture, and thus might hint at how much they value their equity stake. The probability of survival in five years was measured in percent at t_1.

3.3.3 Statistical analyses

We use hierarchical linear modeling (HLM) as the estimation method because of the nested structure of our data. To appropriately accommodate the four waves of surveys, in which our variables were measured repeatedly at several points in time, we draw on Schonfeld and Rinskopf (2007). Particularly, at Level 1, we analyze 156 observations (repeated measures) nested in 82 individuals (Level 2), which again are nested in 50 entrepreneurial teams (Level 3). Consistent with recommendations for HLM (Hofmann & Gavin, 1998), we group mean center all variables at Level 1 and grand mean center all variables at Levels 2 and 3. To test for the presence of the hypothesized inverted U-shape, we follow the procedure suggested for testing inverted U-shaped relationships (Haans et al., 2016; Lind & Mehlum, 2010), which we describe in more depth in the results section.

Table 4. Correlations and descriptive statistics

	Variables	M	SD	1	2	3	4	5	6	7	8	9	10
1	Identification w/ the team, t+1	5.49	1.09	1.00									
2	Identification w/ the team, t−1	5.31	0.98	0.73***	1.00								
3	Equity[#]	0.40	0.16	0.06	0.08	1.00							
4	Team performance	5.62	0.77	0.19*	0.07	−0.13	1.00						
5	Majority owner[#§]	0.16	0.37	0.13[†]	0.08	0.43***	−0.10	1.00					
6	Gender[#‡]	0.10	0.30	–0.05	–0.03	-0.02	0.18*	-0.03	1.00				
7	Entrepreneurial experience[#]	0.61	0.87	–0.19*	–0.14[†]	0.05	−0.03	−0.13	−0.09	1.00			
8	Work experience	7.28	7.27	–0.10	0.05	0.32***	0.11	0.09	0.09	0.16[†]	1.00		
9	Team age[#]	2.63	2.36	0.05	0.09	0.19*	−0.06	−0.04	−0.10	0.09	0.19*	1.00	
10	Team size[#]	2.56	0.67	0.02	–0.06	−0.39***	0.09	0.03	−0.22**	−0.04	−0.31***	−0.30***	1.00
11	Survival probability[#]	72.23	22.89	0.07	0.12	0.18*	0.37***	0.00	0.24**	−0.03	0.25**	0.15[†]	−0.37***

Notes. $N = 156$ observations; *** $p < .001$; ** $p < .01$; *$p < .05$; [†] $p < 0.1$

[#] Individual- and team-level measures were assigned down to the level of the observation for calculating the correlations.

[§] 1 = Yes, 0 = No

[‡] 1= Female, 0 = Male

Table 5. Hierarchical linear model for the prediction of identification with the team (t+1)

	Model 1			Model 2			Model 3			Model 4 with relative Equity			Model 5 incl. Equity selection correction			Model 6 incl. team performance selection correction		
Variables	**β**	**SE**	**p**	**β**	**SE**	**p**	**β**	**SE**	**p**	**β**	**SE**	**p**	**β**	**SE**	**p**	**β**	**SE**	**p**
Intercept	5.44	0.12	0.00	5.53	0.13	0.00	5.56	0.13	0.00	5.53	0.13	0.00	5.59	0.17	0.00	6.38	1.30	0.00
Control variables																		
Lagged identification with the team (t–1)	−0.15	0.11	0.15	−0.15	0.11	0.16	−0.11	0.10	0.29	−0.12	0.10	0.26	-0.12	0.10	0.27	-0.11	0.10	0.30
Majority owner§	0.38	0.30	0.20	0.53	0.35	0.13	0.57	0.35	0.11	0.72	0.38	0.06	0.57	0.35	0.10	0.62	0.36	0.09
Gender‡	−0.21	0.38	0.58	−0.23	0.38	0.55	−0.21	0.38	0.57	−0.20	0.37	0.59	-0.26	0.38	0.49	-0.27	0.39	0.49
Entrepreneurial experience	−0.19	0.13	0.14	−0.20	0.13	0.12	−0.19	0.13	0.14	−0.15	0.13	0.23	-0.21	0.13	0.10	-0.13	0.16	0.42
Work experience	−0.02	0.02	0.35	−0.02	0.02	0.31	−0.02	0.02	0.31	−0.02	0.02	0.27	-0.02	0.02	0.31	-0.03	0.02	0.25
Team age	0.03	0.05	0.50	0.03	0.05	0.49	0.04	0.05	0.41	0.04	0.05	0.40	0.03	0.05	0.59	0.05	0.05	0.34
Team size	0.05	0.18	0.78	0.10	0.19	0.59	0.08	0.19	0.68	0.05	0.20	0.81	0.00	0.19	0.99	0.03	0.20	0.87
Survival probability	0.00	0.01	0.34	0.01	0.01	0.20	0.01	0.01	0.26	0.01	0.01	0.26	0.00	0.01	0.40	-0.00	0.02	0.83
Inverse Mills ratio (Equity)													-0.14	1.19	0.90			
Inverse Mills ratio (Team performance)																-1.13	1.78	0.53
Main effect																		
Equity				0.42	0.85	0.62	0.43	0.85	0.61				0.19	0.86	0.83	1.12	1.37	0.41
Equity squared				−4.49	2.38	0.06	−5.53	2.45	0.02				-5.26	2.43	0.03	-5.34	2.47	0.03
Rel. equity										−0.31	0.89	0.73						
Rel. equity squared										−4.69	2.13	0.03						
Moderation effect																		
Team performance							0.27	0.12	0.03	0.26	0.12	0.03	0.26	0.13	0.04	0.27	0.12	0.03
Equity × Team performance							1.81	1.07	0.09				2.29	1.96	0.05	1.79	1.08	0.10
Equity squared × Team performance							−9.49	4.42	0.03				-10.11	4.53	0.03	-9.41	4.41	0.03
Rel. equity × Team performance										1.37	1.00	0.17						
Rel. equity squared × Team performance										−8.02	3.42	0.02						
Pseudo R^2	0.10			0.13			0.14			0.15			0.16			0.14		

Notes. Number of observations = 156; number of individuals = 82; number of teams = 50; § 1 = Yes, 0 = No; ‡ 1= Female, 0 = Male

3.4 Results

3.4.1 Hypothesis testing

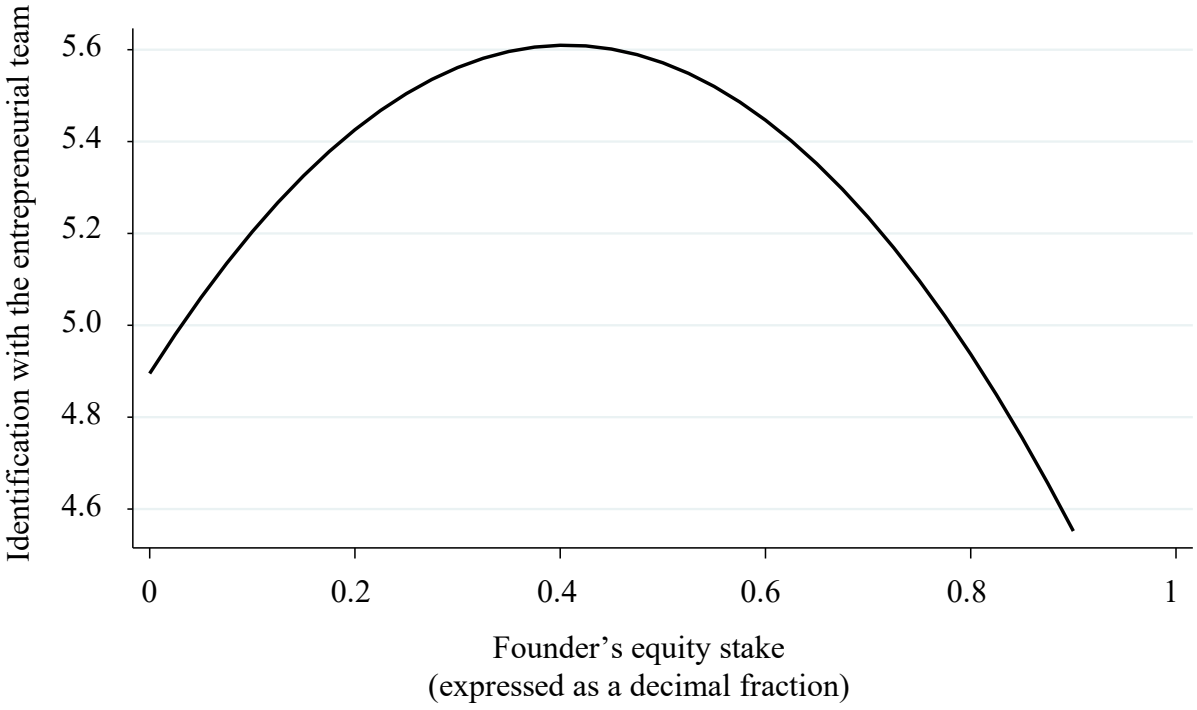
We present the descriptive statistics and correlations in Table 4. The highest variance inflation factor (VIF) in the model is 1.43, which is well below the widely recognized cutoff value of 10 (Hair et al., 2009) and thus indicates that multicollinearity is unlikely to bias our estimations.

We present the results of our analysis in Table 5. We sequentially enter the control variables, main effect predictors, and predictors. For each model, we report an indicator of explained variance (Pseudo R^2), as suggested by Snijders and Bosker (2011) for models with variance at different levels. The Pseudo R^2 value increases from step to step, indicating a proportional reduction in residual variance.

Model 1 includes the control variables only. In Model 2, we enter the founder's equity stake and its squared term. For hypotheses testing, we draw on the full model, Model 3, which additionally includes a founder's perception of team performance and its interactions with the founder's equity stake (Aiken & West, 1991). Hypothesis 1 states that the size of a founder's equity stake has an inverted U-shaped relationship with their subsequent level of identification with the entrepreneurial team. To test this hypothesis, we follow recommendations for the empirical investigation of curvilinear relationships and tested the three necessary conditions for the presence of an inverted U-shaped relationship between the equity stake and a founder's subsequent identification with their team (Haans et al., 2016; Lind & Mehlum, 2010): First, the relationship between equity squared and a founder's subsequent identification with the team is negative and significant ($\beta = -5.53$, $p = 0.02$). Second, the slope at the lower bound of the relationship is positive and significant ($\beta = 4.66$, $p = 0.01$), and the slope at the upper bound of the relationship is negative and significant ($\beta = -6.39$, $p = 0.02$). Third, the location of the turning point, including its 95 percent confidence

interval lies at X = 0.04 [−0.11; 0.19] (the corresponding non-centered value is 0.43 or 43%). This confidence interval is located well within the range of X-values—that is, between the minimum (X = −0.39) and maximum value of the centered founder's absolute equity stake (X = 0.51). Figure 3 provides a plot of the curvilinear relationship. Taken together, our data support an inverted U-shaped relationship between the size of the founder's equity stake and subsequent identification with their team, which is consistent with Hypothesis 1.

Figure 3. Effect of the size of a founder's equity stake on their subsequent identification with the entrepreneurial team



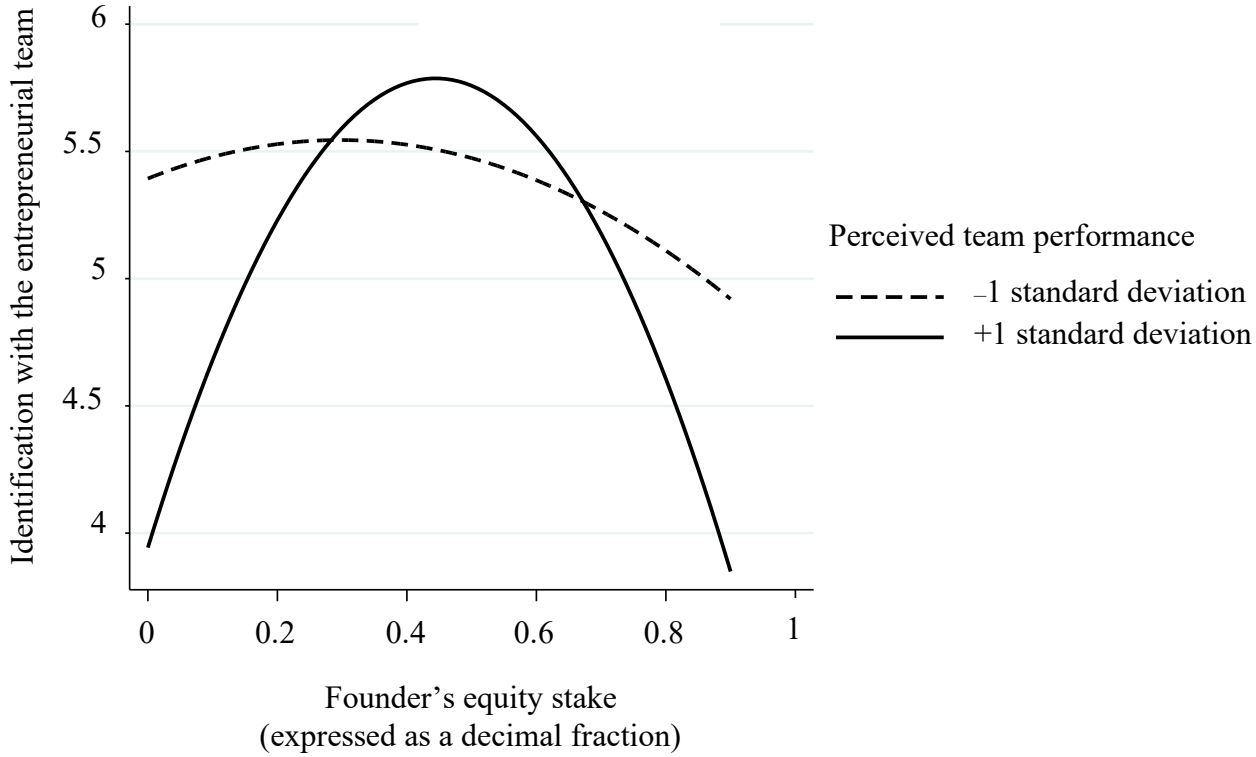
Notes.

1. As the founder's equity stake is a meaningful value and can be interpreted intuitively, we refrained from using the centered value in the figure above. The untransformed turning point in our data is located at X = 0.43, which indicates that a maximum level of identification with the team is reached with an equity stake of 43%. However, all statistics were computed with the grand mean centered values.

2. Regarding the distribution of our sample, 56.1 percent of the individuals (46 founders) lie below the turning point (< 0.43) and 43.9 percent of the individuals (36 founders) lie above the turning point (> 0.43). 84.16 percent of the cases lie within one standard deviation of the mean.

In Hypothesis 2, we postulate that the founder's perception of team performance moderates the inverted U-shaped relationship between the size of their equity stake and their subsequent level of identification with the entrepreneurial team, such that at higher levels of perceived team performance, the inverted U-shape is more accentuated than at lower levels of performance. Thus, we consider the interaction between the squared term of the founder's equity-stake size and their perceptions of team performance (Model 3 of Table 5). The interaction term of perceived team performance and the squared term of the equity distribution is negative and significant ($\beta = -9.49$, $p = 0.03$). We plot this interaction in Figure 4 for two levels of perceived team performance—namely, at one standard deviation below the group mean (−0.40, dashed) and at one standard deviation above the group mean (0.40, solid). The plot shows that the inverted U-shaped relationship is flatter for lower levels of perceived team performance and more accentuated for higher levels of performance. This pattern supports Hypothesis 2.

Figure 4. Effects of a founder's equity stake on their subsequent identification with the entrepreneurial team in contexts of high and low perceived team performance



Notes. As the founder's equity stake is a meaningful value and can be interpreted intuitively, we refrained from using the centered value in the figure above. However, all statistics were computed with the grand mean centered values

3.4.2 Robustness checks

To check the robustness of our results, we test the full model using an alternative operationalization of the size of a founder's equity stake. Drawing on Hellmann et al. (2019), we calculate the relative equity stake of each founder in an entrepreneurial team by dividing the absolute value of the founder's equity stake by the total amount of equity held within the entrepreneurial team. The results, displayed in Model 4 of Table 5, are fully consistent with our original findings relying on the founder's absolute equity stake.

Next, we conduct robustness checks to address potential endogeneity issues of our model. First, we test the full model including a correction for a potential self-selection bias (Hamilton & Nickerson, 2003). Following recommendations by Heckman (1979), we

estimate a two-stage model for the size of a founder's equity stake. In an initial step, we predicted the size of a founder's equity stake in a probit regression model that included a variable capturing a founder's contributions to business development as a function of our predictor and control variables.[12] We assume that founders contributing to the business development of their venture own a greater equity stake, as they carry greater responsibility in finding a suitable business model (e.g., Hellmann & Wasserman, 2017). Hence, this variable is theoretically and empirically significantly related to the size of a founder's equity stake, yet unrelated to our dependent variable of a founder's subsequent identification with the team. We dummy-coded a founder's contributions to business development from the interviews at t_0. In a next step, using the predicted size of a founder's equity stake stemming from the first-stage model, we calculated the inverse Mills ratio (Heckman, 1979), which we added as a predictor into our full model. The results are displayed in Model 5 of Table 5. Second, we repeated the two-step process with our moderating variable, a founder's perception of the team's performance, to rule out endogeneity issues resulting from an omitted variable bias. Again, following recommendations by Heckman (1979) and drawing on the average years of industry experience among the team, we first estimate a probit model predicting whether a founder perceives above average levels of team performance as a function of our main predictor and control variables.[13] Extant research has shown close connections between industry experience and performance forecasts (Cassar, 2014), as well as between a founder's industry experience and performance (Hmieleski et al., 2015). Hence, we assume that with higher average levels of industry experience, founders will have a more realistic view of their venture's performance. The entrepreneurial team is thus more likely to fulfill its performance

[12] We excluded the control variable indicating whether a founder is the majority owner when predicting the size of a founder's equity stake, as majority ownership perfectly predicts a founder's equity stake.
[13] We excluded a founder's work experience from the set of control variables due to its high correlation with the team's average industry experience ($r = 0.75$, $p = 0.00$) to avoid multicollinearity issues.

expectations, which ultimately enables founders to perceive heightened levels of team performance. Yet, the average levels of industry experience in the team are unrelated to a founder's identification with the team. Following the estimation of the probit model, we calculate the inverse Mills ratio (Heckman, 1979) and add the variable to our full model. The results are displayed in Model 6 of Table 5. Overall, the pattern and significance of the results in Models 5 and 6 remain fully consistent with our original findings. These findings indicate that endogeneity issues are unlikely to bias our results.

Moreover, we corroborate our results by including additional control variables at the individual- and venture-level. Since prior studies have shown the impact of having a CEO on both equity ownership (Hellmann & Wasserman, 2017) and identification (Howard et al., 2021), we test our model controlling for whether the founder is the CEO. We dummy-coded the variable from the interviews at t_0. In addition, we rule out that a venture's age (measured in years), stage, or performance impact our results. We survey all three variables at t_1. More specifically, we include the dummy-coded measure of venture stage proposed by Kazanjian (1988), who distinguishes four stages: (1) conception and development, (2) commercialization, (3) growth, and (4) stability. As objective and comparable performance data was not available for the early-stage ventures in our sample, we include a dummy variable capturing whether the venture has begun to generate sales. Despite adding all variables into the full model (Model 3), the results remain consistent with our original findings.[14]

3.5 Discussion

In this study, we build on psychological ownership theory (Pierce et al., 2001, 2003) to understand how the size of a founder's equity stake impacts their identification with the

[14] Results are displayed in Appendix 4.

entrepreneurial team as an important proximal and psychological outcome in the entrepreneurial process (Kollmann et al., 2020). We theorize and find that the size of a founder's equity stake has an inverted U-shaped relationship with their subsequent identification with the entrepreneurial team. By drawing on the notion of equity as a team-based reward, we also demonstrate that team performance moderates the curvilinear relationship between a founder's equity stake and their subsequent identification with the team. Our study offers novel theoretical insights for the literatures on equity ownership, entrepreneurial teams, and psychological ownership.

3.5.1 Theoretical implications

Our study extends prior research on equity ownership in entrepreneurial ventures. Based on a rational, economic perspective, this stream of research suggests that entrepreneurs strive for a large equity stake (Hall & Woodward, 2010) and that more equity ownership is beneficial for them (Bitler et al., 2005). Our study challenges this assumption by theorizing on the potential consequences of psychological, as compared to legal, ownership. Building on the two sides of psychological ownership described in psychological ownership theory, we theorize and find a curvilinear relationship between the size of a founder's equity stake and their subsequent identification with the entrepreneurial team. Therefore, we demonstrate that considering the psychological consequences of ownership in a social context can lead to a more nuanced picture of the role of ownership for individuals than prior work drawing primarily from an economics perspective. Specifically, in terms of building a stronger team, our study suggests that it might be beneficial for founders to own a medium level of equity, whereas an increase in ownership beyond this level comes at a social cost.

Furthermore, prior research has connected founders owning a greater equity stake to higher levels of entrepreneurial motivation and effort (Bitler et al., 2005; Hellmann & Thiele, 2015), which increases firm performance (Bitler et al., 2005). However, in the context of

entrepreneurial teams, higher levels of identification with the team might also contribute to increased feelings of belonging to the team and thus improve firm performance (Ensley et al., 2002). Thus, our study indicates that the relationship between equity ownership and firm performance might not always be positive, because greater equity ownership can diminish the founder's identification with the team and thus have negative implications for performance (Lin et al., 2017; Van der Vegt & Bunderson, 2005). Therefore, our work emphasizes the need to consider different effects of equity ownership in the context of solo entrepreneurs versus entrepreneurial teams to advance our theoretical understanding of how a founder's equity stake leads to entrepreneurial outcomes. Based on these insights, future theorizing should consider the different sides of psychological ownership simultaneously, as there seems to be a sweet spot that allows founders to balance their responsibility, care, and concern for the venture with the possessiveness and territoriality arising from their equity ownership.

Moreover, our study also contributes to work on entrepreneurial team identification (Blatt, 2009; Cardon et al., 2017). Blatt (2009) describes entrepreneurial team identification as one important part of the team's relational capital. She suggests that contracting can help build up identification in entrepreneurial teams because it shapes the team members' "sense of a legal, financial, and social boundary around the team, thereby spurring a stronger sense of identification within the team" (Blatt, 2009, p. 543). Thus, boundaries provided by contracts allow the team to develop an understanding of who is part of the team and under which conditions. Extending these ideas, our theorizing and findings suggest that it is not the mere existence of a contract that can shape a founder's identification with their entrepreneurial team; rather, the *terms* of the contract—that is, how much equity is owned by one founder—shape their identification. Thus, while the boundaries *around* the team allow the founder to distinguish their team from other entities, the boundaries *within* the team also play an important role in entrepreneurial team identification.

Further, our work indicates that the two potential and opposing mechanisms explaining the curvilinear relationship are context dependent. Consistent with the work by Blatt (2009) suggesting that contracting is particularly important under conditions of novelty, future research could also explore whether novelty might be another contingency in the curvilinear relationship between a founder's equity ownership and their subsequent identification with the entrepreneurial team. For example, novelty might give rise to even more responsibility, care, and concern for the venture because it represents a challenging condition for new ventures (Jennings et al., 2009), and founders might want to compensate for these challenges (Amason et al., 2006). Alternatively, novelty might also intensify possessiveness and territoriality, because it reduces the predictability of the venture's development (Shepherd et al., 2000) and founders might strive to gain more control by engaging in territorial behaviors (Brown et al., 2005). Thus, our paper provides an avenue for future research to further understand the important construct of entrepreneurial team identification and how it emerges in entrepreneurial teams.

Although prior work has already acknowledged that entrepreneurial teams work in a highly interdependent way (de Jong et al., 2013; Knight et al., 2020), these studies have mainly referred to task interdependence—that is, "the degree to which the interaction and coordination of team members is required to complete tasks" (Langfred, 2007, p. 887). For example, entrepreneurial team members need to exchange and integrate their information to develop good solutions (Jung et al., 2017), interact with different stakeholders to get valuable feedback (Shepherd et al., in press), and jointly develop their venture's strategy (Klotz et al., 2014). We explicitly consider equity ownership as a team reward. Thus, we shed light on another form of interdependence—that is, outcome interdependence, which refers to "the degree to which the significant outcomes an individual receives depend on the performance of others" (Wageman, 1995, p. 147). We argue that the value of equity ownership depends on

the founders' perception of team performance, and find that team performance shapes the effect of a founder's equity stake on their subsequent identification with the team. Thus, while team performance can help founders to cope with task interdependence in their entrepreneurial team by allowing them to work together effectively (Beersma et al., 2003), our study suggests that it also allows them to socially benefit from outcome interdependence in terms of higher levels of subsequent identification with the team (at least for medium levels of equity ownership).

By focusing on entrepreneurial teams that are characterized by a high level of autonomy (Patzelt et al., 2021), our study also has interesting implications for research on team rewards. This literature has not conclusively determined whether team rewards should be split equally or equitably (i.e., based on the team members' contributions) within a team (see the review by Nyberg et al., 2018). Entrepreneurial teams are typically not subject to any externally imposed reward structure, but can negotiate how to distribute equity across the team, which can be described as the team's "first deal" (Hellmann & Wasserman, 2017, p. 2647). Indeed, entrepreneurial teams could be observed during their negotiations to understand their preferences for an equal vs. equitable split (Hellmann et al., 2019; Kagan et al., 2020). These observations would support a finer-grained picture of how team members define their contributions to the team, and how they mutually agree to these contributions. Such insights might represent another building block in the more general understanding of how team rewards could be distributed within the team.

Moreover, our paper contributes to research on psychological ownership by answering the call from Dawkins et al. (2017, p. 175) to "explore the optimal range of PO [psychological ownership] that is psychologically healthy and engaging." Given that we identify a curvilinear effect between the founder's psychological ownership of the venture and their subsequent identification with the entrepreneurial team, there appears to be an optimal level of the equity

stake and, thus, psychological ownership of the venture. Future research could focus on multiple outcomes, such as a founder's job satisfaction (Schjoedt, 2009), team efficacy (Courtright et al., 2015), and venture survival (de Jong & Marsili, 2015; Linder et al., 2020), to complement our findings.

Further, the review by Dawkins et al. (2017) highlights an important gap in psychological ownership research by pointing out that research has not yet sufficiently considered situational boundary conditions for the effects of psychological ownership. We identify perceived team performance as a potential boundary condition of the consequences of founders' psychological ownership. While a core tenet of psychological ownership theory is that a possession is valuable to its owner (Pierce et al., 1991, 2001), we argue that the effect of psychological ownership varies depending on the expected (rather than actual) economic value of the possession. Future research could build on our findings and include other, future-oriented boundary conditions impacting the value of the possession, such as the growth ambitions of the entrepreneurial team (Estrin et al., in press), or situational characteristics that can affect the probability that the desired outcome is achieved, such as environmental hostility reducing the venture's chances of survival (Elbanna & Child, 2007).

3.5.2 Limitations and directions for future research

While we carefully designed our quantitative study to avoid typical shortcomings, such as common method bias and simultaneity, some limitations remain. First, our study is longitudinal, and restricted to two measurement points each for the independent and dependent variables. Focusing on a rather short time frame allowed us to limit the role of major disruptive developments that many teams experience during their early years, such as turnover of team members and changes in equity distributions within entrepreneurial teams. However, changes in equity distribution (Hellmann et al., 2019) as well as vesting agreements (Kagan et al., 2020) might represent an interesting angle to understand a founder's

identification with the team in future research. Future research could add more measurement points to examine dynamism in the development of the venture as well as the founders' equity stakes.

Second, we did not directly measure psychological ownership, which we use as a basis to theorize the mechanisms linking equity ownership with a founder's subsequent identification with the team. We note, however, that equity ownership is an established antecedent of psychological ownership: Studies have also shown the close connection between founder ownership and resulting feelings of ownership (e.g., Ikävalko et al., 2010; Lahti et al., 2019). Future research could directly measure psychological ownership, as well as the two sides that psychological ownership theory ascribes to it.

Finally, we acknowledge that we did not include an objective measure of team performance, but instead drew on founders' perceptions of it. While the founders' perceptions of their team are crucial to understanding their attitudes and behaviors towards it (e.g., Breugst et al., 2015), an objective measure of team or firm performance might have represented a more objective indicator of the potential future value of a founder's equity stake. In future research, it would be particularly interesting to compare the role of the objective and perceived (future) value of the equity stake to understand what has a stronger influence on the outcomes of ownership.

3.6 Conclusion

Our study complements work on equity ownership by theorizing on the role of psychological ownership in the relationship between the size of a founder's equity stake and their identification with the entrepreneurial team. We theorize and find that a founder's equity stake has an inverted U-shaped relationship with their subsequent identification with the entrepreneurial team. A medium level of equity ownership appears to be optimal for a founder's identification with the team. Perceived team performance accentuates this

relationship, which is consistent with the idea that equity is a team reward. We hope that our study inspires future work on equity ownership, entrepreneurial teams, as well as rewards in entrepreneurial firms and psychological ownership.

4 STUDY III:

DOES ENVIRONMENTAL HOSTILITY BREAK THE TEAM AND THE VENTURE? TEAM HUMOR AS A COPING MECHANISM IN PERCEIVED HOSTILE ENVIRONMENTS[15][16]

Abstract: Past research points towards entrepreneurial teams' perceptions of environmental hostility increasing the likelihood of an entrepreneurial team or venture breakup. This study provides insights into how entrepreneurial teams can reduce their likelihood of breakups in such perceived adverse environments. We draw on research on socioemotional behaviors to theorize that team humor can help entrepreneurial teams cope with perceived environmental hostility. Based on survey data from all cofounders of 114 entrepreneurial teams and secondary data on their ventures and cofounders, we find that team humor mitigates the positive relationship between perceived environmental hostility and the likelihood of a breakup of the entrepreneurial team or its venture. Our study contributes to the literatures on coping in entrepreneurship, entrepreneurial teams, and to the literature on environmental hostility.

[15] This study is coauthored by Nicola Breugst. She has provided the data, continuously given feedback, and reviewed the study. Given that the paper is coauthored, I will refer to "we" rather than "I" throughout Study III.
[16] A short-paper version of this study (abstract and 1,500 words) was accepted and discussed at the 24th Annual Cognition in the Rough Workshop at the Academy of Management Annual Meeting (2021).

4.1 Introduction

As entrepreneurial teams embark on their entrepreneurial journey, their venture is confronted with specific industry conditions (Dess & Beard, 1984). One condition that is likely to substantially shape a team's entrepreneurial journey is a hostile industry environment "characterized by precarious industry settings, intense competition, harsh, overwhelming business climates, and the relative lack of exploitable opportunities" (Covin & Slevin, 1989, p. 75). According to past research, such a hostile environment represents a significant threat for the entrepreneurial team and its venture that increases their chances of a breakup (Miller, 1994; Zahra, 1993), and thus the likelihood of being forced to prematurely end the collaboration on a venture idea. To avoid these detrimental consequences and ensure the continuation of the entrepreneurial journey, entrepreneurial teams need find ways to overcome the challenges inherent to such an environment. For example, they may seek to pursue an unconventional strategy to address intense industry regulations (Holburn & Vanden Bergh, 2008), hold financial slack to provide a buffer and support them in developing their venture (Bradley et al., 2011), or invest more effort to counteract the threats stemming from their hostile environment (Breugst et al., 2020).

Although studies have identified potential strategies that entrepreneurial teams employ to tackle the challenges inherent to their perceived hostile environment, we know little about the socioemotional behaviors of entrepreneurial teams that support them in dealing with their challenges. However, the strategies entrepreneurial teams employ, and consequently their success in overcoming the challenges linked to their environment, are likely shaped by the entrepreneurial teams' socioemotional behaviors (Casciaro & Lobo, 2008). Specifically, drawing on research on the socioemotional behaviors of employees confronted with challenging environments, such as police officers (Pogrebin & Poole, 1988) or firefighters (O'Neill & Rothbard, 2017; Sliter et al., 2014), we theorize that humor affects entrepreneurial

teams' actions and behaviors, by allowing them to better cope with their challenging environments. For instance, studies show how humor contributes to employees' health and well-being (Mesmer-Magnus et al., 2012) or increases their propensity to take greater risks (O'Neill & Rothbard, 2017). Yet, to understand how humor may help entrepreneurial teams overcome the challenges arising from environmental hostility, we seek to explore to what extent team humor counteracts the positive relationship between perceived environmental hostility and the likelihood of entrepreneurial team and venture breakups. Addressing this question is important because without considering entrepreneurial teams' socioemotional behaviors like humor, we are missing a comprehensive understanding of how entrepreneurial teams can effectively deal with the challenges from their perceived hostile environment.

With our study, we provide insights into how entrepreneurial teams can mitigate the role of their perceived venture environment on the likelihood of team and venture breakups. These outcomes are crucial in entrepreneurship (Patzelt et al., 2021; Shepherd et al., 2000) because they cause entrepreneurial teams to prematurely end their collaboration on a venture idea, and thus prevent them from fulfilling their vision and reaching their ultimate goal (Preller et al., 2020). To understand the role of humor in the relationships between environmental hostility and the likelihood of team and venture breakups, we draw on research on socioemotional behaviors and particularly, the use of humor (e.g., Avolio et al., 1999). Building on prior studies, we argue that perceived environmental hostility has a positive impact on both the breakup of the entrepreneurial team through cofounder exit(s) (Foo et al., 2006; Shane & Foo, 1999) and the breakup of the venture through its ceased operations (Miller, 1994; Zahra, 1993). Team humor may mitigate this detrimental effect by helping entrepreneurial teams deal with, and thus cope with their perceived threat (O'Neill & Rothbard, 2017; Sliter et al., 2014). In doing so, team humor possibly averts the detrimental effect of perceived environmental hostility on the entrepreneurial team and the venture. We

test our theorizing relying on a sample of complete 114 entrepreneurial teams consisting of 276 cofounders.

Our study has three key contributions. First, we shed light on the alternative coping mechanism of team humor in entrepreneurship. So far, research on coping in entrepreneurship has mainly studied coping mechanisms based on self-focused emotions (e.g., Engel et al., 2021; Shepherd, Wiklund, et al., 2009). By drawing on the socioemotional behavior of team humor as a coping mechanism (e.g., Henman, 2001; Mesmer-Magnus et al., 2012; Sliter et al., 2014), we introduce a coping mechanism that occurs in a social context. Through the use of team humor, it seems that entrepreneurial teams can better deal with their external threats.

Second, we introduce the notion of team humor to the literature on entrepreneurial teams. The use of positive humor and its related behaviors, such as laughing and joking, are the basis of several studies at the workplace (Mesmer-Magnus et al., 2012). Despite the popular media emphasizing humor as an important characteristic of entrepreneurs and their ventures (e.g., Hunt, 2017; Stewart, 2013), team humor has not gained any attention in research on entrepreneurial teams. With the present study, we show that the use of humor in entrepreneurial teams can actually benefit the development of the team and the venture.

Third, we add to the literature on environmental hostility in entrepreneurship (Covin & Slevin, 1989; Zahra, 1993). The literature on (perceptions of) environmental hostility focuses on the behavioral side of addressing these threatening conditions (e.g., Bradley et al., 2011; Breugst et al., 2020). Yet, we shed light on how entrepreneurial teams deal with their threatening environment at the socioemotional level. With our study, we argue that it is not only important to understand the strategies entrepreneurial teams employ to tackle their perceived threats, but also the socioemotional behaviors entrepreneurial teams engage in can impact how successful entrepreneurial teams are with these strategies.

4.2 Theory and hypotheses

4.2.1 The breakup of the team and the venture and perceptions of environmental hostility

Entrepreneurial teams–defined as "two or more [cofounders] who pursue a new business idea, are involved in its subsequent management, and share ownership" (Lazar et al., 2020, p. 29) are confronted with many challenges in pursuit of their venture idea (see Patzelt et al., 2021 for a review). Because of these challenges, the odds of a breakup of the entrepreneurial team–that is, one or several cofounders exiting the entrepreneurial team (DeTienne, 2010)–and/or its venture–defined as the termination of a venture's operations (Shepherd et al., 2000)–are high. To better understand these breakups, research points to the importance of studying the antecedents of entrepreneurial team and venture breakups (Patzelt et al., 2021; Shepherd et al., 2019).

One condition that substantially shapes the team and the venture is the venture's industry environment, which makes it to an important antecedent to both team (Breugst et al., 2020) and venture outcomes (Covin & Slevin, 1989). Thereby, it is particularly the entrepreneurial teams' perceptions of their external surroundings that impact how they react to their environment (Milliken, 1990). Specifically, some entrepreneurial teams perceive their environment to be adverse, as for instance, they feel confronted with intense industry regulations (Holburn & Vanden Bergh, 2008), rivalry among competitors, radical changes in the industry that endanger the existence of the venture (Zahra, 1993), or limited exploitable opportunities (Covin & Slevin, 1989). Studies refer to such an "unfavorability of environmental forces for a company's business" as environmental hostility (Zahra, 1993, p. 324). Contrary to more favorable environments, perceived hostile environments are an external threat (Dean & Sharfman, 1993; Miller & Friesen, 1983) that affects both the entrepreneurial teams (Breugst et al., 2020) and their ventures (Bradley et al., 2011).

Perceptions of environmental hostility breaking the team. Perceptions of environmental hostility can impact teamwork in entrepreneurial teams (Breugst et al., 2020), because perceived hostile environments feel like a threat to the venture (Dean & Sharfman, 1993; Miller & Friesen, 1983) that entrepreneurial teams aim to overcome (Breugst et al., 2020). However, as such perceptions of environmental hostility feel like a threat, entrepreneurial teams are likely to make more mistakes and be more erratic in their strategic decision-making processes (Mitchell et al., 2011). In addition, research argues that teams' decisions become less rational when the teams try to respond to the threat (Dean & Sharfman, 1993; Elbanna & Child, 2007) and that their cognitive processing of information tends to be more chaotic, as well as their communication less open (Gladstein & Reilly, 1985). Overall, these effects of responding to threats can cause entrepreneurial teams to be less content with their entrepreneurial team and also impede their perceptions of team viability (Foo et al., 2006). In turn, both lower levels of contentment with the team and perceptions of team viability increase the chances of a team breakup (Foo et al., 2006; Shane & Foo, 1999).

Moreover, entrepreneurial teams that perceive their environments to be hostile are likely to feel higher levels of pressure and stress (Nicholls-Nixon et al., 2000). This pressure and stress may be particularly pronounced in teams that perceive their environment to be hostile, because the teams struggle to provide sufficient resources to secure the venture's continuation (Bradley et al., 2011). For instance, entrepreneurial teams are often not able to afford their favored options (Baum & Wally, 2003) or do not hold enough financial slack to build their own opportunity (Bradley et al., 2011). They may also feel increased pressure, as they might be aware that it is up to them to rapidly respond to the often unpredictable conditions of a hostile environment (Covin & Slevin, 1989). According to Baron et al. (2016), cofounders who feel intense pressure and stress are more likely to exit the entrepreneurial team to escape their wearing situation. Specifically, these cofounders may realize that they are

not able to meet the requirements necessary to tackle their perceived environment and consequently decide to withdraw from the entrepreneurial team (Baron et al., 2016). Based on these arguments, we propose that perceptions of environmental hostility are more likely to result in entrepreneurial team breakups. We thus hypothesize:

> ***Hypothesis 1.*** *The relationship between an entrepreneurial team's perception of environmental hostility and the probability of a team breakup is positive.*

Perceptions of environmental hostility breaking the venture. Perceptions of environmental hostility might not only trigger a team breakup, but also the breakup of the venture (Covin & Slevin, 1989; Zahra, 1993). By definition, the perception of environmental hostility as an unfavorable environment for a venture's operations already suggests a higher likelihood of a venture breakup (Zahra, 1993). Indeed, past research argues that entrepreneurial teams confronted with hostile environments are less likely to acquire sufficient resources to build their venture (Miller & Friesen, 1983) and to find opportunities for the growth necessary to advance the venture (Castrogiovanni, 1991; Dess & Beard, 1984). Intense rivalry or difficult regulatory environments may also hinder entrepreneurial teams from setting foot in their markets (e.g., Holburn & Vanden Bergh, 2008). As a result of their perceived hostile environment, some entrepreneurial teams might consider abandoning the threatening environment and terminating their collaboration on the venture (Foo et al., 2006).

Yet, not only objective underperformance as in the inability to provide sufficient resources or find a suitable opportunity triggers venture breakups (see above), but we argue that the entrepreneurial teams' perceptions of venture performance being threatened by their hostile environment can also lead the team to cease the operations of the venture. Particularly, in perceiving their venture's performance to be threatened, entrepreneurial teams might become less optimistic about their venture's success (Direnfeld & Roberts, 2006; Foo, 2011; Johnson & Tversky, 1983). Consequently, these entrepreneurial teams are less likely to push

through some perceived threats and instead, may more quickly feel defeated and fear their failure. They are thus rather to decide to prematurely end their collaboration on the venture (Cacciotti et al., 2016; Kollmann et al., 2017). Building on these arguments, our second baseline hypothesis suggests that the likelihood of venture breakups increases in perceived hostile environments:

> ***Hypothesis 2.*** *The relationship between an entrepreneurial team's perception of environmental hostility and the probability of a venture breakup is positive.*

4.2.2 Team humor as a coping mechanism in perceived hostile environments

Even though perceptions of environmental hostility pose a threat to the survival of both the entrepreneurial team (Foo et al., 2006; Shane & Foo, 1999) and its venture (Covin & Slevin, 1989; Zahra, 1993), the behaviors entrepreneurial teams engage in to navigate these challenging conditions remain unclear (e.g., Breugst et al., 2020). Building on research on socioemotional behaviors that highlights their importance in the execution of tasks (Casciaro & Lobo, 2008; Knight et al., 2020; O'Neill & Rothbard, 2017), we argue that socioemotional behaviors influence how perceived environmental hostility impacts the team and the venture. Specifically, socioemotional behaviors trigger positive interpersonal bonds and supportive behaviors within the entrepreneurial teams, which enable the teams to more effectively cope with their situation. Thus, they represent an important contingency in the relationships between an entrepreneurial team's perceptions of environmental hostility with team and venture breakups. Indeed, a recent review notes that entrepreneurial teams with more positive interpersonal bonds are rather to "persist in the face of the inevitable roadblocks or setbacks", because they may be able to more effectively engage in teamwork, such as by sharing information and coordinating effectively (Knight et al., 2020, p. 250).

Past studies on socioemotional behaviors in organizations particularly emphasize the importance of positive humor and its associated behaviors, such as laughter and joking at the

workplace (Mesmer-Magnus et al., 2012; Romero & Cruthirds, 2006). Positive humor in teams, that is "mutually amusing communications, wherein communications intended by the speaker(s) to be amusing are also perceived to be amusing by recipients" is a socially embedded phenomenon that enfolds in workplace interactions (Mesmer-Magnus et al., 2012, p. 158; adapted from Holmes & Marra, 2002). As such, the use of humor may foster positive emotions and beneficial team interaction processes that impact both team- and venture-related outcomes (see Mesmer-Magnus et al., 2012 for a meta-analysis). While studies generally acknowledge the importance of humorous behaviors at the workplace for employee well-being and their contentment with their leader and/or job (e.g., Avolio et al., 1999; Lehmann-Willenbrock & Allen, 2014), especially research on employees confronted with challenging settings, such as police officers or firefighters, also points towards the use of humor as a socioemotional behavior at the workplace helping employees buffer the potentially detrimental effects of their workplace surroundings (O'Neill & Rothbard, 2017; Pogrebin & Poole, 1988; Sliter et al., 2014). For instance, Pogrebin and Poole (1988) show how police officers use humor to empathize with one another's feelings of fear in threatening situations, and thus feel better. Sliter et al. (2014) argue that humor acts as a coping mechanism that buffers the detrimental effects of traumatic stressors on employee health at the workplace. O'Neill and Rothbard (2017) find that firefighting units characterized by the regular use of humor, joking and laughter are rather to have higher performance through faster response times.

Building on these insights, we suggest that team humor can mitigate the positive relationships between hostile environments and team and venture breakups, by serving as a coping mechanism to entrepreneurial teams (e.g., Sliter et al., 2014), and thus helping the entrepreneurial team to overcome the challenges inherent to their environment. Humor may help entrepreneurial teams to respond to the threatening situation that they perceive

themselves to be in (Uy et al., 2013), because it enables them to laugh about their situation and more effectively manage it (Mesmer-Magnus et al., 2012). By acting as a coping mechanism, we argue that this socioemotional behavior becomes an important contingency in the relationships between an entrepreneurial team's perception of environmental hostility and the likelihood of a team and venture breakup.

Team humor and its effect on perceived hostile environments breaking the team. Team humor might decrease the positive relationship between perceived environmental hostility and the likelihood of a team breakup because entrepreneurial teams with higher levels of team humor might be able to better cope with their perceived hostile environment. Particularly, early research on humor in challenging workplace settings suggests that the use of humor allows teams to psychologically distance themselves from their perceived immediate threat (Coser, 1959). In doing so, entrepreneurial teams might be able to more diligently process information and reconsider their alternatives, which subsequently allows them to engage in more open communication (Gladstein & Reilly, 1985). Additionally, as the threat seems more distant, entrepreneurial teams' decisions are less likely to be erratic or irrational (Mitchell et al., 2011). We assume that through their more open communication and more diligent information processing for decision-making, entrepreneurial teams will rather feel as though they can tackle the challenges stemming from their perceived hostile environment. Compared to teams with lower levels of team humor, in teams with higher levels of team humor, perceptions of environmental hostility are less likely to impede the entrepreneurial teams' contentment with their team and their perceptions of team viability. For this reason, we argue that cofounders in entrepreneurial teams with higher levels of team humor are less likely to exit their entrepreneurial team.

Additionally, team humor can act as a coping mechanism by facilitating teams' social bonding (Cooper, 2008), which is likely to reduce the entrepreneurial teams' experience of

stress and pressure (Mesmer-Magnus et al., 2012). Specifically, research shows how firefighter teams working in units characterized by the regular use of humor, fun, and laughter were more likely to be able to cope with their work context, as they had the possibility to relieve any stress or pressure by expressing the instance in a humorous manner (O'Neill & Rothbard, 2017). Similarly, Sliter et al. (2014) argue that by facilitating social bonding, team humor reduces the physiological impact of stressors. Firefighters were thus less likely to experience health issues. In addition, Mesmer-Magnus et al. (2012) find that positive humor mitigates the positive relationship between employees' workplace stress and burnout. Building on these insights, we argue that entrepreneurial teams with higher levels of team humor possibly feel less intense pressure and stress stemming from their perceived hostile environment. Instead, cofounders are more embedded in their entrepreneurial team and are able to bounce their feelings of pressure and stress off each other. In doing so, we assume that they are less likely to withdraw themselves from the team. On the contrary, entrepreneurial teams that do not rely on the use of humor are less able to cope with perceived environmental hostility. They tend to experience higher levels of pressure and stress, which are rather to trigger team breakups. We thus hypothesize:

> ***Hypothesis 3.*** *Entrepreneurial teams' humor mitigates the positive relationship between a team's perception of environmental hostility and the probability of a team breakup such that with higher levels of team humor, the relationship becomes less positive.*

Team humor and its effect on perceived hostile environments breaking the venture. Increased levels of team humor might also decrease the positive relationship between entrepreneurial teams' perceptions of environmental hostility and the breakup of the venture. First, prior research shows that team humor is more likely to enable teams to be more creative and open to new ideas (Mesmer-Magnus et al., 2012; Robert & Wilbanks, 2012). As perceptions of environmental hostility commonly require entrepreneurial teams to find non-

conventional solutions to counteract their challenges stemming from these perceptions, such as pushing through new industry regulations at a political level (Holburn & Vanden Bergh, 2008) or quitting the price-based type of competition that dominates the market (Covin et al., 2000), we assume that increased levels of creativity and openness to new ideas support teams in finding the solutions necessary to secure the continuation of their ventures' operations. Thus, team humor will help entrepreneurial teams to overcome the challenges that their venture faces in hostile environments.

Second, increased levels of team humor might also decrease the positive relationship between perceptions of environmental hostility and the likelihood of a venture breakup, as increased levels of team humor likely encourage entrepreneurial teams' optimism about their venture (Martin et al., 2003; Mesmer-Magnus et al., 2012). Hence, team humor may act as a coping mechanism, by enabling entrepreneurial teams to see their ventures in a more positive light despite the threats from environmental hostility (Folkman & Lazarus, 1980). Rather than quickly feeling defeated and fearing their failure due to perceptions of environmental hostility, entrepreneurial teams using humor, and thus making jokes about their situation or laughing together, will see the prospects of their venture in a more optimistic manner (Direnfeld & Roberts, 2006; Foo, 2011; Johnson & Tversky, 1983). We assume that these entrepreneurial teams are more likely to push through their challenges and seek for possibilities to continue the operations of their venture. On the contrary, entrepreneurial teams that rely less on humor tend to find less creative solutions to overcome the challenges imposed by environmental hostility. They are also rather to feel defeated by their perceptions of underperformance stemming from their environment. Hence, we propose:

> ***Hypothesis 4.*** *Entrepreneurial teams' humor mitigates the positive relationship between a team's perception of environmental hostility and the probability of a venture breakup such that with higher levels of team humor, the relationship becomes less positive.*

4.3 Research methods

4.3.1 Research design and sample

To address our research question and test the hypotheses, we collected data on a sample of all 276 active cofounders of 114 entrepreneurial teams and their ventures. In a first step, we recruited complete entrepreneurial teams to take part in a questionnaire. To do so, we sought for entrepreneurial teams, that is, two or more active cofounders that have established (or initiated) a legal form of their venture (Lazar et al., 2020). We looked for these teams in major metropolitan areas in a central European country and screened the portfolios of incubators or venture capitalists, public company databases, start-up events, and common social networks for founders. After compiling a list of all ventures and gathering data on the entrepreneurial teams and their ventures (i.e., venture name, cofounder names, location, address, summary of the business) from websites, or via telephone calls or onsite visits, we identified 593 entrepreneurial teams and their ventures that matched our sampling criteria. We then contacted the teams and asked whether they wanted to take part in our study. In total, 118 entrepreneurial teams agreed to participate. We visited these teams in their premises and all active cofounders of each team answered the questionnaire on our digital devices. After our visits, we excluded the data of two entrepreneurial teams due to technical issues during our visits, which left us with the questionnaires of all active cofounders of 116 entrepreneurial teams.

In a second step, we collected secondary data for all participants two years after the initial questionnaire. Specifically, we relied on secondary sources, such as firm registries and social network sites for each venture and all cofounders. For each venture, we sought to find out whether it continued to operate. With regard to the entrepreneurial teams, we wanted to gain insights into which cofounders were still part of the entrepreneurial teams. In this step, we excluded two further teams from the sample, as we lacked sufficient identifying criteria of

the cofounders from the initial questionnaire and thus were not able to trace back team member changes. Overall, we accumulated a final dataset including the responses of all 276 active cofounders of 114 entrepreneurial teams.

The cofounders in our final sample were, on average, 31.23 (SD: 6.35) years old at the time of the initial questionnaire and 14.13 percent of the cofounders were females. 8.33 percent had completed high school education, 4.71 percent had completed an apprenticeship, 72.46 percent had received a Bachelor's or Master's degree, and 14.49 percent had completed a PhD or an MBA. On average, the teams were composed of 2.76 cofounders (SD: 0,91) at the time of the initial questionnaire. At a venture-level, on average, the ventures were 2.21 years old (SD: 1.13). 28.07 percent of the ventures were in the early commercialization stage, whereas 71.93 percent of the ventures were already in the later growth and stability stages. 85.96 percent of the ventures were in a service-based industry, and 14.04 percent were in a goods-manufacturing industry.

4.3.2 Measures

Team breakup. We coded our first dependent variable, team breakup, using the definition by DeTienne, that is, "[co]founders of privately held firms leav[ing] the firm they helped to create" (2010, p. 203). At a team-level, we dummy-coded the variable as 1 if (a) cofounder(s) left the entrepreneurial team, and thus a team breakup took place within two years of the distribution of the questionnaire. The variable takes on the value 0 if the team did not break up. As we are interested in how the entrepreneurial environment disrupts membership in entrepreneurial teams, we also coded the variable as 0 if an entrepreneurial team terminated the venture, but continued to work together as the team, for example by founding a new venture. Although the venture broke in these cases, the team did not.

Venture breakup. We dummy-coded our second dependent variable drawing on prior studies that define a venture breakup as the venture ceasing its operations (e.g., De Cock et

al., 2020; Hiatt & Sine, 2014; Shepherd et al., 2000). The variable takes on the value 1 if the venture ceased its operations within two years of distributing the initial questionnaire. It is coded as 0 if the venture continued to operate two years after the distribution of the questionnaire.

Perception of environmental hostility. We measured the entrepreneurial team's perception of environmental hostility using an established scale by Green et al. (2008). Each cofounder of the entrepreneurial team rated their agreement with six survey items translated into the cofounders' native language in a back-and-forth procedure (Brislin, 1970). The items, such as "competitive intensity is high in my industry", were assessed on a 7-point Likert scale. The average Cronbach's alpha of the scale is 0.68 which can still be considered as an acceptable value (Hair et al., 2009). In a next step, we calculated a cofounder's perception of environmental hostility by averaging their answers of the six items. We then averaged the results of all cofounders of an entrepreneurial team to obtain a team-level measure of their perception of environmental hostility. This aggregation is justified, as the within-group agreement measure $r_{wg}(J)$ for the perception of environmental hostility is 0.82 and thus lies above the widely accepted cut-off value of 0.7 (James et al., 1984).

Team humor. We measured the use of humor in entrepreneurial teams using a scale by Avolio et al. (1999), which we adapted to capture cofounders perceptions of their entrepreneurial team. Five survey items translated into the cofounders' native language indicated their use of humor. For example, we asked cofounders to assess "in the entrepreneurial team, we use humor to make us laugh at ourselves when we are too serious" or "in the entrepreneurial team, I use a funny story to turn an argument in my favor" on a 7-point Likert scale. The average reliability (Cronbach's alpha) of the scale is 0.84 (Hair et al., 2009). We first obtained an individual-level measure of the use of humor in the entrepreneurial team by averaging the answers of all five items for each cofounder. As the

within-group agreement measure $r_{wg}(J)$ is 0.72 and thus again above the cut-off value of 0.7 (James et al., 1984), we then averaged all cofounders' results of an entrepreneurial team to obtain a team-level measure of the use of humor, which we label team humor.[17]

Control variables. We added several control variables at the team- and venture-level. At the team-level, we controlled for team size and team diversity. First, *team size* may affect team and venture breakups. Particularly, the likelihood of a team breakup depends on the size of the entrepreneurial team (DeTienne, 2010). In addition, the ventures of larger entrepreneurial teams are less likely to break, because these teams accumulate higher entrepreneurial capabilities, which makes them more successful in acquiring resources (Strotmann, 2007). We also controlled for *team diversity*, as greater diversity has been connected to an increased rate of team breakups (Hellerstedt et al., 2007), as well as impacts group dynamics in entrepreneurial teams, and thus venture breakups (Knight et al., 2020). We included two different forms of team diversity. First, we relied on gender diversity operationalized as the standard deviation of the cofounders' gender (Harrison & Klein, 2007). Second, we used a combined measure for the functional diversity consisting of a cofounder's task-related characteristics (Knight et al., 2020). In line with Boone and colleagues (2020), we measured functional diversity using four dimensions: (1) the diversity in the educational degree level, (2) diversity in the educational degree area, (3) diversity in industry experience, and (4) diversity in entrepreneurial experience. We operationalized each dimension using the most appropriate diversity measure (Harrison & Klein, 2007). Like Boone and colleagues (2020), the disparity in the degree level was calculated with the coefficient of variation. Variation in the area of education was operationalized using the Blau's index (Blau, 1977). Both the separation in years of industry experience and the separation in the number of

[17] The complete scales of the study are presented in Appendix 5.

ventures founded prior to the current one were operationalized with the standard deviation. We averaged the standardized values of all four dimensions to obtain an overall value of the functional diversity in the team.

At a venture-level, we controlled for *venture age* and *stage* because these variables are related to team and venture breakups. First, as ventures mature, the initial team formation process comes to an end and team breakups are less likely to occur (Lazar et al., 2020). In addition, as the venture advances from one stage to the next, experiential knowledge increases, which might reduce the probability of a venture breakup (Yli-Renko et al., 2020). Second, we accounted for potential confounding *industry* effects (DeTienne & Cardon, 2012; Plummer et al., 2020), by assigning a two-digit NAICS code to all ventures in our sample (e.g., Allison et al., 2015; Plummer et al., 2020). For the classification, we used the 2012 NAICS industry sector definitions and researched the ventures' websites and descriptions available on the internet. Our classification of industry sectors resulted in the following dummy-coded categories: (1) manufacturing, (2) wholesale trade, (3) retail trade, (4) information, (5) finance and insurance, (6) professional, scientific, and technical services, (7) health care and social assistance, (8) arts entertainment and recreation, and (9) accommodation and food services. Finally, we also included control variables to account for venture performance. Because venture performance predicts both team (Wennberg et al., 2010) and venture breakups (Gimeno et al., 1997), we added two proxies to operationalize performance. First, we measured *sales* with a dummy (coded as 1 if the venture already generates sales, 0 otherwise), as high sales figures are rare in new ventures (Carter et al., 1996). In addition, *external investments* by venture capitalists or business angels indicate whether external stakeholders believe in the venture and thus suggest higher venture performance (Haeussler et al., 2019). We included a dummy, which we coded as 1 if the venture received investor funding and 0 if not.

4.3.3 Statistical analysis

To examine the impact of environmental hostility and team humor on the probability of team and venture breakups, we specified two different generalized structural equation models at the team-level, which is identical to the venture-level in our setting. With the first model, we estimated the paths leading to team breakups and in a second model, we estimated the paths to venture breakups. As both our dependent (endogenous) variables are binary and only take on values of 0 and 1, we used the gsem command in Stata 16 to fit a logistic regression in both models. To enable a meaningful interpretation of the results, we centered all continuous independent variables at their mean (Cohen et al., 2003). The models are estimated using the maximum likelihood method. We produced Huber-White robust standard errors to account for heteroscedasticity.

4.4 Results

4.4.1 Hypothesis testing

Table 6 presents the descriptive statistics and Table 7 provides an overview of the correlations between the variables included in the analyses. Table 8 shows the results of the estimated logit models. Particularly, Model 1 includes the control variables of the study. In Model 2, we add the direct effects. Model 3, the full model, additionally displays the interaction effects hypothesized in the present study. For Model 3, we computed a Wald test and found it to be significant at $p < 0.05$, which indicates that including the interaction terms significantly improves model fit. Hence, we draw on the full model, Model 3, to interpret our results.

Table 6. Descriptive statistics

Sample description	M	SD
Team breakup	0.31	0.46
Venture breakup	0.41	0.49
Environmental hostility	4.19	0.84
Team humor	4.70	1.04
Team size	2.76	0.91
Gender diversity	0.16	0.28
Functional diversity	0.75	0.69
Venture age	2.21	1.23
Venture stage	0.28	0.45
Sales	0.76	0.43
External funding	0.28	0.45
Industry		
Manufacturing	0.14	0.35
Wholesale trade	0.05	0.22
Retail trade	0.02	0.13
Information	0.27	0.45
Finance and insurance	0.04	0.21
Professional, scientific, and technical services	0.37	0.48
Health care and social assistance	0.02	0.13
Arts, entertainment, and recreation	0.04	0.21
Accomodation and food services	0.04	0.21

Notes. 276 Individuals, 114 Teams

Table 7. Correlations

	Variables	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
1	Team breakup	1.00																		
2	Venture breakup	0.56***	1.00																	
3	Environmental hostility	0.20*	0.22*	1.00																
4	Team humor	–0.08	0.04	–0.01	1.00															
5	Team size	0.14	–0.01	0.06	0.08	1.00														
6	Gender diversity	0.02	–0.09	–0.10	0.22*	–0.05	1.00													
7	Functional diversity	–0.12	–0.09	0.02	–0.14	–0.14	–0.00	1.00												
8	Venture age	–0.17†	–0.18†	0.04	–0.07	0.01	–0.08	0.25**	1.00											
9	Venture stage	0.15	0.13	0.04	0.04	0.03	–0.03	–0.02	–0.31***	1.00										
10	Sales	–0.33***	–0.30***	–0.13	–0.09	–0.05	0.02	–0.04	0.20*	–0.52***	1.00									
11	External funding	0.07	0.05	0.10	–0.06	–0.05	–0.12	0.11	–0.11	0.09	-0.02	1.00								
	Industry																			
12	Manufacturing	0.12	0.06	0.07	–0.03	–0.01	0.02	–0.03	–0.05	0.20*	–0.07	–0.03	1.00							
13	Wholesale trade	0.04	0.01	–0.09	0.08	0.02	0.05	–0.01	–0.17†	–0.06	0.04	0.12	–0.10	1.00						
14	Retail trade	–0.11	–0.09	–0.05	–0.05	–0.04	0.09	–0.10	–0.08	0.07	0.07	–0.08	–0.05	–0.03	1.00					
15	Information	0.05	0.11	0.00	0.03	–0.06	–0.14	0.03	0.02	0.01	–0.08	0.01	–0.25**	–0.14	–0.08	1.00				
16	Finance and insurance	–0.09	–0.14	0.17	–0.04	0.10	–0.01	–0.02	0.28**	–0.13	0.12	0.15	–0.09	–0.05	–0.03	–0.13	1.00			
17	Professional, scientific and technical services	–0.16†	–0.07	–0.08	0.06	–0.02	0.06	0.10	0.08†	–0.11	0.04	–0.19*	–0.31***	–0.18†	–0.10	–0.47***	–0.16†	1.00		
18	Health care and social assistance	0.16†	–0.09	–0.04	–0.05	0.18†	0.09	–0.14	–0.13	0.07	0.07	0.21*	–0.05	–0.03	–0.02	–0.08	–0.03	–0.10	1.00	
19	Arts, entertainment, and recreation	–0.01	–0.05	–0.12	–0.00	0.01	0.07	–0.04	–0.04	0.06	–0.08	–0.13	–0.09	–0.05	–0.03	–0.13	–0.05	–0.16†	–0.03	1.00
20	Accomodation and food services	0.08	0.14	0.17	–0.16†	–0.04	–0.12	–0.05	–0.07	–0.04	0.02	0.25**	–0.09	–0.05	–0.03	–0.13	–0.05	–0.16†	–0.03	–0.05

Notes. N = 114 teams; Two-tailed significance tests are reported: *** p < .001; ** p < .01; *p < .05; † p < 0.1

§ 1 = Early Stage, 0 = Late Stage

‡ 1= Yes, 0 = No

1 = BA or VC funding; 0 = No BA or VC funding

$ Reference category: Professional, Scientific, and Technical Service

Table 8. Logit models for the prediction of team and venture breakups

	Model 1						Model 2						Model 3					
les	→ Team breakup			→ Venutre breakup			→ Team breakup			→ Venture breakup			→ Team breakup			→ Venture breakup		
	β	**SE**	**a.m.e.**	**β**	**SE**	**a.m.e.**	**β**	**SE**	**a.m.e.**	**β**	**SE**	**a.m.e.**	**β**	**SE**	**a.m.e.**	**β**	**SE**	**a.**
ot	0.78	0.62		0.12	0.65		0.77	0.63		0.08	0.67		1.30†	0.73		0.25	0.70	
ol																		
es																		
ize	0.27	0.24	0.05	–0.04	0.23	–0.01	0.26	0.24	0.05	–0.05	0.22	–0.01	0.37	0.29	0.06	0.00	0.22	
(S.D.)	0.31	0.95	0.06	–0.64	0.94	–0.11	0.28	0.95	0.05	–0.72	0.98	–0.12	0.68	0.96	0.11	–0.77	1.03	
nal y	–0.33	0.36	–0.06	–0.40	0.38	–0.07	–0.32	0.33	–0.06	–0.44	0.36	–0.07	–0.50	0.28	–0.08	–0.43	0.33	
e age	–0.12	0.21	–0.02	–0.22	0.22	–0.04	–0.15	0.21	–0.03	–0.26	0.22	–0.04	–0.23	0.22	–0.04	–0.31	0.23	
e stage§	–0.52	0.64	–0.10	–0.34	0.68	–0.06	–0.59	0.67	–0.11	–0.34	0.68	–0.06	–0.93	0.79	–0.15	–0.51	0.72	
	–1.92**	0.62	–0.37***	–1.47**	0.62	–0.26**	–1.87**	0.63	–0.35***	–1.40*	0.63	–0.24*	–2.37**	0.75	–0.39***	–1.55*	0.68	
nding#	0.08	0.60	0.01	0.18	0.57	0.03	0.07	0.59	0.02	0.20	0.57	0.04	0.16	0.57	0.03	0.26	0.57	
y$																		
cturing	1.09	0.71	0.23	0.41	0.70	0.08	1.00	0.70	0.20	0.25	0.64	0.05	0.81	0.71	0.14	0.11	0.64	
ale	0.73	0.95	0.15	0.16	1.07	0.03	0.85	0.94	0.17	0.19	1.05	0.04	1.27	1.00	0.23	0.33	1.12	
rade	–15.33***	0.88	–0.32***	–15.23***	0.91	–0.28***	–15.43***	0.90	–0.33***	–15.40***	0.97	–0.30***	–14.08***	0.93	–0.36	–13.97***	1.05	–0
ation	0.60	0.53	0.12	0.43	0.53	0.08	0.61	0.55	0.13	0.40	0.55	0.08	0.63	0.60	0.11	0.38	0.57	
e and ce	–0.32	1.45	–0.06	–15.01***	0.79	–0.28***	–0.68	1.50	–0.11	–15.68***	0.83	–0.30***	–1.07	1.39	–0.16	–14.72***	0.78	–0
care & ssist.	17.06***	1.09	0.68***	–15.58***	1.07	–0.28***	17.40***	1.19	0.67***	–15.86***	1.22	–0.30***	15.44***	1.46	0.64***	–15.08***	1.18	–0
ntert., eation	–0.02	0.76	–0.01	–0.75	1.26	–0.12	0.19	0.77	0.04	–0.71	1.16	–0.11	–0.47	0.93	–0.07	–1.06	1.25	
odation serv.	1.27	1.06	0.27	1.16	1.28	0.24	0.94	1.07	0.19	0.74	1.28	0.14	0.22	1.02	0.04	0.49	1.33	
ffect$																		
stility							0.50†	0.28	0.09†	0.58†	0.31	0.09*	0.64*	0.30	0.11*	0.69*	0.33	
ation																		
umor													–0.41†	0.24	–0.07†	0.08	0.22	
nmental y × umor													–0.81**	0.29	0.11*	–0.61*	0.28	
eams	114						114						114					
	310.26						306.79						299.98					
elihood	–123.13						–119.39						–111.98					

Notes. a.m.e. = average marginal effects; AIC = Akaike Information Criterion. Models with lower values of AIC are preferred; All standard errors are robust standard errors. Two-tailed significance tests are reported: *** p < .001; ** p < .01; *p < .05; † p < 0.1.

§ 1 = Early Stage, 0 = Late Stage

‡ 1= Yes, 0 = No

1 = BA or VC funding; 0 = No BA or VC funding

$ Reference category: Professional, Scientific, and Technical Service

Hypotheses 1 and 2 predict that the relationships between an entrepreneurial team's perception of environmental hostility and the probability of a team breakup (H1) and the probability of a venture breakup (H2) are positive. We find support for both baseline hypotheses in Model 3. The sign of environmental hostility is positive and significant in the prediction of the probability of a team breakup (β=0.64, p=0.04). It is also positive and significant in the prediction of the probability of a venture breakup (β=0.69, p=0.03). However, as "the effect of a unit change in an explanatory variable on the dependent variable does not equal the variable's model coefficient" in models with binary dependent variables (Wiersma & Bowen, 2009, p. 681), we follow prior work and report the average marginal effects for each variable (Plummer et al., 2016; Renko et al., in press; Yli-Renko et al., 2020). Increasing environmental hostility by one standard deviation, on average, increases the probability of a team breakup by 11% and the likelihood of a venture breakup by 10%.

Hypothesis 3 predicts that entrepreneurial teams' humor mitigates the positive relationship between a team's perception of environmental hostility and the probability of a team breakup such that with higher levels of team humor, the relationship becomes less positive. The coefficient of the interaction effect as well as the average marginal effect (at the mean) are significant in Model 3. However, to fully understand the interaction effect, we follow Hoetker (2007) and Greene (2010) and plot the effect of environmental hostility on the probability of team breakups with low (minimum), medium (mean) and high (maximum) levels of team humor in Figure 5. In more hostile environments, the interaction effect becomes less positive with rising levels of team humor, and even flips for teams with high levels of humor. Hence, our findings provide support for Hypothesis 3.

Finally, Hypothesis 4 predicts that entrepreneurial teams' humor mitigates the positive relationship between a team's perception of environmental hostility and the probability of a venture breakup such that with higher levels of team humor, the relationship becomes less

positive. The coefficient of the interaction effect and the average marginal effect (at the mean) are significant in Model 3. Figure 5 offers a graphical representation of the effect of environmental hostility on the probability of venture breakups under low (minimum), medium (mean), and high (maximum) levels of team humor (Greene, 2010; Hoetker, 2007). While the relationship is less positive with rising levels of team humor, it flips and even becomes negative for high levels of team humor. Hence, we find support for Hypothesis 4.

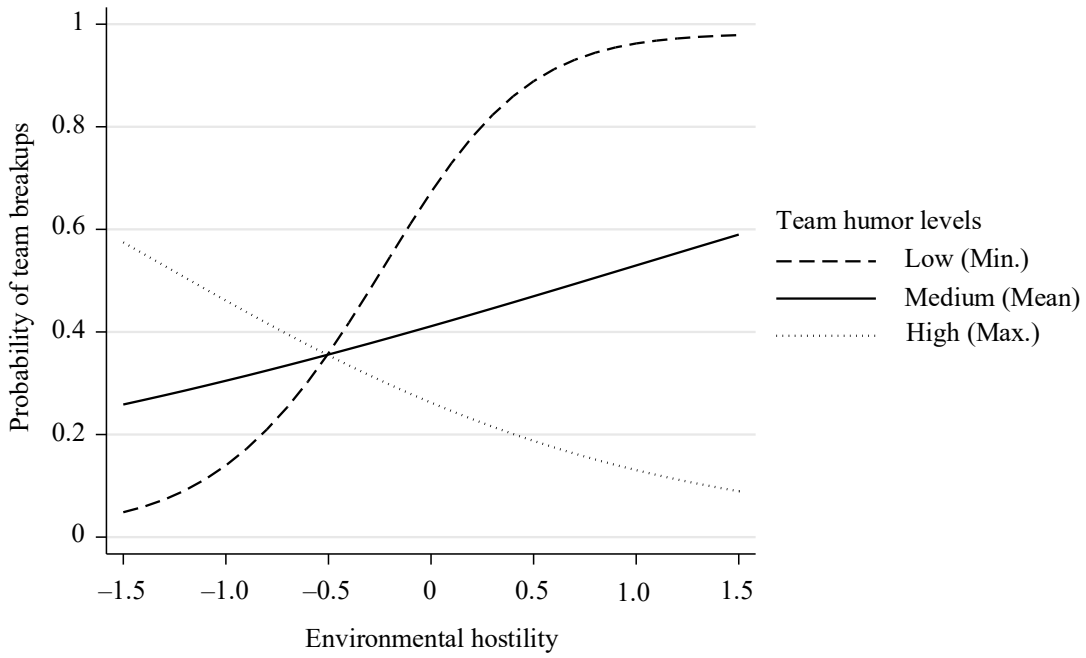
4.4.2 Robustness checks

We conducted supplementary analyses to check the robustness of our results. First, we calculated two alternative model specifications. We estimated the full model–Model 3–with a probit regression, because probit models can also be used to model the occurrence of binary outcomes (Hoetker, 2007). In addition, we approximated the models using a linear regression. Even though distortions of the results are possible when using linear regressions to model two alternative outcomes, these biases should not substantially alter the results (Johnson & Creech, 1983). In the linear regression, we accounted for partial correlations between the error terms of the dependent variables. Overall, the patterns and significance of the results remained the same as those reported above in both alternative model specifications.

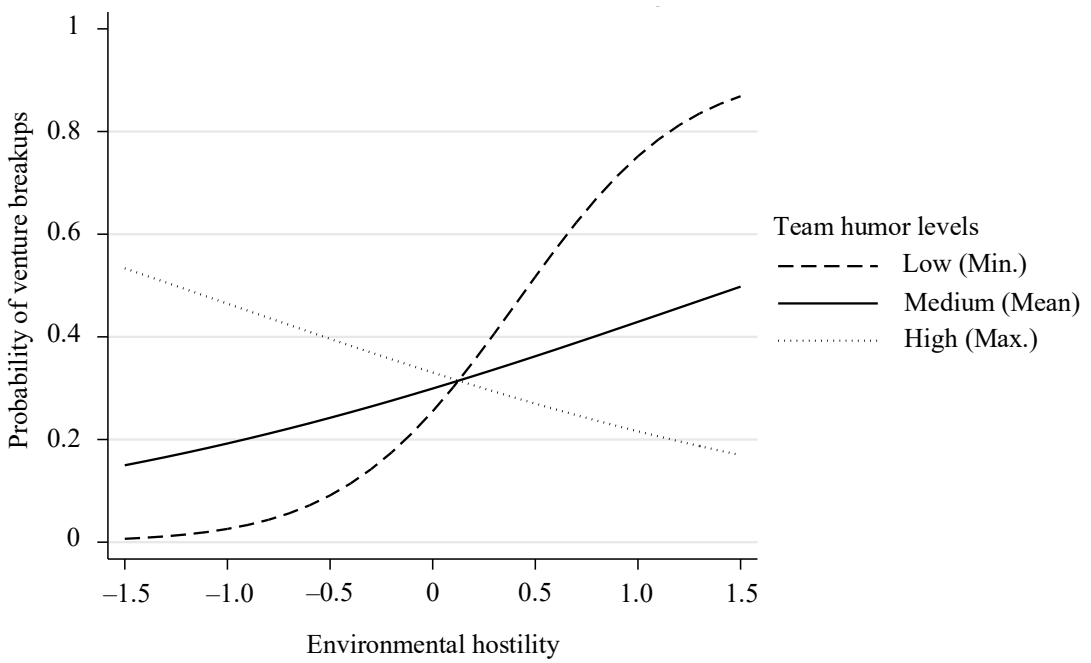
Next, to further rule out that the correlation of our dependent variables ($r = 0.56$, $p = 0.00$) biases our results, we tested the models using a subset of our sample. Particularly, we aimed to gain insights into Hypotheses 1 and 3 for surviving ventures only. To do so, we tested the effects of environmental hostility and team humor on the probability of a team breakup for the surviving ventures. Even though our sample size was decreased to 79 teams (the remaining 35 ventures experienced venture breakups), the pattern and significance of our main and interaction effect remained unchanged, which further supported the robustness of our results.

Figure 5. Effects of environmental hostility on (1) the probability of team breakups and (2) the probability of venture breakups with low, medium and high levels of team humor

(1)



(2)



Third, given the discussion about the value of control variables in regression analyses (Becker, 2005; Spector & Brannick, 2011), we tested the full models without control variables. Although we did not account for any theoretically motivated variables that potentially confound our relationships, the results remained robust in both their significance and direction.

Last, we estimated the models using additional control variables. Particularly, perceptions of team performance might impact how the entrepreneurial team sees the environment (Milliken, 1990). If an entrepreneurial team perceives itself to be performing well, the team may rather feel as though it can tackle the environment and thus perceive it to be less hostile. Again, our results remained stable despite including the additional control variable.[18]

4.5 Discussion

Because entrepreneurial team and venture breakups are detrimental outcomes of the entrepreneurial journey, but frequently occur, past research points to the importance of better understanding their underlying causes. Specifically, the venture's industry environment plays a crucial role in promoting such breakups (Foo et al., 2006; Miller, 1994; Shane & Foo, 1999; Zahra, 1993). With the present study, it is our main objective to shed light on a coping mechanism that can mitigate the detrimental effects of perceptions of environmental hostility on entrepreneurial teams' and ventures' survival. Our findings suggest that team humor can help entrepreneurial teams to overcome the detrimental effects of perceived environmental hostility on the breakup of the team and the venture. Surprisingly, at very high levels of team humor, the relationships even flipped and higher levels of perceived environmental hostility reduced the likelihood of breakups. Our findings contribute to a better understanding of how

[18] Results of all robustness checks are displayed in Appendix 6.

entrepreneurial teams can cope with the potentially detrimental effects of their threatening environment.

4.5.1 Theoretical implications

Our study contributes to the literatures on coping in entrepreneurship, entrepreneurial teams, and environmental hostility. First, we extend research on coping in entrepreneurship. Studies have mainly focused on the importance of coping mechanisms in supporting the entrepreneurs' recovery process from failure (Jenkins et al., 2014; Shepherd, Covin, et al., 2009; Singh et al., 2007; Ucbasaran et al., 2013), while research on how entrepreneurs cope with obstacles and threats during the entrepreneurial journey remains scarce (Engel et al., 2021). Our study sheds light on how entrepreneurial teams can deal with threats to mitigate failure in the first place. By researching coping during the entrepreneurial journey and not as coping with a failed entrepreneurial journey, we show how coping not only impacts entrepreneurs' personal and physical well-being (e.g., Patzelt & Shepherd, 2011; Uy et al., 2013), but that effective coping also affects team- and venture-level outcomes. Coping might thus even reduce the detrimental consequences of perceived threats. This finding is important, as it extends the view that coping is important for entrepreneurs and highlights that it also plays a key role in the development of the team and the venture. Without employing coping mechanisms in dealing with the presence of perceived threats, entrepreneurial teams might not be able to stand up to their threats and instead, break as their consequence. Yet, if entrepreneurial teams can draw on team humor as a beneficial socioemotional behavior to support them in working through their perceived threats as a team, they rather tend to persist in the face of their threats, which might even increase their chances of being successful.

Moreover, we shed light on the alternative coping mechanism of team humor in entrepreneurship. So far, for instance, Shepherd et al. (2009) have explained how grief regulation and grief normalization allow entrepreneurs to cope with projects' failure. Further,

Engel et al. (2021) have shown how self-compassion helps entrepreneurs manage their fear of failure. These coping mechanisms are based on self-focused emotions that entrepreneurs employ to manage their perceived threats and stressors as individuals. By drawing on the socioemotional behavior of team humor as a coping mechanism (e.g., Henman, 2001; Mesmer-Magnus et al., 2012; Sliter et al., 2014), we introduce an alternative effective coping mechanism, and more importantly, one that occurs through interactions in a social context. Considering coping in a social context is particularly relevant, as the majority of ventures are founded and run by entrepreneurial teams (Ruef, 2010). Thus, entrepreneurial teams need to overcome their perceived threats together. We argue that entrepreneurial teams can engage in coping through the use of team humor, which evokes positive emotions and beneficial team interaction processes. Team humor thus supports entrepreneurial teams in dealing with their perceived threats. By using team humor, entrepreneurial teams reduce the detrimental effects of perceived threats and thereby, jointly overcome them.

Complementing this social component of coping, we also more generally contribute to the emergent theory on entrepreneurial coping. Early on, Boyd and Gumpert (1983) already emphasized the importance of coping in entrepreneurship. More recently, Patzelt et al. (2011) introduced the notion of problem- and emotion-focused coping in overcoming the negative emotions inherent to entrepreneurship. Uy et al. (2013) distinguish between active- and avoidance coping in achieving personal well-being. Finally, Engel et al. (2021) introduce the notion of self-compassion, which helps to counteract founders' fear of failure in face of threats. We introduce team humor as an alternative coping mechanism at the team-level. Thereby, we add a new layer to the literature and argue that cofounders of entrepreneurial teams cannot only cope individually with their threats, but also in their entrepreneurial team. We suggest future research to build on these different levels of coping and study if and how they are connected to one another.

Our study also contributes more broadly to the literature on entrepreneurial teams. First, we address calls in entrepreneurship to better understand what precedes entrepreneurial team- and venture-breakups (Patzelt et al., 2021.; Shepherd et al., 2019). These outcomes are highly relevant in entrepreneurship research. Particularly, team breakups are disrupting for the remaining entrepreneurial team. They are organizationally challenging because the team needs to take over the tasks and responsibilities of the leaving cofounder, and they are emotionally challenging because a team needs to deal with the negative interaction spiral that often precedes such breakups (Li & van Knippenberg, 2021). Similarly, venture breakups are disrupting because entrepreneurial teams that decide to discontinue their venture idea consequently lose the venture they have worked on, which prevents them from reaching their ultimate goal (Shepherd, 2003). Hence, it is of utmost importance to avoid such breakups. While past research has identified potential antecedents leading up to these breakups, such as the venture's environment (Covin & Slevin, 1989), our study contributes to a better understanding of how entrepreneurial teams can mitigate the likelihood of both types of breakups at the same time. By studying both variables simultaneously instead of individually, we provide a more holistic picture of how entrepreneurial teams can prevent these breakups from occurring. Specifically, our study reveals how entrepreneurial teams' use of humor helps them to stick together and to overcome their perceived threat.

Further, we introduce the notion of team humor to the literature on entrepreneurial teams. The use of positive humor and its related behaviors, such as laughing and joking, are the basis of several studies at the workplace (Mesmer-Magnus et al., 2012). For instance, studies examine the effects of humor in leader-follower relationships (e.g., Avolio et al., 1999) and in teams (e.g., Lehmann-Willenbrock & Allen, 2014). Despite the popular media emphasizing humor as an important characteristic of entrepreneurs and their ventures (e.g., Hunt, 2017; Stewart, 2013), team humor has not gained any attention in research on

entrepreneurial teams. With the present study, we show that the use of humor in entrepreneurial teams is not only a mere coincidence, but can actually benefit team interactions, and thus the development of the team and the venture. While we introduce the use of team humor as an important coping mechanism for entrepreneurial teams to deal with their perceived threats, we urge future research to study further important dimensions of the use of humor in entrepreneurship, such as the role of playfulness, its role as a personality trait (Thorson & Powell, 1993), or even the dark side of humor as in teasing and ridiculing others (Keltner et al., 1998).

By introducing team humor to the literature on entrepreneurial teams, we also contribute more broadly to research on interpersonal processes in entrepreneurial teams (Klotz et al., 2014). According to a recent review, entrepreneurship research still lacks understanding of affect and emotions in entrepreneurial teams (Breugst & Preller, 2020). Hence, building on theory on team processes (Marks et al., 2001), we shed light on an interpersonal team process related to affect management in entrepreneurial teams. Insights into how entrepreneurial teams regulate and thereby, for instance, overcome their feelings of defeat or pressure and stress are particularly important in entrepreneurship, because entrepreneurial teams ride an emotional rollercoaster when pursuing their entrepreneurial journey (De Cock et al., 2020). With our findings, we show that team humor as an interpersonal process supports entrepreneurial teams to regulate their emotions from the threatening environment, and thus affects the survival of the entrepreneurial team and venture. We argue that team humor helps prevent entrepreneurial teams from feeling defeated by their environment, and relieves their feelings of pressure and stress. Building on this insight, future research can study further interpersonal processes related to affect management in entrepreneurial teams to advance our understanding of how teams regulate cofounders' emotions during the entrepreneurial journey.

Last, we add to the literature on environmental hostility in entrepreneurship (Covin & Slevin, 1989; Zahra, 1993). The literature on (perceptions of) environmental hostility focuses on the behavioral side of how ventures can persevere in these threatening conditions. For example, studies introduce the strategies ventures can employ to tackle their threat (Holburn & Vanden Bergh, 2008), the resources they should aim to have available (Bradley et al., 2011), or the effort they may invest with the aim of overcoming their challenges (Breugst et al., 2020). In the present study, we shed light on how entrepreneurial teams deal with their threatening environment at the socioemotional level. In doing so, we theorized that socioemotional behaviors also impact how entrepreneurial teams tackle their environmental challenges. By finding support for our hypotheses, we contribute to the literature on environmental hostility in entrepreneurship. We argue that it is not only important to understand the strategies entrepreneurial teams employ to tackle their perceived threats, but also the socioemotional behaviors they engage in may impact how entrepreneurial teams pursue these strategies successfully. In future research, scholars can study how the strategies and socioemotional behaviors affect each other, such as if socioemotional behaviors might also determine which strategies entrepreneurial teams choose to employ.

4.5.2 Limitations and directions for future research

Despite carefully designing the study to circumvent potential theoretical and methodological issues, some limitations remain. First, even though we made sure to capture the dependent variable after the independent and moderating variables to ensure that the temporal precedence inherent to our theorizing is also present in our data, we captured both the independent and moderating variable at the same point in time. Building on prior studies (Breugst et al., 2020), we are confident that perceptions of environmental hostility remain stable despite the presence of team humor. In addition, because of the wide range of values that the variable of perceptions of environmental hostility covers, we feel assured that

entrepreneurial teams with higher levels of team humor are still likely to experience threats arising from their industry environment. However, we suggest future research to employ a longitudinal and time-lagged research design to model temporal precedence within the entire model, and thus to also reveal if and how perceived environmental hostility and humor influence each other over time (i.e., Schonfeld & Rindskopf, 2007).

Second, to arrive at our team-level construct of team humor as a socioemotional behavior in entrepreneurial teams, we drew on an aggregation-based method and not on a consensus-based method (Quigley et al., 2007). Even though we acquired the responses of each team member in the entrepreneurial team, we did not directly capture the construct at the team-level. Following Quigley et al. (2007), we are convinced that the results of both methods would reveal comparable results. However, we suggest future research to check the consistency of results using a consensus-based method. Similarly, to gain insights into the micro-mechanisms guiding team humor as a coping mechanism, a qualitative study based on team-level data (e.g., observational and ethnographic data) might reveal interesting insights and thus complement our study well.

Last, our study draws on entrepreneurial teams' perceptions of environmental hostility to theorize on how these may affect our outcomes. Hence, we do not utilize objective industry data to measure environmental hostility. By finding support for the baseline hypotheses (i.e., H1 and H2), our findings suggest that the entrepreneurial teams' perceptions of environmental hostility reveal similar results to objective environmental hostility. Consistently, past research argues that it is primarily the perceptions of the environment that influence teams' actions and behaviors (Milliken, 1990). Yet, to address the short-coming of our study of not considering objective industry data, future research could compare how perceptions of environmental hostility are related to more objective industry conditions. Particularly, it might be interesting to shed light on how perceptions of environmental hostility change over time and how these

changes are related to entrepreneurial teams' socioemotional behaviors, i.e. if socioemotional behaviors differ in the presence of perceived threats and in times when entrepreneurial teams feel as though everything is going well.

4.6 Conclusion

Entrepreneurial teams are confronted with a myriad of threats along their entrepreneurial journey, one of which may be the perception of their environment. Past research argues that these perceptions increase the likelihood of a breakup of the entrepreneurial teams and their ventures. With this study, we shed light on how team humor can act as a coping mechanism for entrepreneurial teams, by averting the detrimental effects of teams' perceptions of environmental hostility on the breakup of the teams and the ventures. With our study, we hope to inspire future research to further investigate team humor and a team-level perspective of coping.

5 CONCLUSION

My overall aim in this dissertation is to contribute to a multi-level understanding of how entrepreneurial teams collaborate to develop new ventures. In pursuing this aim, I explored how entrepreneurial teams work together to develop their venture idea, how they organize to foster a stronger team spirit, and how they can deal with environmental threats and challenges. Hence, I provide insights into structures, relationships, and behaviors of entrepreneurial teams through which they drive the development of their ventures. My dissertation has implications for entrepreneurship and management scholars, as well as for practitioners. This chapter focuses on the key findings and implications of my dissertation, and puts them into perspective with a broader research agenda.

5.1 Towards a team-level perspective of pivoting

In the first study, I followed a qualitative multiple case study approach (Eisenhardt, 1989, 2021) to develop a team-level perspective of how entrepreneurial teams engage in a pivoting process of their venture idea. The emergent theoretical framework suggests that after entrepreneurial teams allocate their roles and responsibilities and start working on their venture idea, those teams with organic relational dynamics, and thus those that coordinate their work in directed and undirected spaces, can develop a more holistic narrative of their venture idea. When cofounders develop such holistic stories of the venture idea, multiple holistic and overlapping stories may coexist in an entrepreneurial team. By identifying

similarities and differences in these stories, the entrepreneurial teams can modularize their venture idea, test different modules in parallel, and subsequently pivot their venture idea. On the contrary, entrepreneurial teams with expedient relational dynamics tend to solely coordinate their work in directed spaces. Cofounders in these teams are more likely to develop compartmentalized narratives of the venture idea that focus on their own roles and responsibilities. They are rather to synchronize their separated roles and responsibilities and only if necessary, make minor refinements and adjustments to the venture idea. These teams tend to persevere with their venture idea. With the theoretical framework I developed in the first study, I contribute to the literatures on pivoting, entrepreneurial teams, and spaces.

First and most importantly, the study contributes to a better understanding of entrepreneurial pivoting by including a team-level perspective. Existing research on pivoting focuses on the individual- and venture-level patterns of pivoting (e.g., Berends et al., 2021; Grimes, 2018; Hampel et al., 2019; Kirtley & O'Mahony, in press). However, these studies attend less to the dynamics that enable pivoting in entrepreneurial teams, despite the importance of teams in the process of founding and running ventures (Perry-Smith & Coff, 2011; Preller et al., 2020). I address the gap by introducing the team-level to the literature on pivoting and illustrating how entrepreneurial teams can engage in the process. Second, the study challenges research on entrepreneurial teams that urges entrepreneurial teams to professionalize their roles and structures early on (Jung et al., 2017; Sine et al., 2006; Talaulicar et al., 2005). I argue that in the early stages of venture development, in which entrepreneurial teams and their venture ideas often remain more dynamic (Andries et al., 2013; Lazar et al., 2020; McDonald & Eisenhardt, 2020), only professional structures, such as directed spaces, might inhibit a team's ability to pivot the venture idea. Third and more generally, I contribute to the literature on spaces by exploring potential boundary conditions. The literature on spaces assumes that the desired subject of change is known (Bucher &

Langley, 2016; Kellogg, 2009; Lee et al., 2020). However, entrepreneurial teams might need to act upon unforeseen feedback with substantial alterations to their venture idea (Grimes, 2018; Kirtley & O'Mahony, in press). While the literature sees spaces as drivers of change when the ultimate aim of the change is known and understood, I argue that such spaces devoted to a specific topic can also infer a resistance to change.

Besides its theoretical implications, the first study also has practical implications for entrepreneurial teams and their mentors. Research points to the importance of pushing entrepreneurial teams towards professionalizing the structures and processes in teams and ventures, such as by separating roles and responsibilities (Jung et al., 2017), favoring formal over organic structures (Sine et al., 2006), or establishing contracts to mitigate potential issues related to an entrepreneurial team's novelty (Blatt, 2009). However, my study suggests that professionalizing structures and routines might come at the cost of remaining creative and flexible in developing the venture idea. Hence, I suggest that entrepreneurial teams should create bounded settings (e.g., meetings among all cofounders) in which they step away from their professionalized structures and enable open and organic conversations. Within these settings, cofounders can address any topics that are on their minds and that might otherwise not be given room for in professionalized interactions. For instance, cofounders may question the status quo or reiterate past feedback. In making room for such open and organic interactions in bounded settings, entrepreneurial teams might be able to remain flexible and enable pivoting, while they still also leverage the benefits of professionalizing their venture.

5.2 Towards a holistic understanding of ownership in entrepreneurial teams

In contrast to the first study that links entrepreneurial teams' organizing behaviors to venture-level outcomes, the second study addresses founders in entrepreneurial teams, and how they can organize to create a team spirit. Prior research has focused on the economic rational perspective of equity ownership by connecting higher equity stakes to more positive

outcomes for founders (e.g., Bitler et al., 2005; Hall & Woodward, 2010). In theorizing on the dual side of ownership and arguing that owning an equity stake consists not only of a formal organizational component but also has psychological effects for founders in entrepreneurial teams (Etzioni, 1991; Pierce et al., 2001), I contribute to a more holistic perspective of equity ownership. Drawing on psychological ownership theory (Pierce et al., 2001, 2003), I argue that owning more equity can have opposing effects on founders. It may trigger feelings of responsibility and care for the venture, but also possessiveness and territoriality (Baer & Brown, 2012; Brown et al., 2005), which both affect a founder's identification with the team. Hence, this theorizing results in a curvilinear (inverted U-shaped) relationship (Haans et al., 2016) that becomes more accentuated when founders perceive higher levels of team performance. I test and find support for the hypothesized relationships using longitudinal data including 156 data points from 82 founders nested in 50 entrepreneurial teams. With these findings, my study has theoretical implications for the literatures on equity ownership, entrepreneurial teams, and psychological ownership.

First, extending research on equity ownership in ventures, I challenge the assumption of the rational, economic perspective pointing towards the notion of "the more, the better" (Bitler et al., 2005; Hall & Woodward, 2010). The study demonstrates that considering the psychological consequences of ownership in entrepreneurial teams provides a more holistic and nuanced picture of the role of ownership for cofounders compared to prior work drawing primarily from an economics perspective. When aiming to foster a strong team spirit by increasing founders' identification with the team, it might be beneficial for founders to own a medium level of equity, because an increase in ownership beyond this medium level may cause feelings of possessiveness and territoriality to outweigh those of responsibility and care, and thus comes at a social cost. Second, my research contributes to research on entrepreneurial team identification (Blatt, 2009; Cardon et al., 2017), an important component

of a team's relational capital (Blatt, 2009). To build such relational capital, boundaries can enable the team to develop an understanding of who belongs to the team. My study contributes to this idea and points towards not only the mere existence of contracts shaping a founder's identification with their entrepreneurial team, but sheds light on how the *terms* of the contract—that is, how much equity is owned by one founder—shape their identification. Third, answering the call from Dawkins et al. (2017, p. 175) to "explore the optimal range of PO [psychological ownership] that is psychologically healthy and engaging", the study shows that there indeed appears to be an optimal level of the equity stake and, thus, psychological ownership of the venture.

Besides its theoretical implications, the study also offers insights for founders forming and mentors supporting entrepreneurial teams. I highlight that equity ownership not only results in legal ownership, but also has psychological implications. For founders and mentors, it is important to understand that psychological ownership can encourage care and concern for the venture, but it can also provoke overly protective and territorial behaviors that distance them from their entrepreneurial team. Thus, a medium level of equity ownership appears to be particularly beneficial for establishing a strong basis for the entrepreneurial team. In giving up a slice of the pie, founders can strengthen their team—which might, in turn, allow them to create a bigger pie with the help from their team in the future (de Jong et al., 2013). These effects of psychological ownership seem more pronounced when founders anticipate a higher future value of their equity stake because of higher team performance. This makes it particularly important to find the appropriate level of equity in high-performing teams to strike the right balance between care and concern for the venture versus possessive and territorial behavior.

5.3 Towards a team-level perspective of coping in entrepreneurial teams

While the first and second study focus on entrepreneurial teams' organizing behaviors in the early stages of venture development, the third study sheds light on how the entrepreneurial teams can deal with their environmental threats and challenges throughout the entrepreneurial journey. Specifically, I draw on a quantitative deductive approach to theorize how an entrepreneurial team's perception of environmental hostility can increase the likelihood of a team (Foo et al., 2006; Shane & Foo, 1999) and venture breakup (Miller, 1994; Zahra, 1993). Building on research on socioemotional behaviors and their impact on teamwork (Casciaro & Lobo, 2008), I then theorize that team humor—a socioemotional behavior that fosters positive emotions and beneficial team interaction processes and thus impacts both team- and venture-related outcomes (see Mesmer-Magnus et al., 2012 for a meta-analysis)—may help mitigate the detrimental effects of perceived hostile environments, by acting as a coping mechanism for the entrepreneurial team. Testing my theorizing using structural equation modeling on a sample of the responses of all 276 cofounders of 114 entrepreneurial teams supports my hypotheses. My findings reveal that at particularly high levels of team humor, entrepreneurial teams' perceptions of environmental hostility may even decrease the chances of a team or venture breakup. By finding support for my hypotheses, the third study offers important implications for the literatures on coping in entrepreneurship, entrepreneurial teams, and environmental hostility.

First, I introduce the alternative coping mechanism of team humor to the literature on coping in entrepreneurship. So far, research on coping in entrepreneurship has mainly studied coping mechanisms based on self-focused emotions (e.g., Engel et al., 2021; Shepherd, Wiklund, et al., 2009). By drawing on the socioemotional behavior of team humor as a coping mechanism (e.g., Henman, 2001; Mesmer-Magnus et al., 2012; Sliter et al., 2014), I shed light on a coping mechanism that occurs in a social context. Second, I introduce team humor to the

literature on entrepreneurial teams. The use of positive humor and its related behaviors, such as laughing and joking, has been the basis of several studies at the workplace (Mesmer-Magnus et al., 2012). Despite the popular media emphasizing humor as an important characteristic of entrepreneurs and their ventures (e.g., Hunt, 2017; Stewart, 2013), team humor has not gained any attention in research on entrepreneurial teams. With the present study, I show that the use of humor in entrepreneurial teams can benefit team interactions, and thus the development of the team and the venture. Third, I add to the literature on environmental hostility in entrepreneurship (Covin & Slevin, 1989; Zahra, 1993), which focuses on the strategic side of addressing these threatening conditions (e.g., Bradley et al., 2011; Breugst et al., 2020). However, I argue that it is not only important to understand the strategies entrepreneurial teams employ to tackle their perceived threats, but to also shed light on the socioemotional side of dealing with these challenges. I argue that the socioemotional behaviors of entrepreneurial teams can impact how successful they are in overcoming the challenges.

Besides its theoretical implications, this study also has practical implications for entrepreneurial teams and their mentors and coaches. Entrepreneurial teams facing particularly challenging industry conditions are at the risk of prematurely breaking—that is, cofounders exiting the venture (Foo et al., 2006; Shane & Foo, 1999) and/or the team having to cease the operations of the venture (Miller, 1994; Zahra, 1993). To mitigate the chances of breakups, my study suggests that entrepreneurial teams should foster humorous interactions. Particularly for teams facing challenging industry conditions, having fun together may act as a coping mechanism that can impact how they address their threats. These teams might hold together more tightly and also be more creative in finding solutions to overcoming their threatening conditions. Hence, I suggest that entrepreneurial teams and their mentors and

coaches should induce humorous interactions in entrepreneurial teams facing threatening conditions to facilitate their coping and thus mitigate the chances of breakups.

5.4 Limitations and opportunities for future research

I carefully designed the studies in my dissertation to avoid typical shortcomings, yet I acknowledge that some limitations remain. Although the studies are longitudinal and enable me to theorize on how the entrepreneurial teams and their ventures develop over time, all three studies are mainly based on data at two points in time. In the first study, I conducted at least two rounds of interviews with each cofounder of the entrepreneurial teams. In the second study, I restricted the analysis to two measurement points each for the independent and dependent variables. In the third study, I drew on questionnaire data, as well as secondary data on the entrepreneurial teams and their ventures collected two years after the initial questionnaire. Focusing on these limited periods of time allowed me to capture the data necessary for my theorizing. I was thus able to rule out potentially interfering developments in the entrepreneurial teams, such as turnover of team members which could interfere with the results of the first and second study, or environmental changes impacting the results of the third study. However, future research could focus on the processes and dynamics in entrepreneurial teams over longer periods of time or by taking more periods of time into account. Specifically, it might be interesting to explore in a qualitative study built on ethnographic data how relational dynamics or coordination practices unfold over time in entrepreneurial teams. Perhaps entrepreneurial teams go through changes as their venture advances and for instance, increasingly formalize their structures and routines. In the second study, vesting agreements may make cofounders' feelings of psychological ownership more dynamic, which might affect the entrepreneurial team. In addition, I suggest future research to use an experience-sampling approach to learn more about the different socioemotional

behaviors of entrepreneurial teams, for instance, if teams enact different socioemotional behaviors to support them in coping with specific situations.

Moreover, the data used in my studies builds heavily on the perceptions of the cofounders of the entrepreneurial teams. The interviews of the first study provide insights into how each cofounder perceives the dynamics and processes within in the entrepreneurial teams to unfold. The second study draws on cofounders' perceptions of team performance to argue how these perceptions moderate the relationship between the size of the founder's equity stake and their identification with the team. In the third study, I aggregate the results of the cofounders at the mean to obtain a team-level measure of perceptions of environmental hostility and team humor. For my dissertation, working with perceptive variables fits my theorizing, because cofounders' perceptions are crucial to better understand their actions and behaviors, and thus the outcomes (e.g., Breugst et al., 2015, 2020). Moreover, in the qualitative study, obtaining insights by each cofounder separately enabled me to triangulate the data within the team and thus develop a more holistic understanding of the dynamics in the entrepreneurial teams. Additionally, in the third study, I drew on an established aggregation-based method for obtaining team-level data, which commonly reveals similar results to consensus-based methods (Quigley et al., 2007). Yet, to address the shortcomings of these data, I suggest future research to use more consensus-based methods to gain insights into teamwork. In addition, team interviews and observations of entrepreneurial teams' interactions might help to further corroborate the findings. By studying the entrepreneurial teams in their entirety, scholars might also gain insights into the implicit processes and dynamics of entrepreneurial teams, such as unspoken hierarchies in entrepreneurial teams that potentially impact their relational dynamics. In addition, future research could consider adding more objective indicators for a venture's performance or environment to compare how and why perceived and objective measures potentially differ in entrepreneurial teams.

Further, I conducted the studies in my dissertation using data on entrepreneurial teams (and their ventures) that are embedded in large entrepreneurial ecosystems of the same European country. I was particularly interested in learning more about the entrepreneurial team processes and dynamics I theorized on and thus sought to rule out as much variation as possible in sampling the entrepreneurial teams and their ventures. However, I acknowledge the limited generalizability of the results that stem from gathering the data in such a specific context (e.g., Eisenhardt, 2021). Concerning this limitation, recent research sheds light on how different cultures and contexts might impact founders and their ventures (Foy & Gruber, in press; Scheidgen & Brattstrom, 2021). Hence, studying the cultural context and the entrepreneurial ecosystems that entrepreneurial teams are embedded in might provide interesting avenues for future research. Scholars can focus on if and how potential differences in the cultural background or entrepreneurial ecosystem impact entrepreneurial teams and their ventures, as well as how the variation among cultures and contexts may play out in the processes and dynamics in entrepreneurial teams.

Complementing the opportunities for future research that stem from the limitations of this dissertation, the findings of my dissertation also open up further avenues for research on entrepreneurial teams. First, I hope to inspire work on coordination in entrepreneurial teams. While past research has uncovered how entrepreneurial teams might allocate their roles and formalize their responsibilities, both of which are important steps in young entrepreneurial teams (Sine et al., 2006), they also call for cofounders to coordinate their separated activities (Faraj & Xiao, 2006). In the first study, I shed light on how entrepreneurial teams' relational dynamics impact how they coordinate their work in directed and undirected spaces, and thus open a conversation on coordination in entrepreneurial teams. Future studies can advance this conversation by developing a more fine-grained understanding of coordination in entrepreneurial teams. For instance, some interviews hint towards entrepreneurial teams

struggling to coordinate multiple parallel projects, such as the different projects that arise from their parallel modules. Indeed, past research has shed light on this struggle and argues that individuals might struggle due to an attention residue from switching between parallel projects (Leroy, 2009). In the future, scholars can seek to explore how entrepreneurial teams navigate this struggle and coordinate multiple parallel projects.

The second study focuses on the dual side of ownership by considering not only the formal side of equity ownership but also taking its psychological effects into account (Etzioni, 1991; Pierce et al., 2001). In doing so, I show that the notion of "the more, the better" based on a rational, economic perspective not always holds true with regard to the equity ownership of founders in entrepreneurial teams. I thus provide initial insights into the potential dark sides of equity ownership. However, besides founders, investors and other stakeholders might also hold an equity stake in ventures (e.g., Breugst et al., 2015; Kotha & George, 2012). They too are most likely to experience the psychological effects of ownership. Hence, future studies can move away from a focus on the entrepreneurial team towards a broader view of the people-side of entrepreneurship. I hope to inspire scholars to study the potential psychological effects of equity ownership for investors and other stakeholders and seek to understand how feelings of responsibility and care, but also those involving possessiveness and territoriality might play out for all parties holding an equity stake, and how these consequently affect the venture.

The third study sheds light on team humor in entrepreneurial teams and how it may help entrepreneurial teams cope with their perceived threatening environment. Besides acting as a coping mechanism (Sliter et al., 2014), past research has associated humor with a sense of playfulness (Mesmer-Magnus et al., 2012). Regarding such playfulness at work, the popular media reports that entrepreneurial teams often create particularly playful cultures for themselves and for their employees (e.g., Hunt, 2017). For instance, ventures may include

playful elements in their office spaces to enhance collaboration (Stewart, 2013) and incubators may offer their entrepreneurial teams table football or other games to provide them with a more stimulating environment (e.g., TUM, 2021). While such a playful culture is considered to be an important component of many ventures' cultures (Alon, 2015), research lacks insights into how it affects entrepreneurial teams, employees, or even the development of the venture. Hence, future research can shed light on the cultures that entrepreneurial teams establish and in particular, how playfulness may influence important entrepreneurial team-, employee-, and venture-related outcomes, such as entrepreneurial team viability (Foo et al., 2006), well-being (Wiklund et al., 2019), or venture performance (e.g., Reese et al., in press; Santos & Cardon, 2019).

6 FINAL REFLECTIONS

The contribution of my dissertation lies in better understanding entrepreneurial teams and how they collaborate to develop their ventures. Specifically, I engage in a multi-level investigation of the fascinating social process of how cofounders in entrepreneurial teams aim to turn an idea into a successful venture. While unfortunately, some entrepreneurial teams do not achieve the desired success and have to cease their collaboration on founding and running the venture, others overcome the challenges inherent to the entrepreneurial journey and lead their ventures to great success. I conclude that these successful teams are rather able to interact organically and thus build on the holistic thoughts and ideas of the cofounders to advance their venture ideas. If cofounders own medium levels of equity, their stronger team spirit might allow them to create a bigger cake of which each of them ultimately receives their slice. Additionally, these entrepreneurial teams might be more successful in overcoming their environmental threats and challenges, as they have more fun as a team. By studying a multi-level perspective of how cofounders collaborate to establish new ventures, I acknowledge the key role of cofounders in shaping their entrepreneurial teams, which then drive the development of the venture. I thus conclude that that for entrepreneurial teams too, *the [team] is greater than the sum of [the cofounders]*.

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8 APPENDIX

Appendix 1: Interview questions for semi-structured interviews in Study I

Exemplary interview guideline for first round of interviews

Note: All but two interviews were conducted in German

1. Bitte stelle dich kurz vor und gib mir einen Überblick über die bisherige Entwicklung des Start-ups.
   Welche Teammitglieder sind wann dazugekommen? Wie habt ihr das jeweilige Teammitglied kennen gelernt? [Falls Co-Gründer nicht von Anfang an dabei war: Wie bist du auf das Start-up aufmerksam geworden?]
2. Beschreibe bitte einen typischen Tag im Start-up.
3. Was gefällt dir an der Arbeit im Start-up am meisten?
4. Neben diesen positiven Seiten, was stresst dich an der Arbeit im Start-up am meisten?
   Wie belastend ist die Situation für dich? Wie gehst du mit dem Stress um? Mit wem sprichst du darüber (anderen Co-Gründern, Externen)?
5. Wie läuft die Zusammenarbeit im Team?
   Wie ist die Aufgaben-/Rollenverteilung? Gibt es eine Art Hierarchie? Woran liegt es, dass ihr gut zusammenarbeiten könnt? Gibt es häufig Konflikte? Wie geht ihr mit Meinungsverschiedenheiten um? Wie geht ihr damit um, wenn es einem Co-Gründer nicht gut geht? Was würdest du gerne an der Zusammenarbeit im Team verbessern/ verändern? Was denkst du würden deine Co-Gründer gerne verändern?
6. Welche Vereinbarungen hast du mit deinen Co-Gründern getroffen *(Anmerkung: z.B. Aufgaben, Rollen, Equity, Verträge)*?
   Welche Vereinbarungen habt ihr vertraglich festgelegt? Hält sich jeder an die Vereinbarungen? Was sollte deiner Meinung nach noch verändert/ verbessert werden?
7. Wie würdest du eure Start-up Kultur/euer Start-up Klima beschreiben?
8. Welche Punkte [Werte] sind dir im Team wichtig? Sind diese Punkte auch deinen Co-Gründern wichtig?
   Habt ihr euch auf diese Punkte geeinigt, oder hat sich das mit der Zeit entwickelt?
9. Habt ihr im Team bestimmte Rituale oder Traditionen? Falls ja, welche?
   Wie seid Ihr darauf gekommen?
10. Habt ihr oft Spaß zusammen? Kannst du eine Situation nacherzählen, die besonders lustig war?
11. Wie ändert sich eure Zusammenarbeit, wenn ihr viel Stress habt? Wie geht ihr als Team mit dem Stress um? Kannst du dazu ein Beispiel erzählen?
    Steigert ihr euch rein oder versucht ihr was anderes zu machen/ meidet die Situation vorerst?
12. Wenn heute ein neuer Co-Gründer im Start-up anfangen würde, welchen Ratschlag würdest du ihm/ ihr für den Einstieg in euer Team geben? *[ganz kurze Pause:]* Und welche Ratschläge würden deine Co-Gründer dem neuen geben?

13. Gibt es noch etwas, was euer Team ausmacht, und wonach ich noch nicht gefragt habe? Etwas, was ich wissen sollte, um euch gut zu verstehen?

Exemplary interview guideline for second round of interviews:

Note: All but two interviews were conducted in German

1. Bitte erzähle wie sich das Start-up in den vergangenen Monaten entwickelt hat. Welche besonderen Erfolgserlebnisse hattet ihr? Welche besonderen Herausforderungen hattet ihr?
2. Was war in den vergangenen Monaten die wichtigste Entscheidung für das Unternehmen? Kannst du mich in die Situation mitnehmen – was ist zuerst passiert? Was dann? Wer war beteiligt? Welche Auswirkungen hatte die Entscheidung auf euch als Team?
3. Beschreibe bitte das derzeitige Verhältnis zwischen dir und deinen Co-Gründern im Vergleich zu deinen engsten Freunden? Beschreibe bitte das derzeitige Verhältnis zwischen dir und deinen Co-Gründern im Vergleich zu deinen ehemaligen Arbeits- bzw. Studienkollegen?
4. Wie arbeitet ihr auf einer täglichen Basis im Team zusammen? Wer ist aktuell für was zuständig? Wie haben sich diese Zuständigkeiten in den vergangenen Monaten verändert/entwickelt? Wie koordiniert ihr eure Arbeit? Wie tauscht ihr euch aus? Wie stellt ihr sicher, dass ihr alle in dieselbe Richtung geht?
5. Wenn einer von euch Feedback bekommt, wie verteilt sich das Feedback im Team? Wer erfährt davon? Habt ihr Feedback-Meetings?
6. Welche Regeln habt ihr im Team wie Entscheidungen getroffen werden? Welche Regeln habt ihr für die Aufgabenverteilung? Was macht ihr, wenn ihr im Team verschiedene Meinungen vertretet – wer setzt sich mit seiner Meinung durch? Kannst du ein Beispiel erzählen?
7. Wie sieht die Hierarchie im Team aus? Wie hat sich diese Hierarchie entwickelt? Wie habt ihr diese Hierarchie festgelegt? Warum ist *Person X* hierarchisch höhergestellt? Warum ist *Person Y* hierarchisch niedriger gestellt?
   Falls keine Hierarchie/ flache Hierarchie: Dann ist also <u>jeder</u> in <u>allen</u> Entscheidungen <u>immer</u> gleichberechtigt?
8. Was machst du um deiner hierarchischen Stufe gerecht zu werden? Welche Aufgaben zusätzlich zur Arbeit bringt diese Hierarchiestufe mit sich? Kannst du dazu ein konkretes Beispiel erzählen?
9. Was macht ihr jeden Tag als Team? Habt ihr Routinen oder Traditionen? Wenn ja, welche? Wann habt ihr sie eingeführt? Für euch oder auch die Mitarbeiter? Wie wäre es ohne?
   Wenn nein: Habt ihr mal drüber nachgedacht? Was würdest du dir davon erhoffen? Wie findest du das?
10. Wie motiviert ihr euch im Team von Tag zu Tag gegenseitig? Kannst du eine Situation beschreiben? Was wäre anders, wenn deine Team-Mitglieder sich anders verhalten hätten? *Welche kleinen Aufmerksamkeiten habt ihr, um euch gegenseitig aufzumuntern (z.B. hat*

jemand eine Naschlade/ spielt ihr gemeinsam etwas/ schaut ihr Youtube Videos/ habt ihr eine Matraze dabei auf der ihr ein Nickerchen macht)?

11. Beschreibe den für dich bisher schönsten, einprägsamsten Moment seit der Gründung? Welche Rolle haben deine Co-Gründer gespielt? Wie habt ihr den Moment als Team erlebt?
12. Beschreibe den für dich schwierigsten, schlimmsten Moment seit der Gründung? Welche Rolle haben deine Co-Gründer gespielt? Habt ihr direkt darüber geredet? Wer hat es angesprochen? Wie oft habt ihr im Team darüber geredet? Habt ihr danach noch mal darüber gesprochen? Habt ihr euch Zeit genommen, dass ihr aus der Situation lernt (Reflektionsrunden, Anpassungen, etc.)?
13. Angenommen du müsstest für dich und deine Co-Gründer eine Typologie ähnlich zu dieser erstellen (Beispiel Typologie zeigen), wie würdest du dich und deine Co-Gründer typisieren:

    Überschrift
    So ist er/sie (drei Merkmale, die ihn/ sie beschreiben mit Erläuterung)
    Diese Aufgabe macht er/sie mit größtem Ehrgeiz
    Dieser Spruch ist charakteristisch für ihn/sie
14. Gibt es noch etwas, was euer Team ausmacht, und wonach ich noch nicht gefragt habe? Etwas, was ich wissen sollte, um euch gut zu verstehen?

Appendix 2: Additional evidence for Second-Order Dimensions of Study I

Table A1. Additional evidence for professionalized structures

Second-Order Diminsion	Illustrative Data
Common goal	Amy: *[We developed a] training algorithm, it's always high-intensity training paired with yoga (…). On that basis, our idea continues to grow.* Bob: *I thought the team was good, I thought the idea was good, and they really needed my skills. So we got together and ignited the spark.* David: *[At the startup weekend,] we quickly realized that we came up with cool topic, so we stuck to it, won the weekend (…) and got back together four weeks [after the startup weekend] and said, ok, this is a cool case, a cool team, we want to do this, let's quit our fulltime jobs. So, we did that and are now working fulltime on the venture.* Ellie: *The team as of today exists since March 2016. Back then, we had a stipend for a year and that is when we committed to developing silicon chips for infrared spectroscopy.* Finn: *It kind of started out as an idea we had over a beer and then we thought, ok, how can you make it happen. That was when we realized that there are so many face recognition algorithms out there (…) and there are so many open source packages (…), and so, we came up with the idea of combining all those and implementing them into a browser-based solution.* Gregor: *We thought about how we could improve existing teams and we quickly got to the topic of feedback. So, we pitched that [in a seminar] (…) and now we are in the founding and incubation phase.*
Division of domains	Aaron: *All things related and applied to the product or related to the development of the product, that's me. And the line of division is everything regarding management, PR, and organizational topics. That's mostly Amy.* Ben: *I did not want to search for a CTO like most other start-ups out there. Here, I already had a CTO. That was an important reason for joining.* Thought protocol after interview with Connor: *I am the techie and responsible for data cleaning, data preparation and the back-end. Charlie is more responsible for the front-end of the product. And Christian does all the rest. He has a lot of tasks, mostly management-related.* Dominic: *David ensures that Dylan can do his tech and that I can do my design.* Edward: *Briefly said, Ethan knows how you sell it, Ellie knows how you use it, and I know how you develop or build it.* Finn: *Felix is more the organizational psychologist, so he approaches the product with a psychological background. I am the classic management person, I also keep an overview of the finances.* Fletcher: *I (…) am the technical co-founder.*

	Gabriel: *Internally, the role of the chief marketing officer is with Gregor. (...) I am more on the content-side, and also work closely with pilot customers.*

Table A2. Additional evidence for relational dynamics

Second-Order Diminsion	**Illustrative Data**
Expedient relational dynamics	Amy: *The way I ask questions in job interviews is quite good. Because I confront the person with a specific situation and in that moment, I want [the person to speak about] possible solutions. I then see how well the person thinks logically or if they fail at that.* Bob: *It's really important for us to have fun as a team. So, I don't mean having fun in a sense that we are a beer-pong type of community, but it is important that everyone enjoys being here. Work is work, but you shouldn't come for money and rather because you want to.* Thought protocol after interview with Connor: *Christian always brings chocolates and puts them on the table for all of us to take—as a kick of motivation if we aren't feeling it.* David: *We only celebrate the really big milestones. Actually, that was only once, which was when we got a stipend. We organized a get-together with a bottle of sparkling wine and sat down together. I would never just like that go to Dylan and Dominic and pat them on the back [to tell them how good their work is].*
Organic relational dynamics	Ellie: *For example, Edward had a call with some kind of researcher in Canada. He explained something in English and then said, "this is crystal clear." He started laughing up his sleeve, because we aren't actually making crystals. He thinks jokes like those are incredibly funny and always makes stupid puns that he gets excited about. Most of the time, the puns are so bad that the whole team starts laughing [in the office].* Finn: *For example, (...) if it rains, a message is most likely to pop up in our chat saying: I'm not coming to the office today. So yeah, it is really spontaneous. But if you need something, you can just have a video call or try meeting a bit later [once it stops raining], or in the city center, whatever.* Gregor: *We have similar interests and also go to the fitness studio together, or have dinner together. I know his girlfriend and he knows mine. We talk about very personal topics, topics that I only share with a handful of people. So, it's actually a really deep relationship.*

Table A3. Additional evidence for spaces

Second-Order Diminsion	Illustrative Data
Directed spaces	Aaron: *Whenever we meet in person, we build roadmaps and say that this has to be done by then and that has to be done then.* Ben [when asked about how the team makes strategic decisions]: *I come up with a plan and then discuss it with him [Bob].* Interviewer asks what Bob does in these discussions, then Ben: *He says "Yes, ok, this works" or "this doesn't work".* Thought protocol after interview with Connor: *Most of our disagreements have to do with technical issues. We then just schedule a meeting to discuss those, make a pro and cons list and choose the better version.* David: *Our only routine is playing a video game. We actually use that time together as a team meeting. We don't see each other every day, but even when we are together, we mostly have emails and other stuff to do. And then we play the game and discuss [all issues of the previous days]. We talk about everything while playing, such as patents, some kind of fuck up, user journeys, it's all discussed there.* Edward: *For example, we thought about scheduling a bigger evaluation meeting in September (…). By then, we'll see how the sales go and can realistically evaluate how much we can achieve in which period of time.* Fletcher: *For topics like whether we should focus on business-to-business or business-to-customers, these kind of discussions generally happen in meetings. We just sit down and talk about what someone said, what are their expectations about the business, customers and such.* Gregor: *On Monday, Wednesday and Friday, we have updates in the morning, short standups. So, that's really structured, the development process is structured.*
Undirected spaces	Ethan: *I can provoke discussions, contribute my own opinions and say, yes, but it's actually like this and that, that means we should actually do it like this and that. And then Ellie and Edward say, yes, no, then we continue discussing and at one point, yes, you're right. And then Edward comes, maybe wakes up and says, yes, but we should actually do it like this and that and then Ellie, well, yes, or like this and that. And so it goes on and then we'll do that.* Fletcher: *Yeah, yeah, yeah, we exchange ideas a lot. We actually have one online chat channel with just the three of us and always post everything there. The news, the competitors, etc., we post everything and then we talk about it.* Gregor: *It [changing the product] was a decision in an ad-hoc meeting. We just said "What if it were like this and that?", "Ok, let's try it." So then, [the first version of our prototype] was super simple, it was simple but it worked. And then we started talking to people and the feedback was, well, on the one hand, it was good and on the other hand, it was like, "Huh? We already have that."*

Table A4. Additional evidence for team member narratives

Second-Order Diminsion	Illustrative Data
Compartmentalized pieces of same holistic story	Aaron: *I want to be involved in all processes for as long as possible. (…) But I also say, "Ok, guys, whatever is happening here seems sound." And then I step back and take myself out of the decisions. [After that point, I don't know what happens.]* Ben: *I mean, we don't [have arguments], the thing is, our job roles are so different that we don't have to disagree.* Thought protocol after interview with Connor: In the interview, Connor explained how his favorite moment in the venture was when the algorithm he developed started working. Charlie: *Because we have these three major areas [back-end, front-end and management], (…) [and] each of us has his own responsibility, it's often the case that the others don't fully know what you are doing. It's a bit separated, everyone is working on his own. So, after meetings, it's like, "Ok, we now talked about this and that. Ok. Back to work." Then, everyone goes to their computers and it's silent.* Dylan: *For example, regarding the investment topic, it's a topic where I simply say, "Hey, these are my upcoming costs. David, raise the money. Close a deal." [I then don't follow up on where he gets the money from.]*
Holistic stories (multiple holistic stories can coexist)	Ethan: *So, during the last change of strategy, (…), I said that [the current strategy] somehow makes no sense. So, I talked to Edward but noted that I couldn't think it through to the end. So, Edward took it up und continued thinking through it and then we changed it. It's really just like that, that we take up something and continue thinking about it. Also, when we have discussions I don't know much about, I always say that I want to contribute by questioning. And I also ask them to continue thinking about something.* Finn: *It became a problem that we simply were not sure at what stage we were at with our tech. And then both Felix and I started saying around Christmas time, we started saying that we actually have to contribute a bit more to the tech side, because really often, we were at events and told people about a vision without really knowing what our tech was able to do, from when on we would be able to do it or if it would be difficult to implement (…). And so, when we had a bit of time pressure, I went to Fletcher and asked him how I could contribute.* Felix [when asked about his favorite moments at F]: *I would say it's actually the feedback from the companies. That our venture idea is finding approval.* Gabriel [when asked about his favorite moments at G]: *Probably the project that we are starting with a pilot customer, because that is kind of like the stone that brings everything to role. Because now, once someone starts becoming a bit more interested, we can say that we are doing a project about employee feedback and team engagement*

	and then it's like, "Wow, interesting. How do you do that?" And then we say, like this and that and now we actually have a pilot customer.

Table A5. Additional evidence for pivoting

Second-Order Diminsion	Illustrative Data
Idea modularization	Ellie: *In general, Phase 1 is the chip and then the additional mounting system, but that's still based on the chip. Also in Phase 2, we want to implement 24 chips at once. And the fourth thing, for which we are currently talking to the pharmaceutical company, it's still kind of based on the chip. But we want to build an analysis machine and for that, we are also developing another chip (…).* Felix: *[The feedback] kind of overlaps. So the one side says, "ok, we want [the software] for recruiting, the recruiters should show more empathy in the candidates." (…) And the other company says, "good, we need [the software] for sales, our sales people aren't empathetic enough." And so in both cases, it's about emotional intelligence, but in different contexts.* Gregor: W*e built this really basic prototype for the coach (…) and realized that not everyone actually understands the questions they're asked to answer. So, we decided to add little video snippets explaining each question. Those snippets were not even produced by us, they were partly made by coaches from our network (…). But what we really learned is that employees needed guidance [to understand the coach]. So, we decided going more into e-learning, because the content we were providing, in essence, was e-learning. (…) And then companies told us, we have so much of our own stuff, so many processes and such, can you produce [e-learning content] for us? Can you produce content that introduces and explains our new processes? (…) And then, it was a bet, but we saw the need to capture knowledge because not every expert in a company can actually communicate their knowledge (…). And so we said, why not do what we already do on youtube—watch videos, video tutorials—but for a company?*
Idea parallelization	Edward: *We stopped quitting one thing completely and instead, we simply postpone it. We don't like to immediately quit something forever, but we rather say, ok, this now has less priority.* Finn: *We don't want to be greedy, we simply want to survive, so, yes, we might get into that market [sales] quicker. But it's also more complicated, because you need more front-end development. It has to look nice. And employee development, you could do more in the background and then send them the data. So, for now, we are in both markets, and I think the big decision will be which one actually becomes our market.*

Table A6. Additional evidence for persevering

Second-Order Diminsion	Illustrative Data
Idea synchronization	Aaron: *Soon, we'll have a video call and say, "We have to think about how to guide the user through the app? What is important to display and what not?" For that reason, all of us will think about what type of apps we prefer. Maybe, we'll ask for one, two drawings or a few screenshots and send them around. Everyone then has four, five days to look through [the photos and drawings]. That's how we optimize the workflow, but we always give each other enough time to get it done.* Bob: *We realized that over the past two months, we were both so much into our own topics that we had a lack of synchronicity. For example, there was a point when I asked Ben, "Why is this not done?" and then he said, "You never mentioned that you need it", so we were at that point and had to get everyone involved in a room to resolve the issue. After that, we came to the conclusion that we need to synchronize better. It is now on our to-do list to have meetings to become more synchronous.* Dylan: *Dominic and I work together more closely, because we both work on the product. Naturally, we have a lot more touch points. And with David, it's more like: We're here, that's how far we are, these are our plans, and also the other way around. But it's not like we discuss a lot about what we do or about the decision of which lawyer to choose. David can decide that by himself, he's a big boy.* Edward: *We realized that all of us are working on our own projects and no one knows exactly what the others are doing, because in the end, we do have quite a lot of different topics going on. So, on a monthly basis, we organize a big breakfast and everyone talks about their projects.* Finn: *[We work on our own packages] and in between, we always show it to one another. Sometimes, we realize that the other person has better ideas or invests more or would have more fun doing it, so then we swap tasks.*
Idea refinement	Amy: *In April, we started writing down exercises as the basis for our algorithm. Then, we completely changed [the algorithm] and decided to use a different system, because you always have different grids, like different masks that you feed with data and we completely restructured that. We actually also did that this month. The customer doesn't notice [the changes], because the output is the same. The only thing that is different is how the data is fed into the system.* Bob: *Following criticism, we actually changed the sequence [of the user journey] quite a few times or decided not to do something, or did something a bit differently.* Dominic: *Nothing much has changed. The goal was clear from the beginning. It was also clear from the beginning that it would take a long time.* Ethan: *We started selling our first product and now, we are adding a mounting system for the chips. It was originally just a side project, because we had to build the system to test our chips. (…) And then we thought, maybe we can also sell that. And so we did it.*

	Finn: *Sometimes it's a bit subtler. I create some kind of mock-up and share it with him and then he starts changing it completely and then I go over it again and change it completely, so sometimes, we just say that it's good and sometimes, we don't say, "that's shit", but we show the other person that we would find ways to do it better. And then again, sometimes you have parallel versions and have to discuss which one to go with.* Gregor: *Most of the time, I directly discuss feedback with Gabriel, because actually, he is responsible for the product. So, I say, "Gabriel, we need this." He says, "Wait a minute, we have a list of 10,000 things that we have to do, what's more important?" Then we briefly discuss, maybe we'll go to the meeting room.*

Appendix 3: Items of scales used for the main constructs of Study II

Table A7. Items of scale on a founder's identification with their team

#	Original item (English: Mael & Ashforth, 1992, p. 122)	Translated item (German, own translation)	Rating scale
Please indicate how much you agree with each of the following statements:			
1	When someone criticizes this team, it feels like a personal insult.	Wenn jemand dieses Team kritisiert, empfinde ich dies als persönliche Beleidigung.	1 = not at all; 7 = completely
2	I am very interested in what others think about this team.	Ich bin sehr daran interessiert, was andere über dieses Team denken.	1 = not at all; 7 = completely
3	When I talk about this team, I usually say 'we' rather than 'they'.	Wenn ich über dieses Team spreche, sage ich gewöhnlich "wir" und nicht "sie".	1 = not at all; 7 = completely
4	This team's successes are my successes.	Die Erfolge dieses Teams sind meine Erfolge.	1 = not at all; 7 = completely
5	When someone praises this team, it feels like a personal compliment.	Wenn jemand dieses Team lobt, empfinde ich dies als persönliches Kompliment.	1 = not at all; 7 = completely
6	If a story in the media criticized the team, I would feel embarrassed.	Wenn ein Beitrag in den Medien dieses Team kritisieren würde, wäre mir das peinlich.	1 = not at all; 7 = completely

Table A8. Items of scale on a founder's perceptions of team performance

#	Original item (English: Shaw et al., 2011, p. 394)	Translated item (German, own translation)	Rating scale
Please indicate how you would rate your team with respect to the following aspects:			
1	Quality of work	Arbeitsqualität	1 = very poor; 7 = outstanding
2	Getting work done efficiently	Arbeitseffizienz	1 = very poor; 7 = outstanding
3	Flexibility in dealing with unexpected changes	Flexibilität im Umgang mit unerwarteten Veränderungen	1 = very poor; 7 = outstanding
4	Overall performance	Gesamtleistung	1 = very poor; 7 = outstanding

Appendix 4: Additional robustness checks to corroborate the results of Study II

Table A9. Hierarchical linear models to predict a founder's identification with the team including status (CEO), the venture's stage, age, and sales

	Full model additionally controlling for CEO			Full model additionally controlling for venture stages			Full model additionally controlling for venture age			Full model additionally controlling for sales		
Variables	**β**	**SE**	**p**	**β**	**SE**	**p**	**β**	**SE**	**p**	**β**	**SE**	**p**
Intercept	5.67	0.15	0.00	5.49	0.28	0.00	5.47	0.14	0.00	5.74	0.22	0.00
Control variables												
Lagged identification with the team (t–1)	−0.10	0.10	0.31	−0.13	0.10	0.22	−0.11	0.11	0.30	−0.11	0.10	0.30
Majority owner[a]	0.65	0.35	0.07	0.46	0.35	0.19	0.56	0.36	0.12	0.61	0.35	0.09
Gender[b]	−0.25	0.37	0.50	−0.40	0.40	0.31	−0.14	0.43	0.75	−0.27	0.38	0.48
Entrepreneurial experience	−0.21	0.13	0.10	−0.26	0.13	0.04	−0.15	0.14	0.29	−0.19	0.13	0.13
Work experience	−0.02	0.02	0.34	−0.02	0.02	0.29	−0.01	0.02	0.63	−0.02	0.02	0.30
Team age	0.04	0.05	0.41	0.08	0.05	0.14				0.06	0.05	0.26
Team size	0.09	0.19	0.61	−0.01	0.22	0.98	−0.03	0.20	0.87	0.08	0.19	0.67
Survival probability	0.00	0.01	0.19	0.01	0.01	0.20	0.01	0.01	0.10	0.01	0.01	0.24
CEO[a]	−0.38	0.25	0.14									
Venture stage[c]												
Commercialization				0.38	0.32	0.24						
Growth				−0.25	0.35	0.48						
Stability				0.44	0.65	0.50						
Venture age							−0.12	0.09	0.16			
Sales[a]										−0.26	0.25	0.31
Main effect												
Equity	0.79	0.87	0.37	0.17	0.90	0.85	0.43	0.86	0.62	0.34	0.85	0.69
Equity squared	−5.36	2.42	0.03	−5.58	2.53	0.03	−4.56	2.54	0.07	−5.21	2.46	0.03
Moderation effect												
Team performance	0.27	0.12	0.03	0.28	0.12	0.02	0.22	0.13	0.09	0.28	0.12	0.02
Equity × Team performance	1.82	1.07	0.09	1.61	1.10	0.14	1.01	1.13	0.37	1.78	1.07	0.10
Equity squared × Team performance	−9.32	4.41	0.04	−10.88	4.52	0.02	−8.55	4.37	0.05	−9.47	4.41	0.03
Pseudo R2	0.16			0.18			0.16			0.15		
N at Level 1 (observations)	156			146			141			156		
N at Level 2 (individuals)	82			73			74			82		
N at Level 3 (teams)	50			48			46			50		

Notes.
[a] 1 = Yes, 0 = No
[b] 1 = Female, 0 = Male
[c] Basis: Conception and development

Appendix 5: Items of scales used for the main constructs of Study III

Table A10. Items of scale on a founder's perception of environmental hostility

#	Original item (English: Green et al., 2008, p. 378)	Translated item (German, own translation)	Rating scale
Please indicate the extent to which you agree or disagree with each statement regarding your industry.			
1	The failure rate of firms in my industry is high.	Die Misserfolgsquote in meiner Branche ist hoch.	1 = strongly disagree; 7 = strongly agree
2	My industry is very risky, such that one bad decision could easily threaten the viability of my business unit.	Meine Branche ist sehr riskant, so dass eine schlechte Entscheidung leicht die Überlebens-fähigkeit des gesamten Unternehmens bedroht.	1 = strongly disagree; 7 = strongly agree
3	Competitive intensity is high in my industry.	Die Wettbewerbs-intensität ist in meiner Branche hoch.	1 = strongly disagree; 7 = strongly agree
4	Customer loyalty is low in my industry.	Die Kundenloyalität ist in meiner Branche niedrig.	1 = strongly disagree; 7 = strongly agree
5	Severe price wars are characteristic of my industry.	Heftige Preiskriege sind für meine Branche charakteristisch.	1 = strongly disagree; 7 = strongly agree
6	Low profit margins are characteristic of my industry.	Niedrige Gewinnmargen sind für meine Branche charakteristisch.	1 = strongly disagree; 7 = strongly agree

Table A11. Items of scale on the use of humor in teams

#	Original item (English: Avolio et al., 1999, p. 221)	Translated item (German, own translation)	Rating scale
Please indicate how much you agree with each of the following statements:			
1	In our entrepreneurial team, we use humor to take the edge off during stressful periods.	In unserem Gründerteam nutzen wir Humor, um in stressigen Zeiten die Anspannung zu reduzieren.	1 = not at all; 7 = completely
2	In our entrepreneurial team, I use a funny story to turn an argument in my favor.	In unserem Gründerteam nutze ich lustige Geschichten, um Diskussionen in meine Richtung zu lenken.	1 = not at all; 7 = completely
3	In our entrepreneurial team, we make us laugh at ourselves when we are too serious.	In unserem Gründerteam bringen wir uns dazu, über uns selbst zu lachen, wenn wir zu ernst sind.	1 = not at all; 7 = completely
4	In our entrepreneurial team, we use amusing stories to defuse conflicts.	In unserem Gründerteam nutzen wir witzige Geschichten, um Konflikte zu entschärfen.	1 = not at all; 7 = completely
5	In our entrepreneurial team, I use use wit to make friends of the opposition.	In unserem Gründerteam versuche ich Zweifler mit Witz auf meine Seite zu ziehen.	1 = not at all; 7 = completely

Appendix 6: Additional robustness checks to corroborate the results of Study III

Table A12. Alternative model specifications for the prediction of team and venture breakups

Variables	Full model using probit regression						Full model using linear regression and accounting for covariances of the dependent variables' error terms			
	→ Team breakup			→ Venutre breakup			→ Team breakup		→ Venutre breakup	
	β	SE	a.m.e.	β	SE	a.m.e.	β	SE	β	SE
Intercept	0.70†	0.42		0.15	0.40		0.69***	0.11		
Control variables										
Team size	0.21	0.15	0.06	0.00	0.14	0.00	0.06	0.04	–0.00	0.03
Gender (S.D.)	0.40	0.54	0.12	–0.39	0.58	–0.11	0.17	0.16	–0.04	0.16
Functional diversity	–0.28	0.18	–0.08†	–0.24	0.19	–0.07	–0.08	0.05	–0.07	0.06
Venture age	–0.13	0.12	–0.04	–0.18	0.12	–0.05	–0.04	0.04	–0.05	0.04
Venture stage§	–0.49	0.44	–0.14	–0.31	0.39	–0.09	–0.13	0.11	–0.08	0.11
Sales‡	–1.33***	0.42	–0.38***	–0.90*	0.38	–0.25**	–0.41***	0.10	–0.30**	0.11
Ext. funding#	0.14	0.33	0.04	0.20	0.34	0.06	0.02	0.10	0.03	0.10
Industry$										
Manufacturing	0.45	0.42	0.14	0.03	0.38	0.01	0.17	0.13	0.04	0.12
Wholesale trade	0.72	0.59	0.22	0.16	0.64	0.05	0.25	0.19	0.09	0.20
Retail trade	–4.36***	0.36	–0.36***	–4.49***	0.50	–0.32***	–0.22*	0.09	–0.17	0.11
Information	0.37	0.35	0.11	0.20	0.32	0.06	0.11	0.10	0.08	0.10
Finance and insurance	–0.69	0.74	–0.17	–4.89***	0.39	–0.32***	–0.16	0.20	–0.26*	0.12
Health care & social assist.	5.20***	0.76	0.64***	–5.16***	0.53	–0.32***	–0.49**	0.16	–0.33*	0.17
Arts, entert., & recreation	–0.26	0.63	–0.07	–0.64	0.72	–0.16	–0.01	0.19	–0.11	0.20
Accomodation & food serv.	0.12	0.64	0.04	0.18	0.74	0.05	0.09	0.21	0.16	0.27
Main effect$										
Env. hostility	0.37*	0.17	0.11*	0.38*	0.17	0.10*	0.11*	0.05	0.11*	0.05
Moderation effect$										
Team humor	–0.24†	0.13	–0.07†	0.04	0.13	0.00	–0.07†	0.04	0.00	0.03
Environmental hostility × Team humor	–0.47**	0.17	0.11*	–0.35*	0.16	0.11*	–0.13***	0.04	–0.09*	0.04
Var (ε Team Breakup)							0.17	0.02		
Var (ε Venture Breakup)									0.16	0.02
Cov (ε Team Breakup* ε Venture Breakup)							0.08***	0.02	0.08***	0.02
Nr. of teams	114						114			
AIC	301.26						285.29			
Log likelihood	–112.63						–103.64			

Notes. a.m.e. = average marginal effects; AIC = Akaike Information Criterion; All standard errors are robust standard errors. Two-tailed significance tests are reported: *** p < .001; ** p < .01; *p < .05; † p < 0.1.; § 1 = Early Stage, 0 = Late Stage; ‡ 1= Yes, 0 = No; # 1 = BA or VC funding; 0 = No BA or VC funding; $ Reference category: Professional, Scientific, and Technical Service

Table A13. Logit model for the prediction of team breakups for surviving ventures

Variables	Full model for surviving ventures → Team breakup		
	β	SE	a.m.e.
Intercept	2.48*	1.24	
Control variables			
Team size	0.69*	0.32	0.07*
Gender (S.D.)	1.96	1.35	0.20
Functional diversity	–0.36	0.61	–0.04
Venture age	–0.67†	0.39	–0.07†
Venture stage§	–2.66**	0.98	–0.28*
Sales‡	–4.36***	1.33	–0.46***
Ext. funding#	–0.59	0.82	–0.06
Industry$			
Manufacturing	0.97	1.47	0.12
Wholesale trade	0.62	1.10	0.07
Retail trade	–14.18***	1.45	–0.19***
Information	0.20	1.05	0.02
Finance and insurance	0.29	1.47	0.03
Health care & social assist.	17.88***	2.20	0.81***
Arts, entert., & recreation	0.00	1.70	0.00
Accomodation & food serv.	–0.33	1.34	–0.03
Main effect$			
Env. hostility	0.95*	0.40	0.12***
Moderation effect$			
Team humor	–0.83*	0.32	–0.09**
Environmental hostility × Team humor	–0.92†	0.55	0.10**
Nr. of teams	79		
AIC	90.89		
Log likelihood	–26.45		

Notes. a.m.e. = average marginal effects; AIC = Akaike Information Criterion; All standard errors are robust standard errors. Two-tailed significance tests are reported: *** p < .001; ** p < .01; *p < .05; † p < 0.1.; § 1 = Early Stage, 0 = Late Stage; ‡ 1= Yes, 0 = No; # 1 = BA or VC funding; 0 = No BA or VC funding; $ Reference category: Professional, Scientific, and Technical Service

Table A14. Logit models for the prediction of team and venture breakups without theoretically motivated control variables, and including team performance

Variables	Model without theoretically motivated control variables						Full model including team performance					
	→ Team breakup			→ Venutre breakup			→ Team breakup			→ Venture breakup		
	β	SE	a.m.e.	β	SE	a.m.e.	β	SE	a.m.e.	β	SE	a.m.e.
Intercept	–0.39†	0.20		–0.91***	0.22		1.34†	0.80		0.23	0.70	
Control variables												
Team size							0.26	0.29	0.04	–0.02	0.23	–0.00
Gender (S.D.)							0.58	1.00	0.09	–0.80	1.04	–0.13
Functional diversity							–0.49†	0.29	–0.08†	–0.42	0.34	–0.07
Venture age							–0.21	0.23	–0.03	–0.31	0.22	–0.05
Venture stage§							–1.15	0.83	–0.18	–0.53	0.71	–0.09
Sales‡							–2.27**	0.83	–0.36***	–1.50*	0.69	–0.24*
Ext. funding#							0.11	0.59	0.02	0.25	0.58	0.04
Team performance							–0.83*	0.40	–0.13*	–0.14	0.38	–0.02
Industry$												
Manufacturing							0.62	0.77	0.10	0.08	0.65	0.01
Wholesale trade							1.42	1.01	0.25	0.31	1.12	0.05
Retail trade							–14.22***	0.95	–0.36***	–14.01***	1.14	–0.31***
Information							0.62	0.63	0.11	0.36	0.57	0.07
Finance and insurance							–1.37	1.23	–0.18	–14.77***	0.83	–0.31***
Health care & social assist.							15.41***	1.51	0.64***	–15.12***	1.19	–0.31***
Arts, entert., & recreation							–0.15	0.96	–0.02	–1.01	1.25	–0.15
Accomodation & food serv.							0.55	1.08	0.09	0.55	1.35	0.10
Main effect$												
Env. hostility	0.59*	0.26	0.12**	0.68*	0.30	0.13*	0.61*	0.31	0.10*	0.69*	0.33	0.10*
Moderation effect$												
Team humor	–0.11	0.18	-0.03	0.16	0.18	0.02	–0.39	0.28	–0.06	0.09	0.23	0.01
Environmental hostility × Team humor	–0.53*	0.24	0.13*	–0.45*	0.22	0.14*	–0.84**	0.32	0.10*	–0.61*	0.28	0.11*
Nr. of teams	114						114					
AIC	291.97						300.03					
Log likelihood	–137.98						–110.02					

Notes. a.m.e. = average marginal effects; AIC = Akaike Information Criterion; All standard errors are robust standard errors. Two-tailed significance tests are reported: *** p < .001; ** p < .01; *p < .05; † p < 0.1.; § 1 = Early Stage, 0 = Late Stage; ‡ 1= Yes, 0 = No; # 1 = BA or VC funding; 0 = No BA or VC funding; $ Reference category: Professional, Scientific, and Technical Service