



“Stop crying your heart out”: how failed founders can use emotional failure narratives

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Received: 30 September 2022 / Accepted: 24 May 2023 / Published online: 7 June 2023
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Abstract

Failed founders experience very intense emotions resulting from their entrepreneurial failure. Since many founders are not discouraged by failure and consider founding a subsequent startup, the need to deal with the stigma attached to failed founders. Applying an experimental research design, this study investigates how failed founders can use emotional failure narratives to approach potential co-founders for their subsequent venture project. We demonstrate that the use of failure narratives that contain both negative and positive emotions lead to higher perceived attractiveness of a failed founder’s new startup attempt among potential co-founders than either purely negative or positive emotional failure narratives.

Keywords Emotion as social information theory · Entrepreneurial emotions · Entrepreneurial failure · Failure narratives

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1 Introduction

Entrepreneurial failure has long been a neglected field in entrepreneurship literature (Klimas et al. 2021; Haynie and Shepherd 2009; Kibler et al. 2017), but has recently drawn increased interest from scholars and practitioners (Rhaiem and Amara 2021; Cacciotti et al. 2016; Khelil 2016). While creating a startup already represents an emotional journey (Baron 2008; Cardon et al. 2012), failed founders exhibit emotions with an even greater intensity and diversity in the context of entrepreneurial failure (Byrne and Shepherd 2015; Simmons et al. 2014; (Wolfe and Shepherd 2015a; Yamakawa et al. 2015). We follow Shepherd's (2003, p. 318) suggestion to use an objective defining criterion, namely insolvency, which is widely accepted to define entrepreneurial failure (e.g. Eberhart et al. 2017). Failure is often experienced as a wounding or even traumatizing event (Cope 2011; Mueller and Shepherd 2016; Shepherd 2003; Singh et al. 2015), it is therefore particularly associated with negative emotions (Czakov et al. 2022).

Despite these often-experienced physiological burdens (Klimas et al. 2021), many failed founders do not let themselves be discouraged by failure and consider founding a subsequent startup, while learning from prior experiences (Rhaiem & Amara, 2021). As early stage ventures' survival, growth and success depends heavily on human resources, the recruitment of qualified co-founders, represents a demanding and key task (Greer et al. 2016; Mayson and Barrett 2006; Moser et al. 2017). Previously failed founders may find approaching and finding potential co-founders even harder to master, since they are often stigmatized, and might suffer diminished personal reputation from intrapersonal status loss, irrespective of why their business folded (Klimas et al. 2021; Eberhart et al. 2017; Nielsen and Sarasvathy 2016; Rider et al. 2015; Simmons et al. 2014).

The use of specific failure narratives may be a possible solution to solve this problem, as narratives have been shown to influence investment decisions (Pan et al. 2020). Since investigations into failure narratives only began recently (Byrne and Shepherd 2015; Mantere et al. 2013; (Wolfe and Shepherd 2015a), it remains unclear whether they are also a valuable tool to exert influence on *others*, particularly in the context of attracting potential co-founders. We address this gap by answering the following research question: *How can failed founder's use emotional failure narratives to increase the attractiveness for their subsequent startup?* We apply emotions as social information (EASI) theory (Van Kleef 2009; (Van Kleef et al. 2010b) in an experimental research design and find that a failed founder's emotional expressions induce affective reactions and inferences in potential co-founders, which shape their perceptions of the new startup's attractiveness.

Based on these findings, we provide several important theoretical and practical implications to entrepreneurship literature concerning entrepreneurial opportunities (Bachmann et al. 2021; Khanin et al. 2022) and failures (Klimas et al. 2021). First, we extend the current entrepreneurship literature on emotions, which previous quantitative studies largely focused on how a *distinct* emotion exerts influence on a founder's *own* decisions. Conversely, this study investigates how complex emotional expressions influence *interpersonal* entrepreneurial behaviors, a perspective that to date has largely been ignored in entrepreneurship research (Doern and Goss, 2014;

Van Kleef et al. 2012). Second, we contribute to extant literature on entrepreneurial failure (Czakov et al. 2022; Klimas et al. 2021) and narratives (Ingardi et al. 2021; Mantere et al. 2013). We extend Byrne and Shepherd's (2015) qualitative findings on emotional failure narrative by providing one of the first explanatory studies, which demonstrates that failure narratives are also a valuable tool to exert influence on others. Besides operationalizing and empirically testing Byrne and Shepherd's patterns regarding negative and positive emotional failure narratives, we also explore and validate the function of ambivalent emotional expressions, which have been largely neglected in entrepreneurship research (Byrne and Shepherd 2015; Methot et al. 2017; Rothman et al. 2017; Rothman and Melwani 2017).

2 Conceptual background and hypotheses development

2.1 Emotions as Social Information (EASI) Theory

While entrepreneurship is often described as an emotional journey, providing a rich source for so-called *entrepreneurial emotions* (Cardon et al. 2012), failed founders are likely to be emotional when talking about their failure. Previous functional approaches to emotions have centered around an *intrapersonal* perspective, aiming to provide answers to how a person's emotional experience can serve as a source of information to the self (Schwarz and Clore 1983, 2003) and thus affect an individual's *own* (decision making) behavior ((Van Kleef et al. 2010b). For linking both research themes – the effect of expressing emotions by failed founders, and the search for information for evaluating entrepreneurial opportunities to co-found – we draw on insights from EASI theory (van Kleef 2009; van Kleef, Anastasopoulou, & Nijstad, 2010a). EASI theory offers theoretical explanations for the effect of emotions between a sender and receiver, considering emotions as a source of information for the receiver (van Kleef 2009).

EASI theory (Van Kleef 2009; Van Kleef et al. 2011) focuses on the social functions and consequences of emotions. More precisely, EASI theory proposes that an individual's emotional expressions – irrespective of whether emotions are expressed verbally, vocally, symbolically, via body language, or facial displays – comprise additional information to the receivers, which in turn socially influence them (e.g. Keltner and Haidt 1999; Van Kleef 2017, 2009; Van Kleef et al. 2011). In this context, exerting influence can take many forms, including affecting others' cognitions, impressions, attitudes, emotions, and/or behaviors (Keltner and Haidt 1999; Van Kleef et al. 2011). Besides this overall perspective, EASI theory states that social influence in response to emotional expressions can be caused due to two different mechanisms: *inferential processes* and *affective reactions* (Van Kleef 2009; Van Kleef et al. 2011; (Kleef et al. 2010b).

First, a sender's emotional expressions can evoke inferential processes in a receiver. As emotions can be perceived as communications (Schwarz and Clore 1983, 2003), their expression provides a receiver with additional information and may reveal the sender's personality, character, thoughts, attitude, competencies and judgement about the situation at hand, their underlying motives and behavioral intentions, and/or their

relational orientation (Keltner and Haidt 1999; Manstead and Fischer 2001; Rothman and Melwani 2017; Van Kleef 2017; Van Kleef et al. 2012; Kleef et al. 2011). Second, a sender's emotional expression may induce an affective reaction in a receiver, such as *emotional contagion* (Hatfield et al. 1994), which in turn may influence a receiver's (decision making) behaviors owing to different types of *affect infusion* (Forgas 1995; Forgas and Bower 1988; Van Kleef 2009).

As suggested by EASI theory, a co-founder's perceptions of a founder's new startup's attractiveness may be influenced by a founder's emotional failure narrative in two ways. On the one hand, a founder's emotional failure narrative may influence startup attractiveness by evoking *inferences* concerning the founder's performance during his/her first startup attempt. On the other hand, a founder's emotional failure narrative may also trigger *affective reactions* in the potential co-founders, which may then influence their perceptions of the attractiveness of the founder's new startup.

2.2 Inferential processes in response to emotional failure narratives

As a first path of exerting interpersonal influence, a sender's emotional expressions may induce inferential processes in receivers (Keltner and Haidt 1999; Van Kleef et al. 2011). Expressed emotions may contain valuable information that allow a receiver to draw conclusions about how the sender evaluated this preceding event or activity (Manstead and Fischer 2001; Van Kleef et al. 2011). Thus, emotional failure narratives can inform potential co-founders about how the failed founder judges the event of entrepreneurial failure, which may also reveal valuable information about how he assesses his own previous performance as a founder. Concerning the hypothesized development, we used the negative emotional failure narrative (and *not* the non-emotional failure narrative) as a reference base, since entrepreneurial failure is most often experienced as a hurting event and individuals have a strong tendency to share their emotions (Rimé 1995; Rothman and Melwani 2017). In line with Byrne and Shepherd's (2015) findings on emotional failure narrative patterns, we center negative emotional failure narratives around expressions of sadness, worry, regret, and guilt. In the following, we will briefly elaborate on the aforementioned emotions' signaling effect.

Concerning negative emotions, sadness generally occurs in response to a definitive loss or when expectations have not been met, while worry emerges in expectation of bad events (Clark et al. 1996; Clark and Taraban 1991; Lazarus 1991; (Van Kleef et al. 2010b). As such, sadness signals dependency and neediness (Clark and Taraban 1991) as well as an outward focus (van Kleef 2009). In respect with failed founder narratives, expressed sadness of a failed founder may signal to potential co-founders that the founder was not capable of succeeding with the startup due to own misconduct or inability, while worries may signal low confidence in succeeding. Further empirical evidence concerning negotiations show that negotiators who receive expressions of guilt and regret make little concessions to the sender (van Kleef, Dreu, & Manstead, 2006) and guilt or regret are said to be caused when someone feels responsible for having violated norms or moral obligations (Frijda 1993; Hillebrandt and Barclay 2017).

A negative emotional failure narrative that jointly contains these four mentioned emotions indicate that the progress towards this previously set objectives was insufficient and faulty (Sy et al. 2005). Thus, it signals that the failed founder is unsatisfied with his personal performance during his previous startup project (van Kleef, Anastasopoulou, & Nijstad, 2010a). Consequently, a potential co-founder may infer that the failed founder reflected the prior performance but is not capable to do better in the future, leading to doubts concerning the founder's performance in the future.

In contrast, positive emotional failure narratives comprise the joint expressions of happiness, pride, confidence, and enthusiasm (Byrne and Shepherd 2015). Prior research suggests that happiness and pride should generally elicit when objectives or a progress towards them have been achieved (Lazarus 1991). Similarly, enthusiasm describes the extent of enjoyment, excitement and pleasure in response to a completed task and can therefore be seen as the emotional component of motivation (Kunter et al. 2008; Pekrun 2006). Closely related to these emotions is confidence, which is less a distinct emotion, but rather a positive outcome of an individual's emotional self-evaluation in terms of competencies and/or worth (Cast and Burke 2017). In sum, this means that if a failed founder uses a positive emotional failure narrative the signals that the founder feels competent, and overall satisfied with previous performance and achievements despite the business failure, signaling confidence and self-esteem. Subsequently, we expect co-founders to have positive performance inferences with expressions of positive emotions by a failed founder.

Regarding ambivalent emotional failure narratives (containing all eight emotions of positive and negative narratives), we argue that both signals resulting from expressed emotions are likely to cancel each other out. This consideration is based on Fredrickson's suggestions that positive emotions which interact with negative ones create an *undo* mechanism and therefore have a compensatory effect (Tugade and Fredrickson 2002, 2004). Thus, initial negative performance inferences about the failed founder owing to the negative emotional part of the mixed narrative should immediately be mitigated due to the following positive emotional part of the narrative, which arouses positive inferences. As a result, the effect of negative emotions should be reduced or only moderately exceeded owing to positive emotions ((Wolfe and Shepherd 2015a). We expect similar results for the use of a non-emotional failure narrative, even though this should arouse neither negative nor positive performance inferences about a failed founder. For instance, van Kleef et al. (2004) found that receivers of non-emotional statements are more willing to cooperate with others than when being confronted with negative emotions, while Kibler et al. (2021) found non-affective failure narratives as indicative for little need of emotional recovery of the failed founder. Consequently, a co-founder may infer that the failed founder is focused and satisfied with the prior performance. We state:

Hypothesis 1: *Compared to a founder's negative emotional failure narrative, the use of (H1a) a positive emotional failure narrative, (H1b) an ambivalent emotional failure narrative, and (H1c) a non-emotional failure narrative induces more positive performance inferences in a potential co-founder.*

2.3 Affective reactions in response to emotional failure narratives: emotional contagion and impressions

Despite inferential processes, a sender's emotional expression can also arouse affective reactions in receivers, which can influence the latter's judgements and behavior (van Kleef et al. 2009). Thus, affective reactions may occur via *emotional contagion* and associated *impressions* (van Kleef 2009), which are substantially intertwined. *Emotional contagion* refers to a process that the sender's expressed emotions may be directly transferred to a receiver, who therefore may instantly experience the same or – depending on the situational context – a complementary emotional state (van Kleef 2009). Accordingly, the transferred emotions influence the impressions and interpersonal liking (van Kleef 2009). Thus, expressing emotions of negative valence may create negative impressions and may decrease interpersonal liking, while positive emotions favor positive impressions and arouse sympathy (Clark and Taraban 1991), which has been supported by previous leadership research in the context of the effects of a leader's expressed emotions on team members (van Kleef et al. 2009). As such, managers may impose more positive impression and be perceived as more pleasant, benevolent, charismatic or generally positive among others, to the extent they express positive emotions (Ashkanasy and Tse 2000; Bono and Ilies 2006; Johnson 2009).

In this regard, the process of emotional contagion is not restricted to the transmission of discrete emotions, i.e. the same principles apply for complex and ambivalent emotional states which include several emotions of the same valence (Methot et al. 2017; Rothman and Melwani 2017). Thus, if a failed founder relies on emotional failure narratives, the potential co-founder may even catch a bundle of these expressed emotions. This means that a failed founder's negative emotional failure narrative should evoke negative emotions within prospect co-founders, while positive emotional failure narratives should have the contrary effect. With respect to emotionally ambivalent failure narratives, it is likely that emotions of both positive and negative valence are elicited within the potential co-founder, while a non-emotional failure narrative should arouse little to no emotions.

As prior research found emotional contagion in several contexts like negotiation or in work environments (van Kleef et al. 2009), we argue that emotional contagion comes along with impressions and interpersonal liking also in the context of potential co-founders. Concerning emotional failure narratives, it is likely that failed founders who use negative emotional failure narratives trigger negative emotions within their potential co-founders due to emotional contagion, which decreases their interpersonal liking, while positive emotional failure narratives should generally have the opposite effect (van Kleef 2009). Consequently, we assume that the use of ambivalent emotional failure narratives should simultaneously evoke negative and positive emotions. Fredrickson's (Tugade and Fredrickson 2002, 2004) suggestions about positive emotions' compensatory effect on negative emotions apply. Thus, initial negative impressions about a failed founder resulting from the negative emotional part of an ambivalent emotional narrative should be diminished owing to the narrative's following positive emotional part, which arouses positive impressions and liking. Accord-

ingly, the same applies to the use of a non-emotional failure narrative, despite the fact that it should elicit neither negative nor positive impressions. We state:

***Hypothesis 2:** Compared to a founder's negative emotional failure narrative, the use of (H2a) a positive emotional failure narrative, (H2b) an ambivalent emotional failure narrative, and (H2c) a non-emotional failure narrative induces more positive affective reactions in a potential co-founder.*

2.4 The influence of epistemic motivation of the predictive strength of performance inferences and affective reactions

The moderating hypotheses consider how the relative predictive strength of the effects (i.e., performance inference and affective reaction) can differ based on characteristics of the potential co-founder by: (1) different ways they process information for recognizing business opportunities (Khanin et al. 2022), and (2) drawing attention to cognitive and situational factors (van Kleef 2009). By making inferences regarding the emotional expressions of failed founders, emotions can act as sources of information (van Kleef 2009), i.e., potential co-founders can use the information the entrepreneurial opportunity evaluation process, which depends on evaluator's characteristics (Klusmann et al. 2021). Here, an important and prominent concept for exploiting and recognizing business opportunities is entrepreneurial self-efficacy (Bachmann et al. 2021), i.e. an individual's belief in its own capabilities (Bandura 1995).

Following EASI theory, we argue that the mechanism how self-efficacy influences the relationship can be explained with the receiver's epistemic motivation (van Kleef et al. 2009). Epistemic motivation describes an individual's willingness to expend effort to achieve a thorough and accurate understanding of the situation at hand (Kruglanski 1989), meaning that higher levels of epistemic motivation result in a comparatively diligent information search and processing before decisions are made (Kruglanski et al. 1993; Van Kleef et al. 2011). However, the reason why individuals are more epistemically motivated, is due to the fact that they have less confidence in their own knowledge and abilities and therefore experience higher levels of uncertainty. Since this self-confidence represents the core-idea of the self-efficacy construct (Bachmann et al. 2021; Salmony and Kanbach 2022), i.e. an individual's belief in its capabilities (Bandura 1995), we propose that also lower levels of self-efficacy describe a circumstance which heightens information processing motivation:

***Hypothesis 3a:** Potential co-founders with lower levels of self-efficacy draw more favorable inferences regarding the failed founder's previous performance and react less affectively in response to an emotional failure narrative than potential co-founders with higher levels of self-efficacy.*

While an individual's motivation for information processing is partially rooted in its personality, it may also be affected by the situational and social-relational context (Van Kleef et al. 2012). Previous studies (Van Dijk and Vermunt 2000; (Van Kleef et al. 2010a; Kleef et al. 2006) have shown that the relative power between negotia-

tors can influence an individual's information processing depth, with higher levels of power reducing epistemic motivation (Fiske and Depret 1996). Specifically, a negotiator's behavior in a less powerful position is stronger influenced by inferential processes than due to affective reactions, while the opposite applies for negotiator's in a more powerful position (van Kleef, Dreu, & Manstead, 2006). We expect these findings to be transferable to the negotiation between a failed founder and a new business idea and a potential co-founder, as both parties have self-interests and need to negotiate about the terms of co-founding. With respect to a first negotiation between a failed founder and a potential co-founder, we expect the initial power distribution to be relatively balanced. However, when the potential co-founder reveals his fundamental motivation for creating a startup (whether due to necessity or voluntarily to pursue a promising opportunity), this additional piece of information causes a power shift between both parties. Power can arise from expertise and knowledge (French and Raven 1959). However, entrepreneurs that are driven by necessity in developed countries mostly have basic education and experiences stem from low-skilled jobs (Poschke 2013). Hence, they engage in entrepreneurship for fulfilling their safety needs (security and financial needs) (Dencker et al. 2021). Accordingly, we assume that potential co-founders driven by necessity will be in a considerable weaker negotiation position as they have low power due to a lack of experience or specialized knowledge (Dencker et al. 2021). In contrast, opportunity-driven entrepreneurs in developed countries engage in entrepreneurship when they acquired the capabilities and skills for entrepreneurial activities (Block and Wagner 2010), and are characterized by voluntarily quitting a job for pursuing an opportunity. Accordingly, skilled opportunity-driven entrepreneurs will have more power, which is associated with low levels of epistemic motivation (van Kleef et al. 2006). In line with EASI theory, we propose that the mechanisms outlined in EASI theory considering epistemic motivation are inherent in this study's setting in the co-founder's fundamental motivation for founding a startup. Therefore, we hypothesize:

***Hypothesis 3b:** Potential co-founders driven by the necessity to found a startup draw more favorable inferences regarding the failed founder's previous performance and react less affectively in response to an emotional failure narrative than potential co-founders who rather pursue an opportunity voluntarily.*

2.5 The influence of performance inferences and affective reactions on the attractiveness of a founder's new startup

Once a receiver has made inferences about a sender's expressed emotions, these may shape his subsequent behavior (Van Kleef et al. 2011). Inferences regarding a founder's previous venture performance may strongly influence how attractive a potential co-founder perceives a new startup to be, since at the very early stage a startup's survival, growth and success depend strongly on the founder or the initial founding team, respectively (Dai et al. 2016; Jung et al. 2015; Zuzul and Tripsas 2019). When startups are in their infancy and have limited access to resources, they are very vulnerable (Cardon et al. 2005) and are subject to obstacles, referred to as

liability of smallness (Aldrich and Auster 1986), and it is the founder's responsibility to overcome these challenges. Unsurprisingly, perceptions of better performing founders master these challenges more easily and can therefore strongly increase the likelihood of their startup's survival and success (Klimas et al. 2021). Thus, potential co-founder may use their performance inferences regarding a founder to estimate the likelihood of the new startup's survival and success. Given that co-founders seldom consider engaging in a startup for reasons of entrepreneurial lifestyle, it can be assumed from the preceding rationale that the potential co-founders perceive a startup as more attractive when the likelihood of survival and success are higher (Khanin et al. 2022). Therefore, we hypothesize:

Hypothesis 4: *More favorable inferences regarding the failed founder's previous performance positively influences potential co-founders' perceptions of the attractiveness of the founder's new startup.*

Once a sender's expressed emotions have induced affective reactions within the receiver – whether it be via emotional contagion, elicited impressions or both – the resulting current emotional state is likely to influence the receiver's evaluations and decisions (van Kleef et al. 2009). If interpersonal affective reactions were triggered via emotional contagion, different mechanisms of *affect infusion* can shape subsequent behavior (Forgas 1995; (Van Kleef et al. 2010b). As an intrapersonal approach to emotions, the affect infusion model (Forgas 1995) proposes two mechanisms, namely *affect-as-information* and *affect priming*, to explain how evoked emotional states influence (i.e. infuse) subsequent decision making regarding events, persons or stimuli (Baron 1998).

Besides being induced via emotional contagion, affective reactions can take the form of positive or negative impressions and interpersonal liking (Hareli and Hess 2010) which in turn may influence decision-making behavior even more directly ((Van Kleef et al. 2010b). Corresponding to the elicited impression, one will deny or show helpfulness and cooperativeness towards the sender (Clark et al. 1996). This applies, in particular, in situations such as interviews or negotiations, since the evoked impressions may strongly influence the willingness for further interaction (van Kleef et al. 2006).

Based on the preceding considerations, a co-founder's affective reactions may influence his evaluation regarding the founder's new startup attempt, as follows: For instance, a potential co-founder can use the induced positive affective reactions as an additional source of information, leading him to perceive the new startup attempt as worth the entrepreneurial risk. The aroused positive feeling states may stimulate positive associations about the upsides of entrepreneurship, as positive feelings enhance willingness to collaborate (van Kleef 2009). Finally, the triggered positive impressions about a founder might lead a potential co-founder to perceive the cooperation with the founder as pleasant and unproblematic (van Kleef et al. 2009). Thus, in sum, the more positive affective reactions are induced in potential co-founders, the more they should perceive the failed founder's new startup to be attractive. We propose:

Hypothesis 5: *More positive affective reactions in response to the failed founder's emotional failure narrative will positively influence potential co-founders' perceptions of the attractiveness of the founder's new startup.*

The research model and the hypotheses are summarized in Fig. 1.

2.6 Research design

2.6.1 Case development

To introduce sufficiently attractive entrepreneurial opportunities, we used recent announcements about new foundations and startup profiles (provided by technology-focused news portals such as techcrunch.com, venturebeat.com, and fastcompany.com) to develop a range of 14 business opportunities and corresponding business models. For preparing the main study, we conducted two pre-tests to identify suitable business opportunities and business models. First, we presented the 14 business models to 16 academic experts for innovation management and business models. We asked them to rate the innovativeness and realism of the business opportunities (based on Spieth and Schneider 2016). Afterwards, we conducted the second pre-test with respondents (via a commercial provider) that rated the opportunities and business models (the three most innovative and realistic one resulting from the academic rater's assessment) based on their innovativeness. For the second pre-test, we only included respondents that are job-seekers and/or can imagine to quit their job for an entrepreneurial opportunity (Moser et al. 2017) and that have relevant

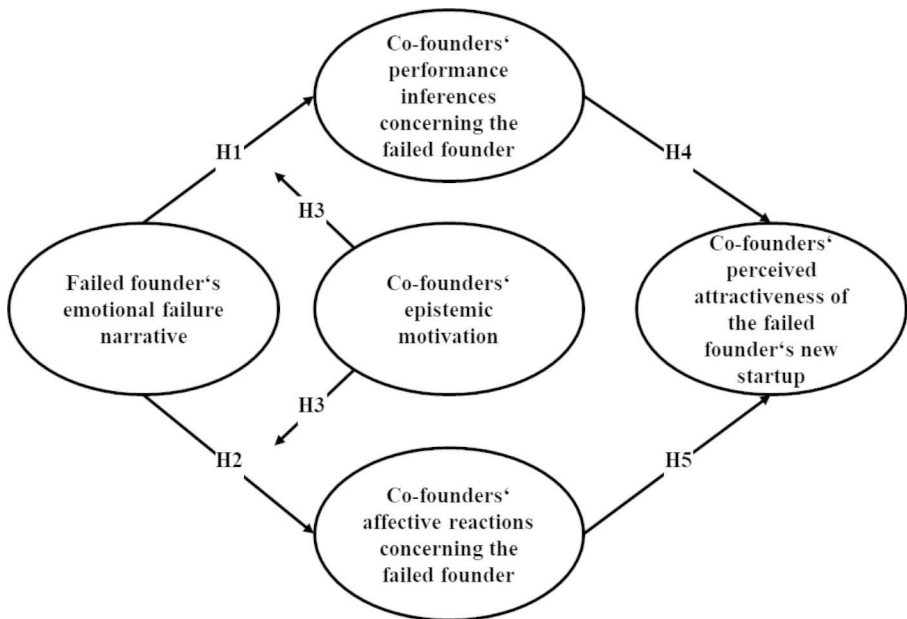


Fig. 1 Research Model

industry knowledge (of the respective business models). This procedure ensured that respondents are qualified for assessing the innovativeness of the business models and opportunities, resulting in 231 respondents. For assessing the innovativeness of the business model, we used the items from Spieth and Schneider (2016). After two pre-test rounds, we chose the most appealing opportunity with what the participants perceived to be the most innovative and profitable business model for the main study.

Furthermore, we developed four failure narratives representing the fictitious failed founder's emotional state after experiencing entrepreneurial failure with his first founding attempt. We derived the narratives from quotes about failure in Byrne and Shepherd's (2015) multiple-case study findings. In these case studies, Byrne and Shepherd (2015) found three emotional states resulting in narratives with [1] high negative and low positive emotions, and [2] high positive and low negative emotions, and [3] low negative and low positive content (cf. e.g. p. 396). In line with these findings, we formulated [A] a failure narrative with only high negative emotional content as a control scenario, [B] a failure narrative with only high positive emotional content, and [C] a failure narrative with no emotional content. We added [D] a scenario comprising failure narratives that simultaneously expressed high negative and high positive emotions. Although Byrne and Shepherd's study did not contain this type of case, they noted that it "would be interesting to explore the notion of ambivalence" (Byrne and Shepherd 2015, p. 396). Similar to the aforementioned pre-test procedure for developing business opportunities and the respective business models, we developed the cases in the course of two pre-tests (first with so as to ensure comprehensibility and realism. In these pre-tests, we asked respondent to assess the emotional content of the narratives with six items asking for the expressed emotions and checked for their realism and comprehensibility with items adapted from Huk (2006) and Wagner et al. (2009) (n=92). The results from the pre-tests indicated that the failure narratives reflect the intended emotional content. The detailed scenarios are available from the authors upon request.

2.6.2 Procedure

To test the proposed set of hypotheses, we conducted a scenario-based experiment with a 1×4 between-subject design by manipulating the expression of emotions of failed founders. Each respondent was randomly assigned to one of the following scenarios: failure narrative without emotions as a control group (1), failure narrative with positive emotions (2), with negative emotions (3), and with both positive and negative emotions (4). Data were gathered via an online survey in collaboration with a professional German online panel provider. We followed Roach and Sauermann's (2015) suggestions to consider extant literature which has focused to explain entrepreneurial activities on the individual level, in order to identify suitable candidates for our study, and to ensure homogeneity between all experimental groups. Therefore, participants had to answer several questions regarding their industry experience, entrepreneurial knowledge, self-efficacy, entrepreneurial passion, personality traits (autonomy, persistence) and motivation at the start of the experiment. Only participants who sufficiently fulfilled the aforementioned criteria (respective mean values ≥ 3.0 on a Likert-scale with 7 indicating the maximum), were allowed to continue

the survey¹. We finished the first section by asking participants about their entrepreneurial motivation (Aparicio et al. 2016; Boudreaux et al. 2019; Bourl and Cozarenco 2018): whether they would rather consider to create a startup due to necessity (e.g. under conditions of unemployment) or on a voluntarily basis to pursue an attractive opportunity and take advantage of it (Kirkwood 2009). Correspondingly, we asked the participants to allocate themselves to one of the two types of entrepreneurial motivation.

In the next section of the questionnaire, participants received a brief definition of the term *business model* and its three constitutive dimensions, so as to be able to evaluate the subsequently introduced startup's business idea. To ensure unbiased evaluations regarding the startup's underlying opportunity, participants first evaluated the opportunity, the innovativeness of its underlying business model and its perceived profitability. Only participants who perceived the opportunity and its business model as sufficiently attractive (respective mean values ≥ 3.0 on a Likert-scale with 7 indicating the maximum)², were allowed to continue the survey. Afterwards, each of the participants was randomly assigned to one of the four scenarios, to exclude any biases. In each scenario, the fictitious founder introduced himself and made use of one of the four failure narrative. At the end of each scenario, we ran manipulation checks, and participants evaluated their own affective reactions as well as the founder's perceived effectiveness in response to the emotional failure narrative. Each of the participants was then asked to envision an offer from the introduced founder to join the startup as a co-founder and subsequently evaluated the startup's attractiveness. Participants were explicitly instructed to consider both the presented business opportunity and the introduced founder when making their evaluations regarding startup attractiveness. After the experimental part, the questionnaire ended with controls.

2.6.3 Sample

On average, participants finished the survey within 29 min. Owing to the startup's case's complexity and the survey length, we followed Meade and Craig's (2012) recommendation and included bogus items to ensure a higher data quality. The final sample consisted of 209 participants (76 females, 132 males, 1 unknown) of which 61.2% would consider themselves rather as necessity-driven co-founders. The average age was 32 years (standard deviation=5.4 years), which is representative for the German startup community with an average age of 35 years (German Startup Association, 2018) as well as the gender distribution of founders in Germany (58% male

¹ Although 3.0 on a 7-point Likert-scale is below the average of 3.5, we chose 3.0 as a criterion for including participants. Thus, we assume that a mean value ≥ 3.0 is sufficient for inclusion, as a value of 3 does not reflect completely "negative" values but a minimum level of experience, knowledge, self-efficiency etc., ensuring a sufficient basic knowledge and experience.

² Similarly to the explanation concerning the inclusion criterion in respect with individual characteristics above, we deem mean values of 3.0 or higher as sufficient for the opportunity evaluation, as 3.0 does not represent a strict rejection of the opportunity and business model. Furthermore, we conducted statistical (Kruskal-Wallis) tests to ensure that that differences in the co-founder's perceptions of attractiveness regarding the founder's new startup can be solely attributed to the specific failure narrative and not to the opportunity (as outlined in the results).

in 2021; KfW 2022). Concerning industry experience, 68.1% had work experience in the information technology/software sector, 47.4% in retail, and 6.7% in logistics with a specialty in warehousing.

2.6.4 Measurements

Manipulation Checks. To assess the perceived emotional valence of the failure narratives, we created four items (e.g. *'When talking about his previous startup, the founder expressed positive emotions.'* $\alpha=0.74$). In addition to the manipulation checks, we included realism checks ($\alpha=0.80$) and comprehensibility checks ($\alpha=0.86$), which we adapted from Huk (2006) and Wagner et al. (2009), respectively.

Variables to Identify Potential Co-founders. We used single items to measure the participant's entrepreneurial knowledge (*'How much knowledge do you have about how to start a venture?'*; Tumasjan et al. 2012), their preference for autonomy and persistence (*'When thinking about an ideal job, how important is it to you to be able to make independent decisions and choose your tasks?'* and *'When I fail in something, I am determined to continue trying until I succeed.'*; Roach and Sauermann 2015). In order to measure entrepreneurial passion, we utilized three items from Cardon et al.'s (2013) sub-scale to measure passion for founding ($\alpha=0.81$) and passion for developing, respectively ($\alpha=0.76$). Since the participants were asked to evaluate a given opportunity, we excluded the entrepreneurial passion sub-scale for inventing. Self-efficacy was measured with the general self-efficacy measurement by Schwarzer and Jerusalem (1995) comprised of 10 items ($\alpha=0.92$). Due to the aforementioned criteria for selecting appropriate participants, we followed suggestions by previous studies (Strobel et al. 2011; Tumasjan et al. 2012) to utilize the general self-efficacy scale than entrepreneurial self-efficacy scale (Chen et al. 1998) in order to achieve higher levels of variance.

Opportunity-related Variables. In line with previous studies (Grichnik et al. 2010), we measured the presented entrepreneurial opportunity with three items adopted from (Keh et al. 2002), such as *'To what extent do you judge this business idea as an opportunity/chance?'* ($\alpha=0.70$). By also considering Schumpeter's (1934) overarching theme of an opportunity's newness (Zott and Amit 2007), we adapted three items from Spieth and Schneider (2016) to measure the business model's innovativeness ($\alpha=0.81$), since the business model concept can be considered an assisting mechanism to evaluate opportunities (Merrilees 2007). Finally, we measured perceived profitability using three items from Welpe et al. (2012) ($\alpha=0.91$).

Affective Reactions and Inferences Regarding the Founder. First, we adapted Watson et al.'s (1988) positive and negative affect schedule (PANAS) to measure affective reactions in response to the emotional failure narrative. It contains 10 positive and 10 negative reactions (e.g. *'When talking about his previous founding experience, the founder made me feel excited.'*; $\alpha=0.82$). Second, we adapted three items from Van Kleef et al. (2009) to assess the liking of the founder in response to the failure narrative (e.g. *'The founder made a positive impression on me.'*; $\alpha=0.93$). In line with previous studies on interpersonal effects of emotions (Van Kleef et al. 2009), we integrated the two correlated subscales ($r_{\text{Pearson}} = 0.62, p < 0.001$) into one single scale to measure affective reactions ($\alpha=0.86$). With respect to inferences about the

founder's previous performance, four items were used as also suggested by Van Kleef et al. (2009) and adapted to this study (e.g. 'When talking about his previous founding experience, I feel that the founder was satisfied with his own performance.'; $\alpha=0.88$).

Startup Attractiveness. In order to measure the dependent variable, i.e. the introduced startup's attractiveness, we adapted Highhouse et al.'s (2003) five-item scale to the corresponding co-founder perspective (e.g. 'A co-founder position at this startup is very appealing to me.'; $\alpha=0.83$).

Control Variables. Finally, we asked the participants about socio-demographic controls, such as age, gender, income, work experience, and city size to determine whether the participants were familiar with a start-up culture, which is more likely to occur in larger cities (Moser et al. 2017). Due to the context of this study, we additionally included controls regarding entrepreneurial experience, entrepreneurial failure experience and fear of failure (Lang and Fries 2006). We applied seven-point Likert scales for all measurements.

2.7 Data analysis and results

2.7.1 Manipulation checks and additional checks concerning the sample distribution

Two-tailed t-tests indicated significant differences concerning the co-founder's perceptions of the founder's expressed emotions. Table 1 illustrates the results for the manipulation check. First, the tests showed each failure narrative's perceived emotional valence corresponded to the intended emotional valence. For instance, potential co-founders considered the failed founder to be in a more positive than a negative state when the latter used a positive emotional failure narrative. This applied accordingly to the other emotional failure narratives. Second, comparing each of the founder's emotional failure narratives with the negative emotional failure narrative (as a reference scenario) revealed that co-founders perceived the founder to be in a more positive state when the latter used a positive, an ambivalent or a non-emotional failure narrative than when using a negative emotional failure narrative. Similarly, when

Table 1 Results for the Manipulation Checks

	Condition				TOTAL (n=209)
	Negative emotional failure narrative (n=56)	Positive emotional failure narrative (n=46)	Ambivalent emotional failure narrative (n=62)	Non-emotional failure narrative (n=45)	
Perceived positive emotional content	M=2.55 (SD=1.35)	M=5.01*** (SD=1.38)	M=4.45*** (SD=1.56)	M=2.88 (SD=1.35)	M=3.73 (SD=1.74)
Perceived negative emotional content	M=5.75 (SD=1.40)	M=2.05*** (SD=1.13)	M=4.26*** (SD=1.49)	M=2.30*** (SD=1.41)	M=3.75 (SD=2.03)
Realism of the narrative	M=5.60 (SD=1.03)	M=6.03 (SD=0.95)	M=5.97 (SD=1.03)	M=5.50 (SD=1.34)	M=5.75 (SD=1.17)
Comprehensibility of the narrative	M=5.88 (SD=1.33)	M=6.31 (SD=0.91)	M=6.24 (SD=1.17)	M=6.25 (SD=1.14)	M=6.16 (SD=1.16)

Note: *** = difference to negative emotional failure narrative significant at $p<0.001$

using a negative emotional failure narrative, the failed founder's emotional state was perceived as more negative than in comparison to the other failure narratives. Finally, the use of an ambivalent emotional failure narrative resulted in a higher perception of both positive and negative emotions. Besides checks regarding the emotional content, manipulation checks regarding the realism and comprehensibility of each narrative indicated no significant differences between the negative emotional failure narrative and the remaining three narratives. In sum, these findings show that the manipulation of the founder's emotional failure narratives was successful.

Following our two-step selection process, only participants who, on the one hand, adequately met the demands of a potential co-founder and, on the other hand, perceived the introduced opportunity as sufficiently promising, were allowed to participate in the experiment. Table 2 provides the corresponding mean values, standard deviations and correlations of the potential co-founder- and opportunity-related variables.

First, we conducted separate Kolmogorow-Smirnow tests to investigate whether the mediating variables (i.e. affective reactions and performance inferences) and the dependent variable (i.e. startup attractiveness) were approximately normally distributed. The test results were significant, indicating that the assumption of normal distribution for each variable was violated (performance inferences: $D(209)=0.194$, $p<0.001$; affective reactions: $D(209)=0.074$, $p<0.05$; startup attractiveness: $D(209)=0.109$, $p<0.001$).

Owing to the fact that only participants were allowed to continue the survey who perceived the opportunity and its business model as sufficiently innovative and profitable (respective mean values ≥ 3.0 on a seven-point Likert-scale, see Table 2), additional Kolmogorow-Smirnow tests on these opportunity-related variables revealed that they were also not normally distributed (opportunity evaluation: $D(209)=0.12$, $p<0.001$; business model innovativeness: $D(209)=0.08$, $p<0.01$; perceived profitability: $D(209)=0.13$, $p<0.001$). To ensure that differences in the co-founder's perceptions of attractiveness regarding the founder's new startup can be solely attributed to the specific failure narrative (and thus to the founder in person) and not to the opportunity, we conducted Kruskal-Wallis tests on the three opportunity-related variables. The tests revealed that there were no statistically significant differences between groups with respect to the startup's underlying opportunity ($H(3)=0.19$, n.s.), its business model innovativeness ($H(3)=4.20$, n.s.) and its perceived profitability ($H(3)=0.06$, n.s.). Thus, it can be excluded for the following analysis that differences concerning the potential co-founders' perception regarding the founder's new startup project result from different evaluations in terms of opportunity-related aspects.

2.7.2 Results regarding induced performance inferences (H1)

First of all, the socio-demographic control variables had no significant influence on our outcome variables. Hypothesis 1 proposed that a founder's positive emotional failure narrative (H1a), an ambivalent emotional failure narrative (H1b) and a non-emotional failure narrative (H1c), respectively, triggers more favorable inferences regarding the failed founder's performance than a negative failure narrative.

Table 2 Mean Values, Standard Deviations, and Correlations of the Selection Criteria for Participants

Variable	1	2	3	4	5	6	7	8
Entrepr. Knowledge								
	M=3.63 (SD=1.55)							
Entrepr. passion for founding	0.27**							
	(M=5.06 SD=1.07)							
Entrepr. passion for developing	0.15*	0.43**						
	(M=5.11 SD=1.07)							
Self-Efficacy	0.28**	0.40**	0.44**					
	(M=5.17 SD=0.80)							
Autonomy	0.16*	0.18**	0.26**	0.32**				
	(M=5.50 SD=1.19)							
Persistence	0.19**	0.28**	0.32**	0.39**	0.29**			
	(M=5.15 SD=1.16)							
Opportunity evaluation	0.10	0.11	0.17**	0.21**	0.10	0.12		
	(M=5.42 SD=0.98)							
Business model innovativeness	0.07	0.20**	0.16*	0.12	0.22**	0.13	0.44**	
	(M=5.03 SD=1.13)							
Perceived profitability	0.09	0.04	0.09	0.12	0.14*	0.15*	0.59**	0.37**
	(M=4.98 SD=1.21)							

Note: ** = Correlation is significant at the 0.01 level (2-tailed)

* = Correlation is significant at the 0.05 level (2-tailed).

We conducted a Kruskal-Wallis test which revealed that there were statistically significant differences regarding performance inferences about the failed founder in response to the various failure narratives ($H(3)=9.96$, $p=0.01$) with a mean rank score of 84.37 for the negative emotional failure narrative, 117.28 for the positive failure narrative, 112.06 for the ambivalent emotional failure narrative, and 108.39 for the non-emotional failure narrative. Thus, to compare the induced performance inferences pair-by-pair, we conducted Mann-Whitney U-tests and applied Bonferroni-corrected post hoc tests. The results are shown in Table 3 and only partially support H1. While H1a and H1b were confirmed, H1c was deemed to be incorrect. In line with previous studies of interpersonal effects of emotions (Hillebrandt and Barclay 2017), we also compared the remaining possible combinations of failure narratives in the sense of an exploratory approach without formally derived hypotheses. However, these additional comparisons of performance inferences resulting from failure narratives did not reveal any further significant differences.

2.7.3 Results regarding induced affective reactions (H2)

H2 proposed that a founder's negative emotional failure narrative induces less positive affective reactions in co-founders than positive emotional failure narratives (H2a), ambivalent failure narratives (H2b), and non-emotional failure narratives (H2c), respectively.

Similarly, to the testing of the previous hypotheses set, we again conducted a Kruskal-Wallis test, which revealed that there was a statistically significant difference regarding to the co-founder's positive affective reactions in response to the different failure narratives ($H(3)=39.04$, $p<0.001$) with a mean rank score of 65.13 for the negative emotional failure narrative, 135.96 for the positive emotional failure narrative, 117.44 for the ambivalent emotional failure narrative, and 105.83 for the non-emotional failure narrative. Thus, to compare the triggered affective reactions pair-by-pair, we conducted again Mann-Whitney U-tests and applied Bonferroni corrections. The results are shown in Table 4, fully supporting H2.

2.7.4 Results regarding the moderating effect of information processing thoroughness resulting from the fundamental motivation for becoming a co-founder (H3)

H3 proposed that a potential co-founder's information processing depth and strength of affective reactions depends on his epistemic motivation, which can result from his degree of self-efficacy (H3a) and/or his fundamental motivation for founding a startup (H3b).

In order to test each hypothesis, we conducted separate sample splits for each treatment group (i.e., each group with a specific emotional failure narrative) with respect to the self-efficacy median (median=5.30) or to the participant's fundamental motivation for becoming a co-founder (i.e. being necessity-driven or opportunity-driven). To compare the two sub-samples of each failure narrative, we conducted a series of Mann-Whitney tests. The results do not support our hypothesis, which therefore had to be rejected.

Table 3 Results of the Mann-Whitney U-tests with Respect to Induced Performance Inferences

Comparisons of performance inferences in response to the emotional failure narratives (pair-by-pair)			
	Negative emotional failure narrative (n=56)	Positive emotional failure narrative (n=46)	Ambivalent emotional failure narrative (n=62)
Positive emotional failure narrative (n=46)	Mean rank_{neg.} = 44.62 Mean rank_{pos.} = 59.88 U = 902.50; p < 0.05 r = 0.263		
Ambivalent emotional failure narrative (n=62)	Mean rank_{neg.} = 50.88 Mean rank_{mixed} = 67.28 U = 1253.00; p < 0.05 r = 0.247	Mean rank _{pos.} = 56.40 Mean rank _{mixed} = 53.09 U = 1159.50; n.s. r = 0.159	
Non-emotional failure narrative (n=45)	Mean rank_{neg.} = 45.87 Mean rank_{non} = 57.39 U = 972.50; n.s. r = 0.201	Mean rank _{pos.} = 48.00 Mean rank _{non} = 43.96 U = 943.00; n.s. r = 0.078	Mean rank _{mixed} = 54.69 Mean rank _{non} = 53.04 U = 1352.00; n.s. r = 0.027

Notes: Values in bold are relevant to test hypothesis H, while remaining values have an explorative character.

Table 4 Results of the Mann-Whitney U-tests with Respect to Triggered Affective Reactions

Comparisons of affective reactions in response to the emotional failure narratives (pair-by-pair)			
	Negative emotional failure narrative (n=56)	Positive emotional failure narrative (n=52)	Ambivalent emotional failure narrative (n=65)
Positive emotional failure narrative (n=46)	Mean rank_{neg.} = 36.51 Mean rank_{pos.} = 69.75 U = 448.50; p < 0.001 r = 0.559		
Ambivalent emotional failure narrative (n=62)	Mean rank_{neg.} = 43.82 Mean rank_{mixed} = 73.66 U = 858.00; p < 0.001 r = 0.435	Mean rank _{pos.} = 60.29 Mean rank _{mixed} = 50.20 U = 1338.50; n.s. r = 0.053	
Non-emotional failure narrative (n=45)	Mean rank_{neg.} = 41.80 Mean rank_{non} = 62.44 U = 745.00; p < 0.001 r = 0.350	Mean rank _{pos.} = 52.91 Mean rank _{non} = 38.93 U = 717.00; p < 0.05 r = 0.264	Mean rank _{mixed} = 56.57 Mean rank _{non} = 50.46 U = 1235.50; n.s. r = 0.097

Notes: Values in bold are relevant to test hypothesis H2, while remaining values have an explorative character.

2.7.5 Results regarding the mediating effect of induced performance inferences (H4) and affective reactions (H5) on startup attractiveness

A comparison of the mean values for perceived startup attractiveness already indicated that potential co-founders perceived the failed founder's new startup attempt more attractive, when the failed founder made use of a positive ($M=4.75$; $SD=1.38$), an ambivalent ($M=4.97$; $SD=1.05$) or a non-emotional failure narrative ($M=4.50$; $SD=1.14$) compared to the negative emotional one ($M=3.77$; $SD=1.21$). Conducting a Kruskal-Wallis test on the variable 'startup attractiveness' confirmed that there were statistically significant differences in response to the respective failure narrative ($H(3)=28.25$, $p<0.001$) with a mean rank score of 70.78 for the negative emotional failure narrative, 117.96 for the positive emotional failure narrative, 126.89 for the ambivalent emotional failure narrative, and 104.22 for the non-emotional failure narrative. Thus, to compare the co-founders' perceptions of startup attractiveness in response to the various failure narratives pair-by-pair, we conducted again Mann-Whitney U-tests and applied Bonferroni corrections. The results are shown in Tables 5, indicating that a positive as well as an ambivalent emotional failure narrative improve the co-founders' perception of attractiveness of the failed founder's startup.

To test H4 and H5, which proposed that induced performance inferences and affective reactions, respectively, mediate the effects of a founder's respective failure narrative on a co-founder's perceptions of attractiveness regarding the founder's new startup, we utilized the PROCESS macro (Model 4) for SPSS (Hayes 2013; Preacher and Hayes 2004). First, we conducted each mediation analyses separately. The calculation of each indirect effect was based on bootstrapping with 10,000 samples. Since

Table 5 Results of the Mann-Whitney U-tests with Respect to the Co-founders' Perceptions of Startup Attractiveness

Comparisons of the co-founders' perceptions of attractiveness regarding the founder's new startup in response to the emotional failure narratives (pair-by-pair)			
	Negative emotional failure narrative (n=56)	Positive emotional failure narrative (n=46)	Ambivalent emotional failure narrative (n=62)
Positive emotional failure narrative (n=46)	Mean rank_{neg.} = 41.68 Mean rank_{pos.} = 63.46 U = 738.00; p < 0.001 r = 0.366		
Ambivalent emotional failure narrative (n=62)	Mean rank_{neg.} = 42.73 Mean rank_{mixed} = 74.65 U = 797.00; p < 0.001 r = 0.466	Mean rank _{pos.} = 52.50 Mean rank _{mixed} = 55.98 U = 1334.00; n.s. r = 0.055	
Non-emotional failure narrative (n=45)	Mean rank_{neg.} = 43.37 Mean rank_{non} = 60.50 U = 832.50; p < 0.05 r = 0.291	Mean rank _{pos.} = 48.97 Mean rank _{non} = 42.97 U = 898.50; n.s. r = 0.114	Mean rank _{mixed} = 59.26 Mean rank _{non} = 46.76 U = 1069.00; n.s. r = 0.096

Notes: Values in bold are relevant to test hypothesis H4 and H5.

the independent variable was comprised of the four failure narratives, the conditions were dummy-coded. In line with H1 and H2, the negative failure narrative served as the reference group.

The analysis for H4 showed that the potential co-founders' inferences regarding the failed founder's performance significantly and positively affects the startup attractiveness from a co-founder's perspective ($b=0.43$, $p<0.001$). The partially standardized indirect effect was significant for the use of a positive emotional failure narrative [95% CI: 0.07 to 0.58], the use of an ambivalent emotional failure narrative [95% CI: 0.04 to 0.50], but not for the non-emotional failure narrative [95% CI: -0.04 to 0.47]. Thus, H4 was partially confirmed. In this sub-model, 36.53% of the variance in perceived startup attractiveness could be explained by the predictors. As already indicated by the insignificant result for the non-emotional failure narrative, an additional separate mediation analysis with this non-emotional failure narrative as a reference group showed that the 95% confidence intervals for each of the three other failure narratives included zero. The results of this additional analysis and the fact that H4 was only partially confirmed already suggested that it may be advisable to exclude the non-emotional failure narrative from the complete model with two parallel mediators (see additional analysis).

To test H5, proposing affective reactions as a mediator, we applied the same procedure as for testing H4. For this separate mediation analysis, the negative emotional failure narrative also served as a reference group. The co-founders' affective reactions significantly influenced their perceptions of the attractiveness of the founder's new startup ($b=0.56$, $p<0.001$). Additionally, the partially standardized indirect path from the founder's emotional failure narrative via the co-founders' affective reactions to their perceptions of the attractiveness of the founder's new startup was significant for all comparative failure narratives: the positive emotional failure narrative [95% CI: 0.21 to 0.61], the ambivalent emotional failure narrative [95% CI: 0.14 to 0.46], and the non-emotional failure narrative [95% CI: 0.07 to 0.42]. Thus, affective reactions mediate the effect of a failed founder's positive, ambivalent, and non-emotional failure narratives on potential co-founders' perceptions of the attractiveness of the founder's new startup, confirming H5. In total, 23.74% of the variance in perceived startup attractiveness could be explained by the predictors of this sub-model.

Since the results of the mediation analysis depend on the reference group (Hayes 2013), we conducted an additional analysis with the non-emotional failure narrative serving as the reference point. This additional analysis serves as a robustness check and validates the indirect effect of the founder's emotional failure narrative on the co-founders' perceptions of the attractiveness of the founder's new startup regarding the use of a positive emotional failure narrative [95% CI: 0.03 to 0.31] or a negative emotional failure narrative [95% CI: -0.41 to -0.07]. However, the partially standardized indirect path from ambivalent emotional failure narratives to perceptions regarding startup attractiveness could not be confirmed [95% CI: -0.05 to 0.19]. However, the results suggest strong support for the indirect effect concerning negative and positive emotions in failure narratives on perceived startup attractiveness.

2.7.6 Additional analysis

Subsequently, we conducted a multiple mediation analysis, considering the complete model with both mediators (i.e., performance inferences and affective reactions). With the negative emotional failure narrative as the reference group, the results showed that the partially standardized indirect effect via performance inferences could be confirmed, for the positive emotional failure narrative [95% CI: 0.58 to 0.41], and the ambivalent emotional failure narrative [95% CI: 0.03 to 0.35], but not for the non-emotional one.

With respect to affective reactions, their mediating effect on startup attractiveness could be confirmed for the use of the positive emotional failure narrative [95% CI: 0.01 to 0.36], the ambivalent emotional failure narrative [95% CI: 0.01 to 0.27], and the non-emotional failure narrative [95% CI: 0.004 to 0.25].

Consequently, we again excluded the non-emotional failure narrative and conducted the multiple mediation analysis (with the negative emotional failure narrative as a reference group). Without this narrative type, both inferences regarding the failed founder's performance ($b=0.43$, $p<0.001$) and affective reactions ($b=0.35$, $p<0.01$) significantly and positively influenced the co-founders' perceptions of the attractiveness of the founder's new startup. The partially standardized indirect effect of performance inferences on startup attractiveness could be confirmed for the positive emotional failure narrative [95% CI: 0.06 to 0.45] and the ambivalent emotional failure narrative [95% CI: 0.04 to 0.38]. Similar to the results from the unrestricted multiple mediation analysis, the confidence intervals for affective reactions continued to exclude zero: affective reactions in response to positive emotional failure narrative [95% CI: 0.07 to 0.42] and ambivalent emotional failure narrative [95% CI: 0.05 to 0.35]. In this restricted multiple mediation model 46.58% of the variance in perceived startup attractiveness could be explained by the predictors. Finally, we conducted an analysis for the restricted multiple mediation model (with the negative emotional failure narrative as a reference group) to compare the coefficients and significances of the relative direct and total effects of performance inferences. Overall, the values confirm partial mediation effects for the restricted model, since the values for the total effects (positive emotional failure narrative: $b=0.98$, $p<0.001$; ambivalent emotional failure narrative: $b=1.20$, $p<0.001$) exceeded the values for the direct effects (positive emotional failure narrative: $b=0.34$, n.s.; ambivalent emotional failure narrative: $b=0.70$, $p<0.001$).

3 Discussion

This study's objective was to investigate how the expression of emotions resulting from business failure can influence the behaviors of other entrepreneurial actors. Drawing on EASI theory, we demonstrated that a failed founder can use emotional failure narratives to trigger both performance inferences and affective reactions in potential co-founders. Further, we showed that both processes subsequently influence (and partially mediate) potential co-founders' perceptions of attractiveness of the failed founder's new startup. Comparing each group's mean value of startup

attractiveness with the corresponding three mean values of the opportunity-related variables showed that the latter values exceeded startup attractiveness in each group. Since participants (i.e. potential co-founders) were explicitly instructed to consider both the opportunity-related aspects and the introduced failed founder when making their evaluations regarding startup attractiveness, it can be concluded that the devaluation in terms of startup attractiveness can be attributed to the failed founder. However, depending on the founder's used emotional failure narrative, this effect can be mitigated to some extent.

Concerning the specific failure narratives, the findings clearly indicate that failed founders should avoid using negative emotional failure narratives. Comparing the other emotional failure narratives with the negative one shows that the latter's use leads to significant disadvantages in terms of performance inferences and affective reactions concerning the founder. Thus, potential co-founders especially question the founder's personal legitimacy (Eberhart et al. 2017). Subsequently, these processes also lead potential co-founders to perceive the failed founder's startup remarkably less attractive. This finding is plausible, as it is in line with previous studies on the sharing of emotions in work environments, which suggest that individuals who are exposed to other's negative emotions try to turn away (either physically or psychologically) from this source of negative emotions (Cardon 2008; Gross 1998).

From the results for the opposite case, in which the failed founder used a positive emotional failure narrative, one can conclude that failed founders can significantly benefit from the use of positive language. A comparison with the negative failure narrative (as the reference scenario) reveals that a failed founder, when using instead a positive narrative, can considerably improve potential co-founders' performance inferences about his person. Moreover, this narrative type allows a failed founder to influence potential co-founders by triggering substantially more positive affective reactions in them, as indicated by the respective effect size ($r=0.55$). While Cardon (2008) suggests that individuals who catch more positive emotions in a work environment will evaluate the workplace more positively, it is surprising that the use of positive failure narratives did not lead to the highest evaluations from potential co-founders with respect to startup attractiveness ($M=4.75$), although they caught the most positive emotions and impressions from this narrative type ($r=0.55$). Contrary, the use of an ambivalent failure narrative allowed failed founders to achieve the best evaluations from potential co-founders with respect to perceived startup attractiveness ($M=4.97$), although the combined expression of positive and negative emotions created the suggested compensatory effect (Fredrickson 2001, 2003). Thus, as indicated by the effect sizes, this narrative type triggered slightly less positive inferences ($r=0.24$) and slightly less positive affective reactions ($r=0.43$) in the potential co-founders. Considering that co-founders' performance inferences and affective reactions only partially mediated the relationship between a failed founder's emotional failure narrative and co-founders' perceptions of startup attractiveness, startup attractiveness may be influenced by another inferential process beyond emotions (like economic criteria). A possible explanation for the higher values of startup attractiveness in response to ambivalent failure narratives could be that potential co-founders do not only draw conclusions from a failed founder's emotional narrative about his *previous* performance, they may also anticipate how he will perform in his new startup

attempt. The use of a positive emotional failure narrative may be interpreted as a sign of overconfidence (Cardon 2008), since this narrative type may also indicate that the failed founder did not carefully reflect on previous mistakes leading to his initial failure experience. Thus, potential co-founders may not only conclude from this narrative type that they cannot expect a performance improvement from the founder (Sy et al. 2005), since it is less likely that the failed founder has sufficiently learned from this failure experience (Rhaiem & Amara, 2021; Byrne and Shepherd 2015; Wolfe and Shepherd 2015b).

Similarly, the positive part of an ambivalent emotional failure may lead potential co-founders to conclude that the failed founder judged his previous performance as good, while the negative part signalizes that he will put even more effort in his new startup attempt (Cardon 2008). Consequently, potential co-founders may also conclude from an ambivalent emotional failure narrative that the failed founder has precisely analyzed and learned from his failure experience (Klimas et al. 2021). Thus, the potential co-founders can expect a performance improvement from the failed founder, which leads to their highest evaluations in terms of startup attractiveness.

Moreover, we found no significant influence of the non-emotional narrative on inferential processes regarding the founder's performance and subsequently no mediation effect on startup attractiveness. However, this can be explained with EASI theory that argues that emotions contain additional information for the receiver (van Kleef et al. 2009). In the case of the absence of emotions in failure narratives, it is more likely that potential co-founders draw on other, for instance, economic criteria to make inferences about the failed founder, bringing the failure into the fore, instead of emotions.

3.1 Theoretical implications

Our research provides three meaningful contributions to extant literature. First, this study extends the wider body of literature on entrepreneurial emotions, as follows: While previous quantitative studies focused on how *distinct* emotions, such as anger or happiness, influence a founder's *own* decisions (Grichnik et al. 2010; Welpé et al. 2012), this study provides new insights how expressions about *complex* emotional states can influence *others'* (i.e. potential co-founders') decisions. In doing so, we respond to Van Kleef et al.'s (2012) call to use apply EASI theory in new organizational contexts and additionally to Doern and Goss's (2014) who recently stressed to investigate the interpersonal function of emotions in entrepreneurship research. By explaining how emotions can shape other's behavior, we contribute by explaining the interpersonal effect of complex emotions in the entrepreneurship context (Van Kleef et al. 2009; Visser et al. 2013; Wang et al. 2017). This study demonstrated that the EASI framework provides a valuable supplement to theoretical frameworks, such as impression management (Leary and Kowalski, 1990) or signaling theory (Connelly et al. 2010), which have been used more frequently to investigate how entrepreneurs can exert interpersonal influence to achieve venture legitimacy (Überbacher 2014).

Second, this study particularly contributes to the emerging field of entrepreneurial failure (Czakov et al. 2022; Klimas et al. 2021) and especially failure narratives (Kibler et al. 2021; Byrne and Shepherd 2015; Liu et al. 2016; Mantere et al. 2013),

as our study builds on Byrne and Shepherd's (2015) research and extends their qualitative findings on emotional failure narratives. While Byrne and Shepherd emphasized that the use of emotional failure narratives helps founder themselves to cope with failure, we provide one of the first explanatory studies showing that emotional failure narratives can also be a valuable tool to exert interpersonal influence. For this purpose, we condensed and operationalized their found patterns on failure narratives with high emotional intensity, combined them to further design the ambivalent emotional failure narrative, and applied them as treatments in an experimental research design. In doing so, we continued their work with a methodological approach, which is still rare in entrepreneurship research (Hsu et al., 2016) and is, to our best knowledge, the first in the emerging field of emotional failure narratives.

Concerning negative emotional narratives, this study investigated the collective social function of sadness, worry, guilt, and regret. While entrepreneurship literature recently begun to explore how failed founders handle these negative feelings for recovery or learning from failure (Deichmann et al. 2014; Jenkins et al. 2014; Patzelt and Shepherd 2011; Shepherd 2003, 2009), providing first empirical results regarding their *intrapersonal* effects on a failed founder, their *interpersonal* effects have to date received very little attention in general emotion research (Van Kleef et al. 2012). The findings on the use of a negative emotional failure narrative indicate that this type of narrative is not a suitable communicative tool to attract potential co-founders to pursue an opportunity (Bachmann et al. 2021; Khanin et al. 2022).

Besides this, we have investigated the interpersonal effects of positive emotional failure narratives. While the intrapersonal effect of positive emotions is generally well understood, they have only be little investigated in the context of entrepreneurial failure (Byrne and Shepherd 2015), since positive emotions are only rarely associated with failure experiences. We showed that failed founder can successfully use this type of narrative to induce positive affective reactions and favorable performance inferences in potential co-founders, which in turn significantly improves a new startup's perceived attractiveness in this key stakeholder group. Thus, a positive emotional failure narrative should be considered as a valuable communicative tool to reduce diminished personal reputation, status loss or stigmatization, and therefore should facilitate reentry after failure (Klimas et al. 2021; Cardon et al. 2012; Eberhart et al. 2017; Rider et al. 2015; Simmons et al. 2014; Singh et al. 2015).

Third, we followed Byrne and Shepherds suggestions and created the additional case of ambivalent emotional expressions, which has been largely neglected in both entrepreneurship research and general management (Methot et al. 2017; Rothman et al. 2017; Rothman and Melwani 2017). In doing so, we were able to explore and validate the function of this narrative type. Our findings support Fredrickson's (Fredrickson 2001; Tugade and Fredrickson 2002, 2004) suggestions that the combined expression of positive and negative emotions creates a compensatory effect. However, contrary to our assumption this compensatory effect did not lead to moderate evaluations with respect to startup attractiveness. In fact, we could demonstrate that the use of an ambivalent emotional narrative leads co-founders to evaluate a failed founder's new startup attempt as most attractive compared other narrative types. These findings suggest that potential co-founders draw conclusions not only from the narrative about a failed founder's *previous* performance, as appraisal theory proposes

(Frijda 1986; Lazarus 1991; Manstead and Fischer 2001); they also indicate that co-founders may also make inferences about a failed founder's *present* performance in his subsequent startup. As such, recent studies propose that failed entrepreneurs learn and benefit from failure the most when they have experienced both negative and positive feelings (Byrne and Shepherd 2015; Deichmann et al. 2014; (Wolfe and Shepherd 2015b)). However, inferences about a failed founder's future performance needs further explanation, and particularly ambivalent emotions should be the subject of further research into entrepreneurial failure.

3.2 Practical implications

Besides providing several theoretical implications, this study also contributes to entrepreneurial practice and policy. While previous studies suggested that founders are fairly reluctant to disclose their previous business failure experience to avoid possible reputational and status loss or even stigmatization (Eberhart et al. 2017; Rider et al. 2015; Sarasvathy et al. 2013; Zacharakis et al. 1999), the findings of this study suggest that these concerns are only partially true. In fact, comparisons across all scenarios showed that the entrepreneurial opportunity itself, its underlying business model, and its perceived profitability received better evaluations from potential co-founders than the related startup in terms of its attractiveness when considering narratives. This demonstrates that a founder's open and emotional dialogue about his previous failure experience indeed negatively affects perceived startup attractiveness in co-founders. However, the results also demonstrate that this effect clearly depends on which emotional failure narrative is used. The use of a negative emotional failure narrative clearly triggers less positive affective reaction and less favorable conclusions regarding a founder's previous performance, which in turn leads to a substantial devaluation of the startup's attractiveness. However, with respect to all other type of narratives, we also showed that failed founders do not jeopardize their chance of attracting potential co-founders when talking openly and emotionally about their experiences, as indicated by overall sufficiently high mean values of startup attractiveness. This is a promising signal for failed founders from the German startup scene, as it indicates that potential co-founders, irrespective whether they are opportunity or necessity driven, do not generally regard entrepreneurial failure as a stigma. Moreover, while an ex-post announcement about previously failed entrepreneurial attempts should generally be not an option, the comparison between the opportunity-related mean values and startup attractiveness indicates that concealing failure is not worth risking a trusting relationship with potential co-founders. However, failed founders must be aware that they are likely to have a disadvantage in attracting co-founders compared to successful serial founders or nascent founders who pursue the same opportunity.

Second, failed founders who tend to exclusively talk about the upsides of their failed startup attempt and associated positive emotions may consider sharing some negative experiences as well. The findings suggest that it is likely that ambivalent emotional expressions are interpreted by co-founders as a very nuanced way of thinking about the failure experience. And thus, the prospect co-founders may conclude from the ambivalent emotional narratives, that the failed founder is now a more pro-

found decision-maker and business partner (Methot et al. 2017; Rothman and Melwani 2017), who can leverage his failure experience for the good of his subsequent venture. Specifically, the findings suggest that failed founders can use a mix of negative emotions like regret and guilt, while also using positive emotions like happiness and confidence, as it may signal that the failed founder learned from past mistakes, taking responsibility for the failed business. Consequently, the joint use of these emotions may signal that the failed founder reflected the situation and reasons for failing but is confident to do better in the future.

3.3 Limitations and future research

While this study advances research on entrepreneurial failure and entrepreneurial emotions, there are some limitations that future research on this topic should address. First, besides the narrative with ambivalent emotions, we used emotional narratives that we operationalized in terms of their positive or negative valence, which is in line with extant literature on the intrapersonal effects of emotions on evaluations (e.g. DeSteno et al. 2000; Tiedens and Linton 2001). Although we regard failed entrepreneurs experiencing a variety of emotions as more realistic, we ‘bundled’ several positive or negative feelings within one narrative, which might have led to oversimplified conclusions. Consequently, replicating our study with failure narratives containing either only one specific positive emotion (e.g., pride, enthusiasm) or only one specific negative emotion (e.g. sadness, grief) might lead to more nuanced conclusions. Such an approach would also allow to investigate the interpersonal effects of emotions resulting from failure with different levels of emotional intensity.

Second, we used text-based failure narratives for the experimental research design, which is a common and appropriate approach to experiments. Although different modalities of emotional expressions, such as verbally, facially, gestural or in our research design text-based expressions, are considered to produce similar inferential effects and affective reactions among receivers (Pietroni et al. 2008; Van Kleef 2017), it would be even more realistic to embed video-taped forms in order to combine expressions of verbally communicated and facially displayed emotions. Recently, entrepreneurship scholars started using videos showing entrepreneurs or professional actors pitching a venture idea, followed by the evaluation of the opportunity (Davis et al. 2017; Huang and Pearce 2015; Parhankangas and Renko 2017). Investigations into failure narratives could benefit from this approach, since the effect of non-verbal communications, such as facial expressions and body language, combined with verbal explanations could lead to a more realistic and holistic picture.

Third, the evaluations of the participating individuals in this experiment only represent their opinion of the startup’s attractiveness based on its business model and its founder’s previous experiences. These perceptions do not represent actual ‘behavior’ to become a co-founder in the presented startup, which should therefore be investigated in future studies using real-life settings.

Finally, our sample induces some limitations. We conducted this study in the German start-up context, which limits the generalizability to other countries, as cultural aspects might influence how potential co-founders evaluate failed founders based on failure narratives. For instance, in Eastern countries the same emotions might lead

to different inferences about the failed founder's performance. Therefore, we suggest that future research replicate this study in other Western and Eastern cultures.

Supplementary Information The online version contains supplementary material available at <https://doi.org/10.1007/s11846-023-00674-5>.

Funding Open Access funding enabled and organized by Projekt DEAL.

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