

PSYCHOLOGICAL SAFETY IN STARTUP ORGANIZATIONS

A Research Project

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Jessica Barhydt

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JESSICA BARHYDT

under the guidance of the Faculty Committee and approved by its members, has been submitted to and accepted by the faculty of The Graziadio Business School in partial fulfillment of the requirements for the degree of

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Faculty Committee

Committee Chair, Darren Good, Ph.D.

Committee Member, Miriam Lacey, Ph.D.

Deborah Crown, Ph.D., Dean
The Graziadio Business School

Abstract

Psychological safety is an individually held belief that a group is safe for interpersonal risk-taking. Scholars have studied the concept primarily as a team-level construct. However, recent studies suggest that climates of psychological safety exist at the organizational level. An examination of the dynamism of the construct at the organizational level is needed: how it grows, changes, and declines. Startups, which grow and change quickly, are an excellent context to study organizational psychological safety. Through interviews, this study explored psychological safety as an organizational-level construct in startup organizations. Specifically, it examined potential commonalities between high and low psychological safety as reported from participant experience working at startups and identified five dimensions that impact perceptions of psychological safety: Top Executive, Employee Characteristics, Senior Leadership, Business Performance, and Growth. These findings contribute to the nascent area of scholarship on organizational psychological safety and provide practical knowledge to the management of psychological safety.

Keywords: Psychological Safety, Startups, Organizational-Level, Dynamism, Employee Characteristics

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Chapter 1: Introduction

New business ventures, or startups, have become an essential part of the global economy. Global investment in new ventures hit an all-time high as recently as 2021. In North America alone, investors poured \$329.5 billion into startups, an increase of 92% from the previous record set in 2020 (Glasner, 2022). Despite these investments, the odds of successfully launching a new business are low. In fact, nine out of 10 startups fail (Patel, 2015). While the opinions and winning formulas of the 10% are many, most experts agree that a new venture's success comes from the ability to learn from failures quickly. As Shikhar Ghosh, startup leader and Harvard Business School professor, says in an interview, "The more that you can embrace all the little failures you have, and treat them as ways of improving the system, the less likely that the entire system will collapse" (Nobel, 2011, p. 2).

Examining and learning from failures can be difficult. It takes courage for an individual to admit they made a mistake, especially in a professional environment where their livelihood and reputation are at risk. Nevertheless, for a group striving to achieve something that's never been done, not admitting and examining mistakes can mean the death of their new business venture.

Psychological safety is described as "the shared belief held by members of a team that the team is safe for interpersonal risk-taking" (Edmondson, 1999, p. 350). The higher the levels of psychological safety within a team, the more likely people feel safe when admitting the product had a bug, the customer never wanted a particular feature, or the leadership was lacking. Commonly viewed and studied as a team-level construct, scholarship suggests that psychological safety should also be examined as an

organizational-level construct (Edmondson & Lei, 2014; Newman et al., 2017). Scholars also call for a deeper understanding of how organizational-level psychological safety grows and changes (Edmondson & Lei, 2014). Startups are an excellent context to study organizational-level changes to psychological safety because they grow more quickly than other organizations, often evolving from a small group of five to 10 people into a company of over 50, sometimes in a few short months. Additionally, teams within startups tend to be highly fluid, making it likely that psychological safety in startups exists as an organizational-level climate.

This study explores psychological safety as an organizational-level construct in startup organizations. It examines potential commonalities between moments of high and low psychological safety across multiple startups. It looks for common key indicators that psychological safety is increasing and decreasing at the organizational level. The intention is to contribute to collective knowledge of how the phenomenon grows, changes, and declines at the organizational level and to discover what a climate of high psychological safety looks like in startups.

Chapter 2: Literature Review

Startups or New Ventures

Definitions of what constitutes a startup vary across academic and practical business sources. Academics often refer to startup organizations as new ventures led by new venture teams (NVTs). A clear academic definition from the literature on NVTs defines a startup as “a firm that is in its early stages of development and growth. In general, such firms are in the process of bringing their initial products/services to market, forming a customer base, and putting into place organizational processes and procedures” (Klotz et al., 2014, p. 227). Business sources provide multiple definitions of what constitutes a startup. These sources generally agree on one key startup attribute: its ability to scale sales and operations rapidly. A frequently referenced definition posits, “If you are generating revenues below \$20 million, have less than 80 employees, and remain resolutely in control of the company you started, you’re likely running a startup” (Robehmed, 2013, p. 3).

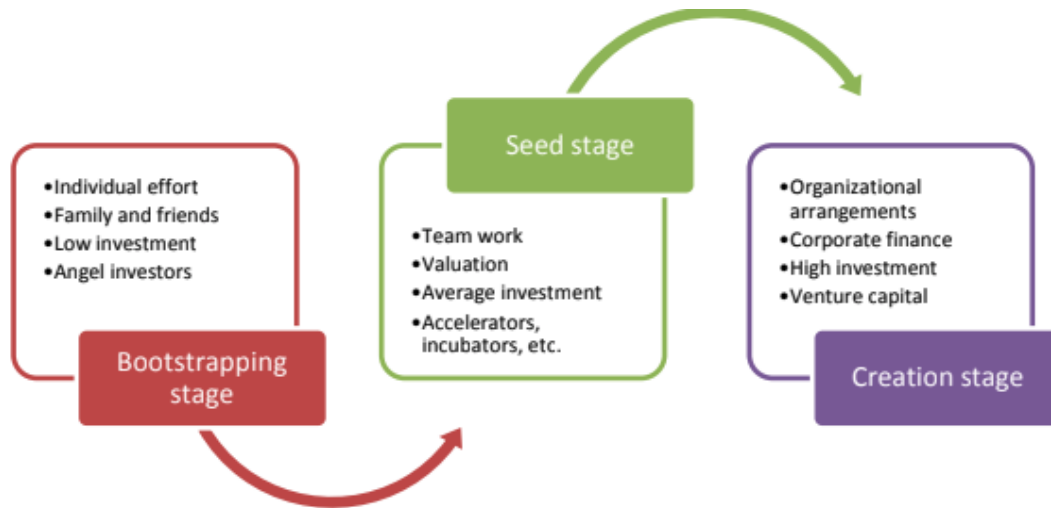
At the organizational level, some academic studies examine the relationships between startups and the venture capital firms that fund them, and some literature focuses solely on NVTs. Another body of work discusses entrepreneurship at the individual level (e.g., founders). There are limited studies that examine group dynamics and psychological safety in startups. Since startups are characterized by their attribute of growth, a vital question of this study is: “Are there certain common moments in the lifecycle of a startup where psychological safety is high?”

In their review of startup lifecycles and challenges, Salamzadeh and Kesim (2015) present a lifecycle model that moves in stages from bootstrapping to seed to creation

(Figure 1). They hold that the firm ceases to be a startup at the end of the creation stage when major financial institutions (e.g., banks) become the primary source of finance for the company.

Figure 1

Lifecycle of Startups



Klotz et al. (2014) present a slightly more complex and dynamic double model, showing the startup and new venture team's lifecycle. The initial startup stages are similar in these two models. However, a significant difference is that the Klotz et al. (2014) version ends with venture decline, signifying the end of growth or the plateau where demand for the company's goods and services stops increasing.

Psychological Safety

Although the behaviors of admitting to, examining, and learning from mistakes benefit organizations and teams, they can be risky for employees. For an individual, these behaviors pose a threat to face or image (Brown, 1990). According to Brown (1990), challenging the status quo is risky. Few people want to point out mistakes of themselves or of others, nor do they wish to publicly question the competence of themselves and

others (1990). However, when failures and mistakes are addressed directly, organizations have a better chance of learning and increasing performance (Edmondson & Lei, 2014). An environment of psychological safety can make it easier for individuals to examine and learn from mistakes (Edmondson & Lei, 2014).

Psychological safety describes “a shared belief held by members of a team that the team is safe for interpersonal risk-taking” (Edmondson, 1999, p. 350). When the perception of interpersonal safety is high, individuals are likely to speak up, disagree, or provide critique in group settings without fear of personal retribution. When one feels psychologically safe, it is more likely they will “show and employ one’s self without fear of negative consequences to self-image, status or career” (Kahn, 1990, p.708).

While psychological safety is primarily viewed as a group concept, individuals within the same group may perceive or experience different levels of psychological safety.

However, for psychological safety to be high within a group, there must be a similar level of individual perception that the group is safe for risk-taking (Edmondson, 1999).

Research has linked climates of high psychological safety within groups to higher levels of group learning and performance (Edmondson & Lei, 2014). As work is increasingly complex and conducted across matrixed, cross-functional teams consistently forming and reforming, the importance of interpersonal trust and collaboration is growing (Newman et al., 2017). Put simply, “psychological safety matters greatly for workplace effectiveness” (Edmondson & Lei, 2014, p. 36).

History of the Concept

Bennis and Schein (1965) introduced the concept of psychological safety. Bennis and Schein (1965) shared findings on how individuals learn and change. They describe

psychological safety as the extent to which an individual feels secure enough to learn and change. Thus, they refer to it as a prerequisite for personal change.

Organizational scholars originally focused their attention on discussions around interpersonal safety. Kahn (1990) found that people need three psychological conditions (i.e., meaningfulness, safety, availability) to express and employ their personal selves at their places of employment. Khan (1990) defined personal engagement as “the harnessing of organization members’ selves to their work roles” (p. 694), showing that individuals involve themselves physically, cognitively, and emotionally in their roles when engaged. Schein (1992) described psychological safety as a critical factor for overcoming learning anxiety in the workplace. Schein (1992) advised leaders to employ the carrot management approach to ensure the people in their organizations felt safe enough to experiment with new skills and, in doing so, make mistakes.

Edmondson (1996, 1999) linked psychological safety to learning and demonstrated that psychological safety is a perception held by an individual about how a group will respond to them. Edmondson (1999) defined the concept as “a shared belief held by members of a team that the team is safe for interpersonal risk-taking” (p. 350) is widely used as the modern definition of psychological safety. The developed scale has strong psychometric properties, measures psychological safety at the team level, and has also been used and found effective at the organizational level (Newman et al., 2017).

Most studies focus on teams within large organizations (Duhigg, 2016; Edmondson, 1999). However, there are no academic studies on psychological safety as an organizational-level climate in startups or new business ventures. This opens the door for this research to step foot in a new direction.

Areas for Future Research

Two recent literature reviews (Edmondson & Lei, 2014; Newman et al., 2017) highlighted areas for further research. Both reviews recommend the following five areas for future focus:

- Further investigation into the boundary conditions for psychological safety.
- More cross-cultural comparisons to identify the impact of different cultural values, such as power distance orientation, on the perception of psychological safety.
- Alternative methods of research, such as hybrid qualitative/quantitative approaches, longitudinal surveys, and observational techniques, to add credibility to the phenomena.
- Organizational-level studies.
- More multi-level and cross-level studies across the individual-team-organization span.

Edmondson and Lei (2014) also call for a more dynamic examination of psychological safety to see how it unfolds, builds, shrinks, or is destroyed. Newman et al. (2017) suggest further investigation into its adverse effects and supportive human resources practices that engender it at the organizational level.

Organizational Level Psychological Safety

Most of the literature and research on psychological safety deals with the phenomena at the group or team level, partly because multi-level studies have found significant variance in levels of psychological safety between teams within the same organization (Edmondson & Lei, 2014). Newman et al.'s (2017) meta-analysis found 29

studies measuring individual perceptions of psychological safety, 42 studies at the team level, and only two studies at the organizational level (i.e., Baer & Frese, 2003; Carmeli, 2007). Both studies indicate that psychological safety is likely more potent and meaningful at the team level rather than at the organizational level. However, they also point out that a more consistent climate of psychological safety may exist within smaller organizations whose members frequently collaborate or in organizations with strong cultures (Newman et al., 2017). Edmondson and Lei (2014) and Newman et al. (2017) highlight the need for further research at the organizational level. Startup companies are hopeful subjects for this research, given their relatively small size, typically prominent cultures, and a higher likelihood of significant cross-team interaction.

Because this thesis is concerned with psychological safety at the organizational level, this review focuses on studies and literature written about that level while acknowledging that there is significantly more analysis of the following concepts at the individual and team levels. The following sections look at literature connecting psychological safety to several related topics which likely impact startups, including learning from failure, performance, leadership, innovation and creativity, culture, and supportive organizational practices.

Learning from Failure

Multiple studies show that the behavior or ability to discuss failures productively and subsequently learn from them is linked to organizational effectiveness (Edmondson, 1999; Michael, 1976; Schein, 1993; Sitkin, 1992). Carmeli's (2007) corporate-level study of 33 organizations in Israel looked at the connection between social capital, psychological safety, and the ability of organizations to learn from failure. Carmeli

(2007) defined social capital as the resources (e.g., knowledge, ideas, opportunities) that move through internal and external networks. Carmeli (2007) found that in organizations with high social capital (i.e., significant sharing of knowledge, ideas, and opportunities), psychological safety and learning from failures were enabled.

Furthering this line of research, Carmeli and Gittell (2009) explored the mediating role of psychological safety between high-quality relationships and learning from failure behaviors at the organizational level. They defined high-quality relationships as consisting of three primary features: shared goals, shared knowledge, and mutual respect. They found that such relationships promote learning from failures by enhancing psychological safety. Conversely, they found that high-quality relationships enhance psychological safety. In a similar study composed of large hospital units, Hirak et al. (2011) found that a climate of psychological safety positively contributed to organizational learning from failure, which in turn enhanced work performance.

Leadership

Hirak et al. (2011) looked at the impact of leader inclusiveness on psychological safety, finding that leaders who demonstrated inclusive behaviors played a significant role in fostering environments safe for learning (2011). A more recent multi-level study found that when psychological safety and knowledge sharing are present, leaders who demonstrate humble leadership (willingly admitting their own mistakes and limitations) contribute to increased creativity across levels within the organization (Wang et al., 2018). Divergent from the points of view of previous scholars on cross-level psychological safety, Wang et al. (2018) agree that “a focus on just one level is likely to provide an incomplete, or even inaccurate, understanding” (p. 7) of the connection

between leadership and psychological safety, due to the trickle-down effect of executive leadership styles. Their findings are significant for two reasons. First, startup founders and leaders often have an outsized influence on an organization's culture. When combined with psychological safety, humble leadership provides a roadmap for them to increase creativity. Second, the effects of psychological safety, when combined with other phenomena such as humble leadership, impact entire organizations.

A third organizational-level study examined psychological safety between mentors and mentees in China. The authors found that the presence of psychological safety in the mentoring relationship decreased turnover intention and increased the amount of formal mentorship provided (Chen et al., 2013). They also looked at the power distance orientation of the mentees (the extent to which they accepted unequally distributed power, as defined by Hofstede in 1984), finding that the lower the power distance orientation of the mentee, the more formal mentoring they received (Chen et al., 2013). Their findings are significant because first-generation immigrants have founded more than half of the most successful startup businesses (e.g., unicorns: startups that have reached a \$1 Billion valuation) in the U.S. First and second-generation immigrants have founded over two-thirds of U.S. unicorns (Anderson, 2022). Thus, when looking at psychological safety in startups, we may see variations from more established companies based on cultural differences and the power distance orientation of the founder(s).

Performance and Innovation

Baer and Frese (2003) found that climates of high psychological safety positively impacted the firm-wide performance of mid-sized companies, especially when combined with environments of initiative-taking. Out of the companies studied, only the ones with

high climates of psychological safety and initiative could innovate their processes.

“Innovation is not enough and needs to be complemented by climates for initiative and psychological safety to be brought to its full potential” (Baer & Frese, 2003, p. 61). The authors suggest that attempts to innovate without these two climates may fail and have adverse effects. Their results indicate that psychological safety can be viewed not only as a team-level construct but also as an organizational-level construct (Baer & Frese, 2003). Cataldo et al. (2009) complement Baer and Frese (2003), showing that psychological safety was necessary for the success of organization-wide change initiatives.

Another study looked at the relationship between psychological safety, diversity climate, and performance at a mid-sized U.S. production company (Singh et al., 2013). Singh et al. (2013) found that the organizational environments of psychological safety and diversity contributed positively to individual employee performance, regardless of race. They suggest that these two climates “may also help mitigate individual fears associated with identity expression, paving the way for individual performance” (p. 259).

Another study looked at small and medium-sized enterprises (SMEs) in Norway, positively linking high psychological safety to high levels of innovation performance and capabilities (Andersson et al., 2020). Furthermore, Andersson et al. (2020) found that an environment of psychological safety was vital for radical innovation (as opposed to incremental innovation), which they define using Subramanian and Youndt’s (2005) explanation: “the capability to generate innovations that significantly transform existing products and [or] services” (p. 452). Lastly, Andersson et al. (2020) discovered that “the advantageous effects of psychological safety are particularly pronounced in contexts characterized by high environmental dynamism” (p. 11). The authors reinforce Baer and

Freses' (2003) view that psychological safety should be examined as an organizational-level construct, adding the suggested boundary condition of high dynamism. This set of findings provides justification for this study, as startups are generally SMEs, have environments with relatively high dynamism, and generally aim to innovate radically.

Supportive Practices

Two projects have analyzed the ties between supportive human resources practices, positive social climates (e.g., psychological safety), and performance. In a study of 136 technology companies, Collins and Smith (2006) discovered that firms saw higher levels of organizational trust and knowledge sharing when they practiced commitment-based human resources (defined as demonstrated investment in the employee-employer relationship). These two climates resulted in increased revenue from new products and services and sales growth (Collins & Smith, 2006). Meanwhile, Carmeli and Zisu (2009) identified the positive relationship between organizational trust, perceived corporate support, and psychological safety. They showed that the presence of all three climates impacts the studied organizations' ability to demonstrate high-quality internal audits (i.e., to look for and identify internal failures directly and indirectly).

Chapter 3: Methods

Sample

This study utilized data from in-depth, video interviews with 10 individuals about their experience working in startups. An interview script was utilized with open-ended questions. At the start of the interview, participants were provided a definition of psychological safety at the organizational level and given the opportunity to ask clarifying questions about the concept.

Individuals were recruited using my professional network and contacted via email, text, and LinkedIn messaging. Many participants spoke about their experiences working at multiple companies, leading to study data referencing 18 unique startups. Participants were from diverse job levels, functions, and industries (Table 1). The startup stage also varied, ranging from pre-funding to post-IPO and post-acquisition.

Table 1***Participant and Lifecycle Characteristics***

Job Levels		Departments	
Manager	33.3%	Human Resources	22.2%
Vice President	27.8%	Marketing	22.2%
Senior Management	16.7%	Operations	22.2%
Director	11.1%	Executive	11.1%
Founder	5.6%	Engineering	11.1%
CEO	5.6%	Sales	5.6%
		Creative	5.6%
Industries		Stages	
Software	38.9%	Late	44.4%
Retail	16.7%	Mid	27.8%
Unknown	16.7%	Early	16.7%
Social Media	11.1%	Multiple	11.1%
Hardware	5.6%		
Design	5.6%		
Consumer Packaging	5.6%		

Procedures

Because no research exists on psychological safety at the organizational level within startups, this study was exploratory and took a qualitative approach (Morse, 1991). Phenomenological research design is a method in which the researcher examines the

lived experiences of individuals about phenomena as described by the participants, generally through interviews (Creswell, 2017). A phenomenological approach was appropriate because psychological safety is a concept that depends on the individual's subjective perception of interpersonal safety.

Interviews were developed based on the core research goals of advancing the understanding of psychological safety in startup organizations to deepen the collective knowledge of how the construct grows, changes, and declines at the organizational level. The pragmatic hope for the research was to uncover ways to increase psychological safety in startups to improve the experience of startup employees and increase the likelihood of business success. With these goals in mind, seven opened-ended questions were developed, drawing from the following core research questions:

- Are there certain common moments in the lifecycle of a startup where psychological safety is high?
- Are there certain common moments in the lifecycle of a startup where psychological safety is low?
- Do certain common events trigger increases or decreases in psychological safety?

This study utilized Edmondson's (1999) definition of psychological safety as a climate in which individuals feel safe to take risks and express their opinions without fear of personal retribution. It relied on the perspective that psychological safety exists at the organizational level (Andersson et al., 2020; Baer & Frese, 2003; Edmondson & Lei, 2014), particularly in smaller organizations with stronger cultures (Newman et al., 2017). The study used a combination of Robehmed's (2013) and Klotz et al.'s (2014)

descriptions of a startup, defining it as a new business venture in growth mode with less than \$20 million in revenue, fewer than 80 employees, and whose founders still control the business.

Analysis

Data was collected via recorded video interviews and handwritten notes.

Interview data was transcribed from the video interviews, coded, and analyzed using Tesch's Eight Steps (Creswell, 2017). Five key themes were identified. The primary themes which emerged from the study, in order of highest to lowest occurring, included:

- 1) Top Executive
- 2) Employee Characteristics
- 3) Senior Leadership
- 4) Business Performance
- 5) Growth

Each of these themes had positive and negative impacts on the climate of psychological safety within the startups discussed.

Chapter 4: Results

Top Executive

In this study, the term “top executive” refers to the most senior person involved in the company's daily operations. The most common title for the top executive was founder, followed by CEO, president, and chairman of the board. A description of the top executive’s impact on psychological safety was the most common theme arising from this study. Participants described that impact as noticeably positive or noticeably negative.

Modeling Behavior

Top executives increased psychological safety in their organizations when they modeled certain leadership behaviors, including publicly owning up to their own mistakes, publicly appreciating when employees admitted their mistakes, being open about what they did not know, showing their personal vulnerability, and consistently addressing and resolving interpersonal conflict. As one participant described,

Our CEO is a big proponent of owning up to your mistakes. He will happily own up to his mistakes, and he really appreciates it when people own up to their mistakes. Not that he's happy someone accepted blame but more that he rewards it. The first thing he says is, ‘Thank you. I don't care why you did it, and I'm not here to blame you. I'm just here to solve the problem.’

Meanwhile, the top leader lowered psychological safety when they publicly shut down others’ ideas, fired people (including co-founders) suddenly or without a meaningful or appropriate explanation, and demonstrated personal conflicts of interest with the business, such as consulting with competitors and giving away business secrets. One participant described an early-stage venture's chaos and its impact on their ability to contribute:

The co-founders kept firing each other, which I didn't even know was possible. So every day, there was a different co-founder, except one person who stayed. So, I

felt like I couldn't bring ideas right. So, I was trying to say, maybe we should do this. Maybe we should do that. And they would say, actually, you should just do [the job we hired you for]. So they were, you know, surprisingly close-minded.

Organizational Structures and Processes

Top executives were described as positively impacting psychological safety when they actively worked to balance power in their organizations, held their senior leadership teams and employees accountable to business goals and financial objectives, and worked intentionally to foster a safe culture and environment. One startup CEO described,

When the employees realized I was serious about coming to work and about working, they became more confident. So psychological safety increased. No question about it. They felt like they were being held responsible. Then they took their jobs seriously, and they felt like they could do that. They felt like things were going to work.

Personal Characteristics and Experience

The personality and experience of the leader in charge stood out to participants, although there were many different interpretations of what this meant. Some participants felt that when the top executive had prior experience leading a company, psychological safety was higher than when that individual was a first-time founder or leader. Others felt that charismatic leaders created a sense of security within the organization, especially when the survival or success of the business was at risk. Increases and decreases in organizational-level psychological safety were also attributed to how the founder or founders felt emotionally at any given moment in the company's evolution.

Employee Characteristics

Employee characteristics were important to participants' perceptions of psychological safety in their organizations. Employee characteristics refer to the types of individuals hired and valued by the organization. Participants believed that when their

organizations valued employees with a solid personal identity or sense of self, this contributed to higher levels of psychological safety. Meanwhile, individuals who depended on external validation to boost their sense of self (often described as anxious and overachieving) tended to erode psychological safety.

Authentic Weirdos

There were varied descriptions of startup environments that valued people with strong, diverse individual identities and senses of self. Two later-stage companies encouraged their employees to be authentically themselves, making it clear that everyone belonged. As one participant described,

They had a really good way of doing things that made you feel like you could speak up if you needed to or be your authentic self. They literally called it, ‘keep it weird,’ and would ask you like, what is the weird thing about you? What makes you special? And so, you could kind of feel like you could be yourself there.

An earlier-stage startup encouraged its employees to model risk-taking behaviors and personal self-expression. One startup leader noted that when employees realize the startup dream is “fake” and can separate their sense of self from the success or failure of the business, psychological safety increases around them.

Anxious Overachievers

Conversely, many participants felt that the types of people attracted to working at their startups, who generally “got 90% of the [entire company’s] work done” exhibited characteristics and behaviors that demonstrated a personal perception of low psychological safety. The presence of this type of employee contributed to lower psychological safety in the organization overall. According to one participant, these are the anxious overachievers, individuals who “have so much trauma in your background that...you're attuned to the anxiety of it,” and described by another participant as, “A

person who is never actually going to feel psychologically safe. Their view of psychological safety is someone constantly telling them they're doing a good job. And even that is like a dopamine hit. It's something they have to keep feeding.”

Creatives and Engineers

Startups with larger creative design and engineering departments related to higher levels of psychological safety. Study participants attributed this to design training and creative review processes requiring multiple critiques. Creatives and designers are trained to give and receive direct feedback and criticism. Meanwhile, engineers “see things in black and white terms,” focusing on solutions and avoiding personal blame when conducting product and incident review processes or post-mortems. When both groups cross-functionally demonstrated these characteristics and behaviors, psychological safety increased in the company.

Senior Leadership

Like the top executive theme, senior leaders impacted psychological safety in both positive and negative ways. They were seen as positive influences when they embodied and modeled the positive values and behaviors of the company’s culture, protected their teams (sometimes from volatile top executives), role-modeled healthy conflict, and demonstrated vulnerable sharing, defined by one individual as being honest about when they had made a mistake or did not have all the answers. Participants generally felt that most of the senior leaders that made a positive impact were experienced, “high caliber,” or “mature” executives. Senior executives negatively influenced psychological safety when they “gaslit” their employees into working overtime or accepting lowered pay. Senior leaders in first-time leadership roles, because

they had grown with the startup, were believed to be unable to foster psychological safety because they spent their energy fighting for their own survival within the company.

Business Performance

Business performance had various relationships to the climate of psychological safety, and moments of high psychological safety were attributed to both high and low points of business performance.

Low Business Performance

Surprisingly, many participants believed that psychological safety reached a high point when business performance was low. Examples of low business performance included reduced sales (to the point that the business was at risk of going under), failure to secure funding, and failure to exit via an initial public offering (IPO) or acquisition. At these moments, the company had “nothing to lose” by doing things differently. Employees felt more empowered and shared more of their ideas, suggestions, and critiques. In several cases, senior leaders and top executives actively solicited contributions and employee feedback, making it clear that the company needed to “try something new.” This solicitation and increased sharing contributed to elevated psychological safety within the organization. As one participant described,

The business was looking to do something new. It wasn't having as much success as it used to...So I found that people there were very receptive to new ideas...And so I really found in that situation that my voice was truly heard and listened to, and they wanted ideas from me.

High Business Performance

Some participants described high business performance as correlated to higher climates of psychological safety. Examples provided were when the company accomplished something viewed as an impossible task, such as an IPO or significant

funding round, or when the product was good. Participants felt that the company had endless possibilities and uses for their invention or product at these moments, leading to perceptions of higher trust and safety.

Meanwhile, most participants who believed psychological safety to increase when business performance declined also shared that it declined when the business was succeeding. This was attributed to the fact that when things were going well, there was a general belief within the company that they should keep doing what they had been doing. Employees' opinions, feedback, and critiques were significantly less welcomed.

Growth

The rate at which a startup company grew was connected to different levels of psychological safety within the organization. High growth, sometimes referred to by participants as rapid growth or hyper-growth, had a different impact on psychological safety than slow or steady growth. Every participant who had been through a period of rapid growth described such growth as negatively impacting their perception of psychological safety within the company and destabilizing company operations and other interpersonal and group dynamics.

Rapid hiring (due to high growth) was considered the primary cause of lowered psychological safety in all cases. During periods of rapid hiring and onboarding, interpersonal conflict increased. Hiring processes were truncated and became less thorough, causing hiring managers and recruiters to lower their standards, especially when evaluating candidates for their interpersonal skills. As the companies doubled or tripled in size, sometimes in a few months, roles and responsibilities became less clear. Participants felt they had fewer trusting relationships with their coworkers since trust-

building takes time. Factions and conflict formed between employees with longer tenure, who knew each other well, and people that had recently joined the company: “You start to have like more people forming their own groups or factions. The newer people would be one faction; the older people, the existing people, tend to be their own team.”

Chapter 5: Discussion and Conclusion

This study used 10 qualitative interviews to further the collective understanding of psychological safety in startup organizations. The interview data provided rich, narrative accounts of how startup employees from diverse industries, functional areas, and job levels experienced the highs and lows of psychological safety within their companies. This answered the call from Edmondson and Lei (2014) for further research into the dynamism of psychological safety, and from both Edmonson and Lei (2014) and Newman et al. (2017) for further research on organizational-level psychological safety. This study also filled a gap in the literature regarding startups and psychological safety. The data surfaced five key dimensions that appear to impact psychological safety at the organizational level in startups: Top Executive, Employee Characteristics, Senior Leadership, Business Performance, and Growth.

The study found that startups' top executives and senior leaders can noticeably positively or noticeably negatively impact how their employees perceive psychological safety, confirming the findings of Hirak et al. (2011) and Wang et al. (2018) that leadership impacts organizational-level psychological safety.

This study found that certain characteristics of a startup organization's employee base influence psychological safety. The presence of individuals with a strong sense of self or personal identity and the encouragement of authentic self-expression positively influenced perceptions of psychological safety. This suggests that Singh et al.'s (2013) findings linking psychological safety, diversity, and performance may be valid in the startup environment. The presence of anxious individuals seeking external validation for their work negatively influenced perceptions of the construct. Additionally, individuals

trained in creative design and engineering helped build psychological safety due to their ability to give and receive feedback and criticism.

Data indicated that high psychological climates occur during high and low business performance points. Surprisingly, moments of very low business performance were generally correlated with moments of higher psychological safety. This confirms that Baer and Frese (2003) and Cataldo et al. (2009) were correct when they found that organizational-level psychological safety enables innovation and change.

Lastly, the interview data strongly suggests that periods of rapid growth, especially rapid hiring, in startups caused perceptions of organizational-level psychological safety to decrease due to the company-wide decrease in quality interpersonal relationships. Periods of slow growth generally contributed to the perception of higher climates of psychological safety.

Implications

The findings from this study confirm several existing studies on psychological safety as an organizational-level concept (Baer & Frese, 2003; Cataldo et al., 2009; Hirak et al., 2011; Singh et al., 2013; Wang et al., 2018), provide important information about psychological safety to startup leaders and employees, and suggest new areas for research.

First, this is one of the few examinations of psychological safety at the organizational level and one of the first studies that look at the dynamism of the concept, as called for by Edmonson and Lei (2014). It contributes to our understanding of startups as organizations, in addition to NVTs or groups of people whose behavior is characterized by the personality or leadership style of the founder(s).

Second, this study builds on the findings of Hirak et al. (2011) and Wang et al. (2018), showing that humble and inclusive leadership behaviors increase the perception of psychological safety at the organizational level. It also distinguished between top executives and senior leaders, finding that both groups can positively influence psychological safety.

Third, this study identified specific employee characteristics as having positive and negative impacts on the perception of psychological safety. Individuals with strong personal identities contributed positively to psychological safety, while those looking for external validation were seen as negatively impacting the climate of psychological safety. This builds on the findings of Singh et al. (2013) linking psychological safety and diversity. Future research should be conducted to explore further the multi-level influence of individual characteristics on organizational-level psychological safety.

Lastly, this study identified two important correlations between business performance and climates of psychological safety in startups. Moments of low business performance, or crises in the business, were shown to increase perceptions of psychological safety. Meanwhile, moments of rapid growth and rapid hiring were shown to decrease perceptions of psychological safety. Startup leaders can use these findings to prepare for the highs and lows of psychological safety in their organizations.

Limitations

Because this study was an exploratory investigation of psychological safety at the organizational level in startups, it presents several limitations.

First, this study intentionally collected interview data from participants who spoke about their experience working at 18 unique companies. While it identified key

dimensions and themes shared between these different organizations, it could not confirm whether multiple employees shared these perceptions of high and low psychological safety within the same organization. Further research, including quantitative studies using Edmondson's (1999) 7-item scale should be conducted to look at and measure shared perceptions of psychological safety within the same startup organization.

Second, this study used a specific definition for startups that included parameters of under \$20 million in revenue, 80 employees or fewer, and founders still primarily controlling the business (Klotz et al., 2014; Robehmed, 2013). However, many participants could not identify or distinguish between times when there were more than 80 employees and when revenues were higher than \$20 million. Most participants defined the end of the startup era of the business as the exit moment when the company either went public or was acquired. This is like the definition provided by Salamzadeh and Kesim (2015). However, in some cases, the startup era extended past the exit or funding moment as long as the original founders remained in control. Thus, further research should expand the definition of a startup to include higher revenues and employee counts and, in some cases, extend past the liquidity or acquisition moment.

Conclusion

This paper examined psychological safety at the organizational level in startups. It identified five important dimensions influencing startup employees' perceptions of psychological safety in their organizations. It identified common moments of low psychological safety and high psychological safety across a diverse set of startups.

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