



# The role of passion diversity, compassion, and self-compassion for team entrepreneurial passion

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**Abstract** Passion among entrepreneurial teams can contribute to team performance; yet we still have little understanding of the determinants of team passion. Drawing from the literature on social emotions, we theorize and empirically examine the influence of compassion and self-compassion of team members on the shared team entrepreneurial passion (TEP). Using an original sample of 326 individuals from 107 venture teams, we provide novel evidence that, in addition to team passion diversity, compassion and self-compassion significantly relate to

TEP. Specifically, we demonstrate that compassion and self-compassion contribute to polyfocal TEP, which is more beneficial for team outcomes than monofocal TEP.

**Plain English Summary** Does being compassionate to the self and others contribute to the emergence of shared entrepreneurial passion in venture teams? Team entrepreneurial passion plays an important role in business ventures as it can positively impact team-level outcomes and venture performance. Our research on venture teams of small- and medium-sized enterprises (SMEs) shows that the development of a shared passion in teams is supported by high levels of compassion and self-compassion among team members. We also demonstrate that having multiple roles or activities that a team is passionate about is more beneficial for team outcomes than a single passion focus. Our study offers important practical insights for entrepreneurs and management teams as it highlights the importance of social emotional aspects in teams as well as the advantage of selecting venture team members with diverse individual passions.

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## 1 Introduction

Passion, which involves intense positive feelings toward an activity that is central to one's identity, has

been identified as a key feature of successful entrepreneurs (Cardon et al., 2009; Drnovsek et al., 2016; Newman et al., 2021). Scholars have proposed that having strong passion enables entrepreneurs to continue pursuing their goals and efforts despite the extreme uncertainties, resource shortages, and rapid changes that commonly characterize the environment they work in (Baum & Locke, 2004; Cardon & Kirk, 2015; Cardon et al., 2013). Studies have shown how entrepreneurial passion improves the performance of individual entrepreneurs and their firms through enhanced self-efficacy, goal clarity, persistence, and goal-setting strategies (Cardon & Kirk, 2015; Cardon et al., 2013).

While these studies expand our understanding of the role of passion for individual entrepreneurs, we still know little about how passion enhances the functioning of a team of entrepreneurs. As most businesses are established and led by teams (Klotz et al., 2014), there is a need to shift our focus to advancing the understanding of entrepreneurial passion at the collective level. Cardon et al. (2017b) introduced the concept of team entrepreneurial passion (TEP) as a shared intense positive emotion that is directed toward a role or activity that is central to the team's collective identity. Similar to the implications of entrepreneurial passion at the individual level, they proposed that having a strong shared passion will lead teams to be more focused and motivated in engaging key activities, and to be more persistent in reaching collective goals. With the potential implication of TEP for team outcomes, there is an increased interest in studying the effects of TEP on team performance (Santos & Cardon, 2019; Su et al., 2022) at different venture stages (Boone et al., 2020). While these studies have improved our understanding of the implications of TEP, there is a dearth of research that expands current theorizing on the factors influencing TEP (Newman et al., 2021). Such a focus on outcomes limits our understanding of how the formation of TEP can be supported in entrepreneurial teams, which in turn prevents teams from experiencing the expected positive implications of TEP. The few studies that have examined the antecedents of TEP focused on the role of team helping behaviour (Zhu et al., 2022) and perceived person-team fit (Taggar et al., 2019) in the emergence of TEP. Building on this work on behavioural and cognitive influences on TEP, because teams are social entities, we advance existing

knowledge by examining the social emotional aspects of teams and how these social emotional aspects influence TEP. Within-team relationships and other-oriented social emotions can have important implications for the development of a shared passion, particularly in teams with extreme dissimilarities and potentially high conflict (Cardon et al., 2017b; Zhu et al., 2022). It is this underappreciated social aspect of emotions that motivates us to examine the social emotional foundations of TEP.

In this study, we draw on the literature on social emotions (Fischer & Manstead, 2018; Hareli & Parkinson, 2008) to extend the TEP model by hypothesizing that compassion toward others (Nussbaum, 1996) and the self (Neff, 2003a) are crucial aspects associated with the existence of TEP. Compassion is an enduring, social emotion that is evoked by the pain and distress experienced by oneself or others (Valdesolo & DeSteno, 2011). Like passion, compassion is both affective and behavioral—it is a positive emotion that motivates individuals to action (Miller et al., 2012). Yet unlike passion (towards an activity), compassion is always oriented toward a person (I and/or others) and linked to prosocial and caring behavior (Goetz et al., 2010; Sprecher & Fehr, 2005). Prior studies have highlighted how entrepreneurs' compassion serves as an important driver of prosocial behaviour and social venturing (Farny et al., 2019; Stirzaker et al., 2021; Williams & Shepherd, 2016; Yitshaki et al., 2022). Compassion also helps entrepreneurs to cope and to continue undertaking entrepreneurial action in the face of obstacles and failure (Engel et al., 2019; Shepherd & Cardon, 2009). Similarly, at the team-level, scholars have highlighted the importance of compassion for team functioning and performance when faced with struggles and conflicts, both of which are inevitable in teams and organizational life (Rynes et al., 2012). A team with members high in compassion toward others tend to be more open to different perspectives and ideas (De Dreu et al., 2000; Polman & Emich, 2011). Meanwhile, having high self-compassion should allow individuals to identify their passion more clearly (Neff et al., 2007) and to be more open toward action and change (Breines & Chen, 2012; Neff & Pommier, 2013). We therefore argue that compassion toward self and others can both be key to support the expression and sharing of individual passions with other team members (Cardon et al., 2017b), thus contributing to TEP.

We examine the role of compassion toward others and compassion toward the self in explaining TEP based on an original sample of 326 individuals from 107 teams of Finnish SMEs. Our key insight is to demonstrate that

teams with members that are high in compassion and high in self-compassion more likely have polyfocal TEP as opposed to monofocal TEP. We further examine the relationship between team passion diversity and TEP by showing that passion focus variety among team members is positively associated with the existence of a polyfocal TEP. Additional analyses also demonstrate the positive influence of TEP on relevant team-level outcomes (i.e., team potency, progress, and team identification) and that the effects of passion diversity, compassion, and self-compassion on team outcomes are fully mediated by TEP.

Building on these insights, our key contribution to the entrepreneurship literature is to extend current theorizing on team entrepreneurial passion (Cardon et al., 2017b) by introducing the role of compassion toward the self and others as factors that facilitate TEP. This allows us to provide first insights into how social emotions contribute to shared emotions and collective identity within teams. Furthermore, we offer a novel empirical demonstration of the core assumptions outlined in the theoretical model of TEP (Cardon et al., 2017b), in particular with regards to bridging the relationship between team passion diversity and TEP (de Mol et al., 2020) and the implications of TEP on relevant team outcomes (Boone et al., 2020; Santos & Cardon, 2019). Also, while existing empirical studies of TEP have mainly focused on new venture teams (Boone et al., 2020; de Mol et al., 2020; Santos & Cardon, 2019; Su et al., 2022), our study expands this knowledge by demonstrating the role of TEP for achieving positive team-level outcomes in the context of established small- and medium-sized firms. Collectively, our study's findings contribute to advancing the theoretical foundations and empirical evidence concerning team entrepreneurial passion.

## 2 Theoretical background and hypotheses

### 2.1 Team members' passion diversity and TEP

Cardon et al. (2017b) developed the construct of team entrepreneurial passion (TEP) which is defined as the shared, intense positive feelings that are directed toward roles or activities that are central to a venture team's identity and performance. Specifically, their TEP model suggests that entrepreneurial passion shared within teams is influenced by the composition of individual team members' passions, and the

diversity of those passions. As a referent-shift construct (Chan, 1998), TEP involves shared passion at the team level of analysis, which is distinct from the members' passion on the individual level (Cardon et al., 2017b). As such, it is possible (and perhaps even likely) for individual members to be passionate about a role or activity that differs from the team's shared passion. According to the TEP model, each member will bring into the team their own individual entrepreneurial passion, which could vary in focus (i.e., inventing, founding, developing) and intensity. Teams that are passionate about only one distinct type of activity are considered monofocal, while polyfocal teams share positive, intense feelings toward multiple activities and consider them all central to their team passion (Cardon et al., 2017b). Monofocal and polyfocal TEP are shown to influence team functioning differently – while monofocal TEP for inventing is more beneficial for team performance at the venture's conception stage, teams benefit more from polyfocal TEP during their commercialization stage (Boone et al., 2020). Scholars have also started to differentiate between teams that are passionate for all roles (complete polyfocal TEP) and teams that are passionate for several but not all roles (incomplete polyfocal TEP), finding that variations of incomplete polyfocal TEP could be detrimental or beneficial for team performance depending on the stage of the venture (Boone et al., 2020; Santos & Cardon, 2019).

However, as almost all TEP studies have focused on new venture teams (NVTs), the role of TEP in venture teams of established firms has thus far remained unexplored (Newman et al., 2021). Compared to established firms, NVTs are faced with higher risks and propensity to fail, liabilities of newness, and the need to focus on survival at the early stage of the venture (Eisenhardt & Schoonhoven, 1990; Ensley et al., 2003). NVTs also typically go through distinct stages of the venture development process (Fisher et al., 2015; Vohora et al., 2004) with changing task requirements and team dynamics (Patzelt et al., 2020), while established firms operate in a more stable environment (Klotz et al., 2014; Sirén et al., 2017). Scholars have hinted towards the role of CEO's individual entrepreneurial passion in established SMEs (Adomako & Ahsan, 2022; Strese et al., 2018), but not examined passion at the team-level of analysis. Venture teams in established firms are typically involved in diverse and multi-faceted work,

including founding (e.g., gathering resources for pursuing new opportunities), inventing (e.g., identifying and developing new products or services to bring to the market), and developing (e.g., financial growth and market development) activities (Certo et al., 2006; Chen et al., 2010; Smith & Tushman, 2005). While the work undertaken by NVTs could also be diverse and multi-faceted as in established firms, the work of NVTs typically depends on the venture development stage (Fisher et al., 2015; Patzelt et al., 2020; Vohora et al., 2004). Hence, we suggest that teams of established firms with a heterogeneous focus of their shared team passion are likely to perform better since they can utilize the diversity among interests of team members to undertake the work (Eisenhardt, 2013).

In line with Cardon et al. (2017b)'s predictions for NVTs, as well as Boone et al. (2020)'s findings for NVTs in the commercialization stage, we expect polyfocal TEP to be more beneficial to venture teams in established firms. Specifically, we expect complete polyfocal TEP to be more beneficial than incomplete polyfocal TEP as the team would be passionate towards a wider range of key activities that are relevant to work in established firms. Interestingly, there has been very little empirical work that directly examines the relationship between the passion diversity of individuals within teams and the form of TEP the team has as a whole. It is quite possible for individuals within a team to have high diversity in the foci of their individual passions, which absent the existence of shared TEP can be detrimental to performance (de Mol et al., 2020). Yet when a team has a shared TEP that incorporates multiple foci (as a polyfocal TEP would), the impact of that TEP on performance should be positive.

Through interpersonal processes within the team, the focus of individual members' passions will either converge or diverge, depending on how diverse and strong the individual passions are (Uy et al., 2021). In teams with members that have low to moderate diversity in terms of focus, individual entrepreneurial passions will converge into monofocal TEP. Individuals in such teams will tend to engage more with team members that have similar passions (Barsade & Gibson, 1998). Affective transfer processes will further help the development of a group affect as team members influence each other and synchronize (Kelly & Barsade, 2001). However, high levels of passion intensity separation can make these interpersonal

processes occur more slowly, as more time and energy would be required for a similar level of passion intensity to be shared between members (Cardon et al., 2017b). Further, in teams where the members' focus variety is highly dissimilar, the TEP would likely become polyfocal. Instead of converging, the high dissimilarity in individual entrepreneurial passions will make it more likely for team members to perceive complementarity (Smith & Tushman, 2005). By developing a TEP that is inclusive, team members would be able to maintain their individual passion focus while confirming others' since multiple foci of passion would be included in a polyfocal TEP. Differences are more valued and the various passion foci could co-exist in the team through polyfocal TEP. However, for teams to have a polyfocal TEP, the passion intensity levels in the team need to be similar (Cardon et al., 2017b). The complementarity process will be more challenging when both passion focus variety and intensity separation are high as the extreme dissimilarity could lead members to become less willing to re-evaluate and adjust their identity (Leonardelli et al., 2010) in the formation of a shared team identity. Emotional ambivalence that emerges due to the presence of both negative and positive emotion towards different passion foci and different intensities of those emotions could further increase the potential for team conflict and reduced team cohesion (Rothman & Wiesenfeld, 2007), thus hindering the processes underlying the emergence of TEP. Based on the current understanding in the literature, we therefore predict:

**Hypothesis 1.** *Higher focus variety and, simultaneously, lower intensity separation are positively associated with polyfocal versus monofocal TEP.*

## 2.2 Social emotions within teams and TEP

Although we expect that the team's passion diversity will impact the type of shared entrepreneurial passion within teams (TEP), we argue that the relational aspect of the team also plays a key role for TEP formation. Cardon et al. (2017b) suggested that TEP will only be able to develop in teams where individual emotions and identity can be openly expressed and shared with other team members. In contrast, high levels of conflict or turnover in a team will hinder

the process of passion convergence or complementarity processes. Drawing from the literature on social emotions (Hareli & Parkinson, 2008), we argue that a shared entrepreneurial passion within teams requires a positive emotional environment that is open and inclusive. Social emotions are relational emotions (Leary, 2000, 2004) that are based on the thoughts, feelings, or actions of others (Hareli & Parkinson, 2008). These other-oriented emotions emerge through social interactions and are highly dependent on the individual's relationship with other people (Parkinson, 1996). Social emotions could have an affiliation function in which the emotional experience creates cooperative relations between individuals (Fischer & Manstead, 2018). In teams, positive social emotions are thus important to maintain a positive relationship between team members and support team functioning. The most effective teams in entrepreneurial firms are those that can experience intense conflict when making critical strategic choices, yet still maintain cordial relationships (Eisenhardt, 2013). Positive social emotions also contribute to the formation of group affect as the enhanced relationship between members improves interpersonal processes (Hatfield et al., 1992; Parkinson & Simons, 2012), which is key for TEP in teams. Since TEP can be hindered by constrained interpersonal relations such as extreme conflict (Cardon et al., 2017b), we therefore posit that the existence of strong, positive social emotions within a team will be associated with higher TEP. We discuss this further in terms of the two social emotions of compassion and self-compassion.

### 2.2.1 Compassion and TEP

Inspired by Barsade and O'Neill (2014), we suggest that compassion in teams is associated with higher TEP. Compassion is "an attitude toward other(s), either close others or strangers or all of humanity; containing feelings, cognitions, and behaviors that are focused on caring, concern, tenderness, and an orientation toward supporting, helping, and understanding the other(s), particularly when the other(s) is (are) perceived to be suffering or in need" (Sprecher & Fehr, 2005, p. 630). Compared to feelings of empathy and sympathy (Sprecher & Fehr, 2005), compassion is more encompassing and enduring. Compassion is also a "prosocial motivating emotion" (Miller et al.,

2012, p. 617)—an emotion that motivates individuals to undertake action that benefits others. For example, compassion towards others is a key driver for prosocial behaviour, which in turn motivates social venturing (Farny et al., 2019; Stirzaker et al., 2021; Williams & Shepherd, 2016; Yitshaki et al., 2022). Within a team, compassion creates emotional ties that strengthen commitment and encourage the members to alleviate suffering in the team (Goss, 2008; Thomas et al., 2009), because the behavioral predisposition of this social emotion motivates individuals to enact altruistic and caring behavior (Goetz et al., 2010). Meanwhile, compassion also produces a positive and shared identity with the struggling members (Thomas et al., 2009). Like passion, compassion thus has an emotional, identity, and behavioral aspect that together motivate the individual to continue pursuing a specific goal. In terms of team functioning, scholars have found that compassion enhances individuals' perspective taking, which allows them to understand and appreciate the views and situations that are different from their own (De Dreu et al., 2000; Nussbaum, 1996). This type of perspective taking helps individuals to be more flexible in viewing problems and allows them to recombine new ideas, approaches, or solutions into more holistic solutions (Beersma & Dreu, 1999; Polman & Emich, 2011). Compassion also encourages individuals to cooperate and prioritize collective interests over their own (De Dreu & Nauta, 2009; Goetz et al., 2010; Miller et al., 2012).

With this in mind, we suggest that compassion toward others will more likely be associated with a polyfocal TEP. In a team with high passion diversity, individuals with a minority passion focus might be reluctant to share their emotions and identity in the team due to perceived incongruence with the majority focus. However, a compassionate team would encourage sharing of that passion, since team members would be more open and inclusive as they make others' suffering (or feeling different in their passion focus) personally relevant to them (Batson & Shaw, 1991). Compassion also facilitates action of removing sources of suffering that are considered unfair (Post, 2002) while enhancing commitment to solving the problem (Batson & Shaw, 1991). This would lead to team members wanting to share with one another their individual passions, and to appreciate the individual passions of other team members even when they are

different than one's own. Ultimately, this should be associated with the formation of a collective TEP that accommodates multiple passion perspectives and foci. Especially in established firms where the venture team tends to be involved in multi-faceted work that encompasses all three passion foci (Certo et al., 2006; Chen et al., 2010; Eisenhardt, 2013; Smith & Tushman, 2005), compassionate teams would more readily accommodate perspectives that are not in line with their own passion focus for the collective interest of the team. Therefore, we suggest:

**Hypothesis 2.** *Team-level compassion is positively associated with the likelihood of polyfocal versus monofocal TEP.*

### 2.2.2 Self-compassion and TEP

Compassion toward self is also important for team dynamics. Self-compassion involves “being touched by and open to one's own suffering, not avoiding or disconnecting from it, generating the desire to alleviate one's suffering and to heal oneself with kindness” (Neff, 2003a, p. 87). Pain and suffering are inevitable aspects of work and organizational life, which, if not properly managed, can have negative implications for performance and productivity. Self-compassion allows individuals to transform negative feelings into a more positive state by having a clearer understanding of one's situation and motivating oneself to make appropriate and effective change (Folkman & Moskowitz, 2000; Isen, 2000). Through self-compassion, individuals can manage the setbacks they experience in work and mitigate the effects of the negative feelings that emerge. This makes self-compassion especially important in the context of entrepreneurship, as the process of starting and running a venture is filled with high risks and challenges. Through self-compassion, entrepreneurs are able to cope with potential and actual experiences of failure, learn from the failure experience, and continue engaging in their work (Engel et al., 2019; Shepherd & Cardon, 2009). Self-compassion is therefore linked to self-improvement motivation, which is the motivation to improve oneself and one's performance (Breines & Chen, 2012).

While self-compassion is an emotion that is oriented toward the self, studies have shown that self-compassion is also key for relationships with others (Dodson & Heng, 2021; Yarnell & Neff, 2012). Self-compassion has been previously argued to greatly improve social connectedness and the ability to build interpersonal relationships (Neff et al., 2007; Neff, 2003a). For instance, the study by Yarnell and Neff (2012) found that when the needs of self and others are in conflict, self-compassionate individuals are more likely to compromise than to subordinate their own needs while still maintaining a sense of authenticity and high levels of emotional and relational well-being. Further, self-compassionate individuals tend to provide more social support and to encourage interpersonal trust in their relationships with others (Crocker & Canevello, 2008). Self-compassionate individuals are therefore more able to resolve interpersonal conflicts, including team conflicts, in a healthy and productive manner.

Like compassion toward others, self-compassion also enhances perspective taking (Neff & Pommier, 2013), which we previously argued is important for polyfocal TEP within teams. Another key characteristic of self-compassion is its link to self-appraisals (Leary et al., 2007); we argue that self-compassionate individuals will be able to recognize their individual passion more accurately. Having a clearer understanding and acceptance of the level and focus of one's own passion will enable individuals to share their passion with other team members more openly. Even in contexts where there might be incongruence between one's individual passion and the dominant passion focus in the team, self-compassionate individuals will experience less personal distress (Neff & Pommier, 2013), maintain a positive sense of self (Gerber et al., 2015), and continue to be connected with others (Neff, 2003a). They will also likely be more willing to share that passion with other members of the team and to find a compromise that would be beneficial for both the self and the team (Yarnell & Neff, 2012). We therefore argue that teams consisting of members with high self-compassion would benefit from the improved relationships each member has with themselves and with each other (Neff, 2003b), supporting the formation of polyfocal TEP. As such, we predict:

**Hypothesis 3.** *Team-level self-compassion is positively associated with the likelihood of polyfocal versus monofocal TEP.*

### 3 Methodology

#### 3.1 Data

Our analysis utilizes original survey data on venture teams of small and medium-sized enterprises (SMEs) in the Finnish manufacturing sector. The survey was conducted in cooperation with a professional research agency using a survey instrument designed by the authors. Candidate firms for the study were identified using Bureau van Dijk's Orbis database. We followed the European Union criteria for SMEs, that is, firms with 10 to 249 employees and either a turnover of between EUR 2 million and EUR 50 million or total assets of between EUR 2 million and EUR 43 million. We focused on manufacturing firms that were classified in the NACE group C. The database contained 1,620 firms meeting these criteria.

The survey agency contacted suitable firms by telephone and asked to speak to a member of the firm's venture team. The interviewer explained the purpose of the study to the potential respondent and asked them to participate in the study. If the person agreed, they were immediately sent an email link to a web-based questionnaire. They were also asked to identify further members of the firm's venture team, which were subsequently contacted by the research agency. Altogether 568 individuals agreed to participate and 390 individuals from 150 firms actually submitted responses (response rate: 68% of those who agreed). For defining the analytic sample, we excluded cases where only one manager had participated or where the CEO was not one of the respondents. We focused on cases where we had two or more responses, including one from the CEO, and no excessive numbers of missing values that could not have been reliably imputed. Our final sample includes 326 individuals from 107 firms, and the team size ranges between 2–5 individuals per firm. While we do not have full information on the exact venture team size of the firms in our study, the average size of management teams in Nordic SMEs is between 3–4 individuals (Brunninge et al., 2007; Glunk et al., 2001; Sorama et al., 2018). We,

therefore, conclude that the team size of the firms in our study reflects the Finnish context.

#### 3.2 Measures

##### 3.2.1 Team passion diversity: intensity separation and focus variety

We followed de Mol et al. (2020) for computing the focus variety and intensity separation of each team utilizing Cardon et al.'s (2013) *individual entrepreneurial passion* scale. The 13-item scale comprises items addressing positive feelings concerning three foci of passion (inventing, developing, founding), as well as the centrality of the respective focus of passion to the individual's self-identity. Given that our sample comprises mostly established companies, we modified the items pertaining to the *founding* focus of passion, originally developed for the context of independent venture creation, to make them suitable to the corporate entrepreneurial context. The scale contains four items addressing positive feelings for inventing (sample item: "Searching for new ideas for products/services to offer is enjoyable to me"), three items for founding (sample item: "Creating new business opportunities for our company excites me"), and three for developing (sample item: "Pushing myself to make the company better motivates me"). The identity centrality of each focus of passion is captured with one item (sample item: "Inventing new solutions to problems is an important part of who I am").

We conducted a series of confirmatory factor analyses to ascertain the discriminant validity of the three foci of individual entrepreneurial passion. We compared a model specification in which all items load on their intended factors with specifications where all variables load on a single factor, or the items belonging to any two factors load on a single factor whereas the remaining items load on their intended factor. The model where all items load on their intended factors resulted in superior fit with the data (comparative fit index CFI=0.979; root mean squared error of approximation RMSEA=0.057; standardized root mean squared residual SRMR=0.033). Subsequently, we averaged the scores of the items capturing the positive feelings toward each of the three entrepreneurial roles, and then multiplied the resulting index scores with the respective identity centrality scores

(Cardon et al., 2013). We then calculated intensity separation and focus variety based on these individual passion scores for members of each team.

*Intensity separation* refers to within-team variation in the levels of individual entrepreneurial passion. Following de Mol et al. (2020), we operationalized intensity separation by calculating the within-team standard deviation of the team members' entrepreneurial passion scores (averaged across all three domains) using Biemann and Kearney's (2010) unbiased standard deviation estimator ( $SD_N$ ).

*Focus variety* refers to how different team members are with regard to the specific entrepreneurial roles for which they feel passion. Again, we followed the approach in de Mol et al. (2020) and operationalized focus variety by using Blau's index (1977), which draws on the theory of qualitative differences and can be interpreted as the probability that two randomly paired members of a population belong to different subgroups. The first step in computing the index was a cluster analysis to uncover what patterns of individual team members' passion foci (inventing, founding, developing) exist in our data. Using cluster analysis allows the detection of different hybrid identities between passion for the three entrepreneurial roles, rather than assuming that each team member would have one dominant passion focus (de Mol et al., 2020). We explored a number of different cluster solutions and concluded that a six-cluster solution made most conceptual sense. It provided the maximum variation without resulting in clusters that are very similar to each other (Table 1). Next, we used the cluster solution to create a categorical variable where each respondent was assigned to a cluster. This, in turn, provided an input for computing the Blau index using the Stata routine *divcat*. The resulting index of *focus variety* receives low values when the passion configurations for all team members are similar and they fall into the same cluster. Conversely, the index shows high values when the team members have different passion configurations and therefore fall into different clusters.

### 3.2.2 Team entrepreneurial passion (TEP)

We followed Santos and Cardon (2019) by measuring TEP with an adaptation of the Cardon et al. (2013) individual entrepreneurial passion scale to the team level using the referent-shift approach. The items were similar to the individual entrepreneurial passion items above, including items capturing the intense positive feelings toward and identity centrality of the three domains of passion. However, the TEP items refer to what the team as a whole, rather than its individual members, is passionate about (sample item: "It is exciting for our management team to figure out new ways to solve unmet market needs"). Similar to the procedure used for the individual entrepreneurial passion scale above, we conducted a series of confirmatory factor analyses to ascertain the discriminant validity of the three domains of TEP. We found the model where all items load on their intended factors to provide the best fit with the data (comparative fit index CFI=0.992; root mean squared error of approximation RMSEA=0.040; standardized root mean squared residual SRMR=0.039).

Since our level of analysis is the team, the next step was to aggregate the individual scores to the team level. Before doing so, we inspected the homogeneity of the individual ratings within the teams to ensure that TEP is in fact a shared team-level construct, consistent with Santos and Cardon (2019). We started by computing the within-group interrater agreement ( $Rwg_{(j)}$ ) (James et al., 1993) for the subscales capturing intense positive feelings pertaining to the three TEP domains and the items capturing identity centrality. Two teams had an  $Rwg_{(j)}$  score clearly below 0.7 for the intensive positive feelings pertaining to the passion domain founding and were thus excluded from further analysis. The index scores re-estimated after the exclusion of the two cases point to satisfactory interrater agreement: all  $Rwg_{(j)}$  scores for all teams exceed the threshold value of 0.7 (the lowest value for any of the six subscales was 0.72). Subsequently, we computed the ICC(1) and ICC(2) intraclass coefficients, which

**Table 1** Overview of cluster analysis for the three domains of individual entrepreneurial passion

	1	2	3	4	5	6
Inventing	High	High	Average	Average	Low	Low
Founding	High	High	Average	High	Average	Low
Developing	High	Low	Average	High	Average	Low

support the homogeneity of the ratings with the teams: the ICC(1) scores ranged from 0.10 to 0.22 (exceeding the threshold of 0.05; Bliese, 2000), while the ICC(2) scores ranged from 0.25 to 0.43. Since the evidence supported the aggregation of the individual ratings to the team level, we proceeded by averaging the scores of the items capturing the intense positive feelings toward each of the three domains of passion, and then multiplied the resulting index scores with the respective identity centrality scores (Cardon et al., 2013).

Next, we followed Santos and Cardon (2019) in undertaking a qualitative analysis of the type of TEP in each team. Using a comparison of maximum, median, and minimum absolute scores between the three TEP domains for each team, two authors independently coded the teams into monofocal (a higher score in one of the TEP domains compared to the others), incomplete polyfocal (higher scores in two domains compared to the third one), and complete polyfocal (minimal differences between the scores of the three domains of TEP). Differences in coding were discussed until a consensus was reached. As per Santos and Cardon (2019), we verified the coding by computing the Gini coefficient for each team. The coefficient ranged from 0.05 to 0.15 for monofocal, from 0.05 to 0.10 for incomplete polyfocal, and from 0.01 to 0.06 for complete polyfocal teams. The final coding used a combination of qualitative assessment and the Gini coefficient. For cases where a team could be categorized into any of the three TEP types based on its Gini coefficient, a qualitative assessment of the differences between the maximum, median, and minimum scores was used to decide on the most appropriate category.

The variable used in the regression analysis comprises four categories: dispassionate, monofocal, incomplete polyfocal, and complete polyfocal. The first category refers to teams that had a low overall passion level. We deemed it appropriate to code them into their own category so that we could reliably analyze the effects of having different types of TEP. It did not make much sense, for example, to compare complete polyfocal with monofocal teams, if the category of polyfocal teams included teams with very high and very low overall levels of passion. Typically, teams that had low levels of TEP had low levels of each type of TEP. We categorized as dispassionate those teams whose average TEP score across all three dimensions was a 0.5 standard deviation unit or more below the mean.

Dispassionate teams comprise 21% of the total sample. Controlling for them in the analysis allows us to analyze the differences between the types of TEP in teams that have medium to high levels of TEP in the first place. Because the theoretical model (Cardon et al., 2017b) expects polyfocal teams to perform better than monofocal teams, we rank-ordered the types of teams such that dispassionate are at the lowest level, followed by monofocal teams, then incomplete polyfocal, and complete polyfocal teams at the highest level.

### 3.2.3 Compassion

We captured compassion with a five-item scale adapted from Shiota et al. (2006). A sample item is: "It's important for me to take care of people who are vulnerable." The Cronbach's alpha coefficient for the scale is 0.81. Before aggregating the composite index score (average of individual item scores) to the team level, we removed one case from the analytic sample because of a low level of interrater agreement in the team. We reran the analyses pertaining to interrater agreement after the exclusion and found the index scores acceptable: the  $Rwg_{(j)}$  index has a mean of 0.94 with a minimum value 0.74; ICC(1) is 0.05 and ICC(2) is 0.10.

### 3.2.4 Self-compassion

We measured self-compassion with 12 items adapted from Raes et al. (2011). A sample item is: "I'm disapproving and judgmental about my own flaws and inadequacies" (reverse coded). In a factor analysis, the self-compassion items loaded on a different factor than the compassion items. However, two of the items had such poor loadings that we opted to discard them. The discarded items concerned the dimensions of over-identification and isolation within the scale. Thus, all the dimensions of the construct are still represented in the final 10-item scale used in the analysis. The scale has a Cronbach's alpha of 0.76. Before aggregation to the team level, we computed a composite index for self-compassion by averaging the item scores. The interrater agreement analysis led us to remove three cases from the analytic sample because of poor index values. After deleting these cases from the data, the index scores reached acceptable levels supporting the aggregation of self-compassion to the team level: the mean and minimum  $Rwg_{(j)}$  index scores were 0.94 and

0.75, while the ICC(1) and ICC(2) scores were 0.09 and 0.23, respectively.

### 3.2.5 Control variables

The final model includes the proportion of women in the team (in percent) and the level of age separation among the team members as control variables. The age separation variable was computed using a similar procedure as for intensity separation. Thus, high values stand for large and low values for small age differences within the team.

## 4 Results

### 4.1 Descriptive statistics and correlations

Table 2 presents the descriptive statistics and inter-correlations of all variables used in the hypothesis tests. The correlation coefficients are Spearman's rhos because TEP is measured on an ordinal scale.

### 4.2 Hypothesis tests

The final analytic sample comprises 100 venture teams of manufacturing SMEs. All variable scores pertain to the team, not the individual respondents. While having multiple respondents per team makes the data stronger and reduces the risk of uncovering spurious relationships, we acknowledge that the cross-sectional nature of the data means that we cannot fully examine the direction of causality between the variables.

Because the dependent variable (TEP) is measured on an ordinal scale, we compared a linear regression with an ordinal logit specification and found the Akaike and Bayesian information criteria to clearly favor the ordinal specification (AIC = 268.64; BIC = 294.69) over the linear one (AIC = 303.91; BIC = 324.75). Moreover, we ascertained the appropriateness of the ordinal specification by using the Brant test of parallel regression assumption. The chi-squared test score of 16.35 with 14 degrees of freedom is non-significant ( $p = 0.292$ ). This means that the coefficients of the predictors are the same for all thresholds in the ordinal dependent variable. A significant test would have indicated variation in the coefficients for the different thresholds in which case either a generalized ordinal or a multinomial logit model would have been the appropriate technique. In our case, we can estimate the equation pertaining to team entrepreneurial passion as a conventional ordinal logit regression.

We also inspected the model for multicollinearity, influential observations, and common method bias. Moderate variance inflation factor scores (mean 1.18; max 1.30) suggest that multicollinearity is not a problem. The Cook's distance scores suggested one potential influential observation. However, excluding this observation from the model did not change the results in any substantial way. Table 3 displays the ordinal logit estimates for the full analytic sample of 100 venture teams. Model 1 reports the unconditional effects, whereas Model 2 adds the interaction between focus variety and intensity separation.

We managed common method bias (CMB) by applying several ex ante measures, such as keeping

**Table 2** Descriptive statistics and correlations

	Mean	SD	Min	Max	1	2	3	4	5	6
1. Team entrepreneurial passion			0	3	1					
Dispassionate	21%									
Monofocal	25%									
Incomplete polyfocal	20%									
Complete polyfocal	34%									
2. Focus variety	0.51	0.20	0	0.75	.20*	1				
3. Intensity separation	3.60	2.30	0.10	8.83	-.04	.37*	1			
4. Self-compassion	3.67	0.33	2.90	4.40	.25*	.14	.04	1		
5. Compassion	3.70	0.35	3.00	4.80	.32*	.13	.05	.10	1	
6. Share of women (%)	0.14	0.51	0	1	.12	-.07	-.01	-.18	.17	1
7. Age separation	8.76	4.61	0	22.40	.02	.00	.15	-.08	-.03	-.18

Spearman rank-order correlations.  $n = 100$ .  
\* denotes statistical significance at the 5% level

**Table 3** Ordinal logit regression estimates pertaining to team entrepreneurial passion (TEP)

	(1)				(2)			
	Coef	SE	<i>p</i>	OR	Coef	SE	<i>p</i>	OR
Focus variety (FV)	1.72	1.11	.120	1.40	3.04	1.45	.036	1.82
Intensity separation (IS)	-0.27	0.20	.183	0.76	-1.19	0.68	.078	0.29
FS*IS					1.73	1.21	.151	2.53
Self-compassion	1.61	0.63	.010	1.70	1.54	0.64	.017	1.66
Compassion	1.53	0.63	.015	1.71	1.49	0.62	.016	1.69
Share of women	1.48	1.01	.144	1.39	1.26	1.02	.216	1.32
Age separation	0.03	0.04	.577	1.12	0.03	0.04	.462	1.16
Threshold 1	11.38	3.16			11.83	3.21		
Threshold 2	12.73	3.21			13.19	3.26		
Threshold 3	13.67	3.24			14.15	3.30		
Log-likelihood	-125.36				-124.32			
McKelvey and Zavoina pseudo R-squared	0.21				0.23			

*n* = 100. Coef. = logit coefficient; *SE* standard error; *OR* standardized odds ratio (exponentiated logit coefficient)

the questionnaire short, ensuring the anonymity of both individual respondents and their firms, and counterbalancing the question order (Podsakoff et al., 2003). In addition, we used Lindell and Whitney's (2001) marker test as an ex post statistical technique to examine CMB. This technique involves adjusting the correlations between the dependent and independent variables by the lowest positive correlation between these variables and a theoretically unrelated marker variable. We used the six-item Darwinian social identity type measure from Sieger et al. (2016) as a marker variable. We aggregated the measure to the team level using the procedure described above. The procedure marginally reduces the correlation coefficients between the dependent variable and the independent variables, but the significances remain intact. For example, the correlation between TEP and compassion prior to the adjustment is 0.32 with a *t*-value of 3.33, while after the adjustment, it is 0.29 with a *t*-value of 2.98. This suggests that common method bias is not a problem in our analysis.

The coefficients of focus variety and intensity separation are not significant in Model 1, which suggests lack of support for Hypothesis 1. However, when the interaction term is added in Model 2, these coefficients become significant. Even though the interaction term as such is not significant, the significance of the constituent terms points to a need for a closer inspection of the interaction effect. For this, we followed the recommendations of Brambor et al. (2006) and computed the

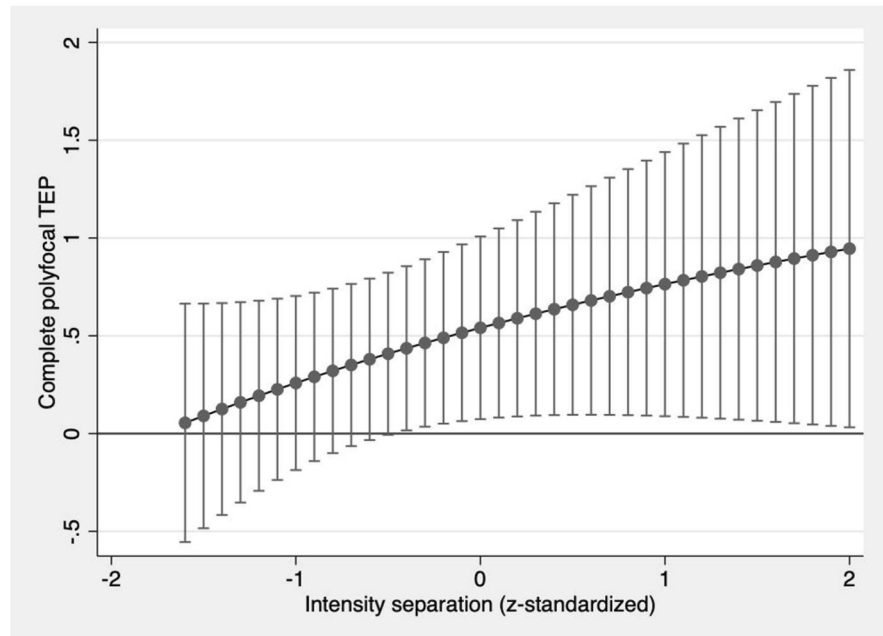
average marginal effect of focus variety across the full range of values for intensity separation in our sample. We find focus variety to have a positive and significant relationship with TEP when intensity separation is greater than 0.5 standard deviation unit below its mean. Figure 1 illustrates the interaction relationship. Thus, Hypothesis 1 is not supported as we find a higher probability for polyfocal TEP when there is a higher level of focus variety (consistent with our hypothesis) and a higher level of intensity separation (contrary to our hypothesis) in individual entrepreneurial passion among the team members.

We find clear support for Hypotheses 2 and 3: self-compassion and compassion are both positively and significantly related to TEP. This means that teams with high average levels of self-compassion and compassion are both more likely to have polyfocal than monofocal TEP, and complete than incomplete polyfocal TEP.

#### 4.3 Post-hoc analysis

In our post-hoc analysis, we seek additional empirical validation for our findings. Consistent with Cardon et al.'s (2017b) model, we test whether polyfocal TEP is more strongly associated with team outcomes than monofocal TEP, as also found in prior studies (Santos & Cardon, 2019). Moreover, we test whether TEP mediates the effects of team passion diversity (de Mol et al., 2020), compassion, and self-compassion on team outcomes. For this purpose, we used three measures

**Fig. 1** Average marginal effects of focus variety on the probability of complete polyfocal TEP across the full range of values for intensity separation (vertical lines show the 95% confidence intervals)



to capture different kinds of team outcomes (Cardon et al., 2017b). The two items adapted from Brunstein (1993) capture *team progress*, or the progress that the venture team has made to achieve their goals in the last year (Cronbach's alpha: 0.90). A sample item is: "In last year, our top management team made a great deal of progress concerning our company's goals." We measured *team potency*, the belief shared by team members that their team is effective at achieving desired results, using the six-item scale developed by Guzzo et al. (1993). The Cronbach's alpha is 0.85. A sample item is: "Our managing team expects to be known as one of the top performing ones." Finally, our analysis included *team identification*, the extent to which team members consider team goals as their own, which we measured with four items adapted from Mael and Ashforth (1992); Cronbach's alpha is 0.90. A sample item is: "The company's top management team is an important reflection of who I am."

Before computing the index scores for these variables, we ran confirmatory factor analyses to ensure the discriminant validity not only of these three scales but also those we used to capture compassion and self-compassion. The fit of the model where the items load on their intended factors is satisfactory (CFI=0.951; RMSEA=0.042; SRMR=0.059). Alternative model specifications, where one or more sets of items loaded

on a single factor, resulted in unambiguously worse fit with the data. The interrater agreement indices supported the aggregation of all three outcome variables to the team level: the mean  $Rwg_{(j)}$  scores range from 0.94 to 0.96 with minimum values from 0.68 to 0.74; the ICC(1) and ICC(2) indices range from 0.08 to 0.18 and 0.12 to 0.39, respectively.

The full model we test includes our three team outcome indicators (progress, potency, and identification) as dependent variables; TEP as the mediator; focus variety, intensity separation, self-compassion, and compassion as independent variables; an interaction between focus variety and intensity separation; and the two control variables. Since the model requires the estimation of moderated mediation effects, we opted for path analysis as the appropriate statistical technique. We estimated the model using generalized path analysis (*gsem*) in Stata 15. This allowed us to estimate the structural equation pertaining to TEP as an ordinal logit regression, and the paths to the three team outcomes as linear regressions.

Table 4 presents the path model estimates. TEP is significantly associated with all three indicators of team outcomes, albeit in different ways. Concerning *progress*, the only significant difference is between monofocal TEP (reference category) and the dispassionate control category: monofocal teams have

**Table 4** Path analysis including team outcomes

	TEP	Progress	Potency	Identification
TEP (base: monofocal)				
Dispassionate		-0.54 (0.15) .000	-0.43 (0.11) .000	-0.12 (0.17) .460
Incomplete polyfocal		0.13 (0.14) .359	0.27 (0.11) .011	0.11 (0.16) .510
Complete polyfocal		0.02 (0.13) .899	0.32 (0.09) .001	0.31 (0.15) .035
Focus variety (FV)	3.04 (1.45) .036	0.44 (0.37) .232	-0.30 (0.28) .280	0.26 (0.42) .545
Intensity separation (IS)	-1.19 (0.68) .078	-0.09 (0.17) .590	0.12 (0.12) .350	-0.34 (0.19) .075
FS * IS	1.73 (1.21) .151	0.14 (0.29) .640	-0.20 (0.22) .351	0.54 (0.34) .109
Self-compassion	1.54 (0.64) .017	0.08 (0.16) .608	-0.00 (0.12) .978	-0.17 (0.18) .345
Compassion	1.49 (0.62) .016	-0.04 (0.15) .778	0.12 (0.11) .268	0.06 (0.17) .742
Share of women	1.26 (1.02) .216	-0.08 (0.24) .749	-0.22 (0.18) .214	0.12 (0.27) .651
Age separation	0.03 (0.04) .462	-0.00 (0.01) .681	-0.00 (0.01) .612	-0.01 (0.01) .268
R-squared	0.23	0.25	0.42	0.17

*n* = 100. Path coefficients, standard errors (in parentheses), and *p*-values reported. Path coefficients pertaining to progress, potency, and identification are linear; the ones pertaining to TEP are ordinal logit coefficients. The R-squared in the TEP column is the McKelvey and Zavoina pseudo-R-squared

experienced more progress compared to dispassionate ones but the differences between monofocal and incomplete and complete polyfocal teams are not significant. In other words, teams with medium to high levels of TEP of any type experience more progress than teams with low levels of passion.

For team *potency*, dispassionate teams report significantly lower levels of potency than monofocal ones, while both incomplete and complete polyfocal teams report higher levels of potency than monofocal ones. However, running the analysis with different base categories for TEP we did not find differences between incomplete and complete

polyfocal teams. In the case of *identification*, the only significant difference within the TEP variable pertains to complete polyfocal teams reporting higher levels of team identification than teams with any other type of TEP (the coefficients of dispassionate and incomplete polyfocal TEP do not differ significantly from that of monofocal TEP). This evidence provides support for the Cardon et al. (2017b) model: teams with polyfocal entrepreneurial passion report higher levels of team outcomes, particularly in terms of team identification and team potency. Furthermore, teams with any form of passion (monofocal/polyfocal) report higher levels of

team progress than teams with low levels of passion (dispassionate).

Further, we examined whether TEP mediates the positive effects of compassion and self-compassion on team outcomes. We tested the mediation effects by computing the indirect effects of self-compassion and compassion via TEP on all three indicators of team outcomes. The coefficients of the indirect effects are reported in Table 5 together with the percentile bootstrapped confidence intervals as an appropriate test of significance for mediation effects (Hayes & Scharkow, 2013). Both self-compassion and compassion have significant indirect effects on team progress and team potency, mediated by TEP, whereas the effects on team identification are not significant (the range of the confidence interval contains zero). Focus variety has a significant effect on team potency but only when intensity separation is at a high level. Its effects on the other two team outcomes are not significant. These findings support the theoretical assumption of TEP being a mediator between individual-level antecedents and team-level outcomes (Cardon et al., 2017b).

## 5 Discussion and implications

The aim of our study was to critically expand our understanding of team entrepreneurial passion (TEP) by investigating the relationship between social emotions and TEP. Overall, we offer novel evidence to show that teams with high average levels of compassion and high average levels of self-compassion

will tend to experience polyfocal TEP, and this has a significant effect on team outcomes. Our results thus highlight the importance of positive social emotions for teams, not only for within-team dynamics but also to improve team-level outcomes. Previous studies have demonstrated the role of behavioural (Zhu et al., 2022) and cognitive factors (Taggar et al., 2019) within the team in the emergence of TEP. In this study, we expand the existing knowledge by highlighting the importance of having a social emotional perspective (Fischer & Manstead, 2018; Hareli & Parkinson, 2008) to develop understanding of team-level constructs such as TEP. Our findings indicate that positive other-oriented social emotions among team members are relevant for the processes underlying the sharing of positive emotions (Lilius et al., 2008) and a sense of connectedness between individuals (Frost et al., 2000; Neff, 2003a). This is in line with the theory of group affect (Kelly & Barsade, 2001) that explains how interactions between team members are highly interdependent on the team's affective experiences as a whole.

We further add to current understanding on the determinants of TEP by showing that team passion diversity among team members is positively related to polyfocal TEP such that teams that are high in both passion focus variety and intensity separation will have polyfocal TEP. While this confirms the argument that high focus variety is associated with polyfocal TEP (Cardon et al., 2017b), the role of intensity separation is contrary to the existing theoretical model and our assumptions. We offer three possible explanations. First, this result might be

**Table 5** Indirect effects of focus variety (at different levels of intensity separation), self-compassion, and compassion on team performance via team entrepreneurial passion (TEP)

Unstandardized coefficients.  
CI = percentile confidence interval based on bootstrap with 5000 resamples

	Progress			Potency			Identification		
	95% CI			95% CI			95% CI		
	Coef.	Low	High	Coef.	Low	High	Coef.	Low	High
Focus variety									
Intensity separation – 1 SD	3.44	–0.90	9.40	3.83	–0.79	9.60	0.50	–3.90	4.86
Intensity separation at its mean	5.23	–0.16	12.39	5.62	–0.19	12.69	2.29	–0.74	6.98
Intensity separation + 1 SD	7.02	–0.51	16.47	7.41	0.82	16.95	4.08	–1.11	10.81
Self-compassion	2.70	0.32	6.24	2.90	0.29	6.50	1.21	–0.13	3.66
Compassion	2.63	0.36	6.75	2.82	0.35	6.92	1.18	–0.11	4.33

explained by emotional contagion, which involves “the processes whereby the moods and emotions of one individual are transferred to nearby individuals” (Kelly & Barsade, 2001, p. 106). Emotional contagion has been found to occur not only in dyadic settings but also in groups (Barsade, 2002; Sy et al., 2005; Totterdell, 2000). We speculate that team members who experience more intense positive emotions could transmit their passion intensity to other members, thus allowing for TEP to occur, even when individual passion intensity is low. This is especially the case when the individual with stronger passion intensity has a visible and central role in the team (Kelly & Barsade, 2001).

Second, another possible explanation is that teams of established firms are more experienced in managing conflicts that arise from the high levels of dissimilarities in their individual passions. Compared to new ventures, teams within more established firms would have a stronger sense of familiarity and reduced uncertainty with one another, which in turn leads to lower levels of personally oriented conflicts (Ensley et al., 2002; Singh et al., 1986). This was further supported by Boone et al. (2020) who showed how, in the later stages of ventures, teams that are passionate about multiple activities (i.e., have polyfocal TEP) experience less relationship conflict. We therefore suggest that the stage of development and growth of the ventures in our study could explain the unexpected association of polyfocal TEP in teams that are high in both passion focus variety and intensity separation.

Third, polyfocal TEP could be occurring in teams with high levels of diversity in their individual passions due to the two additional explanatory variables in our model of the teams’ average compassion toward others and self. As noted above, compassion and self-compassion within teams support polyfocal TEP as they improve perspective taking (De Dreu et al., 2000; Neff & Pommier, 2013; Nussbaum, 1996), increase cooperation and the pursuit of collective interests (De Dreu & Nauta, 2009; Goetz et al., 2010), and strengthen the feeling of connectedness between team members (Frost et al., 2000; Neff, 2003a). Compassion and self-compassion are therefore possible explanations for why TEP can still be found in teams that are not considered optimal in terms of team passion diversity. This is further supported by our findings, which indicate that teams with

high average levels of compassion and self-compassion will be more likely to experience polyfocal TEP. In sum, we argue that the level of intensity separation might not be a critical aspect for the type of TEP that emerges within teams, but instead is a team characteristic that influences how challenging and time-consuming the process facilitating TEP will likely be. We encourage further research similar to that of Uy et al. (2021) that examines such processes over time.

We further extend current understanding of TEP by providing an empirical demonstration of the role of TEP as a mechanism through which passion diversity, compassion, and self-compassion positively affect team outcomes. As expected, we found that teams with polyfocal TEP are higher in team potency and team identification compared to teams with monofocal TEP. These results suggest that teams that are passionate toward multiple key activities are more confident in their abilities as a team. This finding could be explained by the fact that polyfocal teams are focused on multiple roles, which allows the team to have a wider set of resources to address different key activities. Specifically, venture teams of more established firms tend to be more involved in multifaceted work (Eisenhardt, 2013); hence, working in a team that is collectively passionate towards a wider range of key activities should enhance their team outcomes. The multiple foci of TEP in polyfocal teams are also more inclusive in nature and provide team members with more roles with which they can identify themselves. This inclusivity may help explain why polyfocal TEP is associated with better team outcomes in established firms despite high team passion diversity, which has been shown previously to have detrimental effects on the team performance of NVTs (de Mol et al., 2020). Essentially, when a team has high diversity in individual passions without a shared TEP, team performance suffers (de Mol et al., 2020). Yet when a team has a shared TEP that incorporates multiple foci (as polyfocal TEP does), the impact of that TEP on team outcomes is positive. Thus, one of the contributions of our study is to directly examine the relationship between passion diversity and TEP as they influence team outcomes within established organizations.

Interestingly, our findings show that while passionate teams are higher in team progress, there is no significant difference between teams with monofocal and polyfocal TEP. We thus suggest that team progress will benefit from TEP regardless of the type

of TEP formed since having a shared passion helps teams work together toward a common goal while maintaining focus and motivation. This result is in line with previous research on how collective identity contributes to work progress (Van der Vegt & Bunderson, 2005), and how shared positive group affect improves teamwork (Rhee, 2006) and group potency (Gibson, 2003). More importantly, we expand the existing theoretical model by introducing theory and evidence focused on how compassion and self-compassion enhance team outcomes through polyfocal TEP. In so doing, we answered the call of Shepherd (2015) and Rynes et al. (2012) who argued for a better understanding of the role of compassion in entrepreneurship and organizations. We show that not only does compassion towards self and others improve within-team dynamics, it also improves the outcomes of entrepreneurial teams. We encourage future research that further explores the role of compassion and self-compassion in different stages of the entrepreneurial process, for example by adopting qualitative and multimodal approaches to delve deeper into the complexities of social emotions in entrepreneurial contexts (Ginting-Szczesny, 2022).

Finally, our study offers important practical insights for managers and venture teams of SMEs. While prior work has established the potential benefits of TEP in new venture teams (Boone et al., 2020; Santos & Cardon, 2019), this is the first study that examines the emergence and outcomes of TEP in established firms. In terms of team formation, we suggest that selecting team members with diverse individual passions can facilitate TEP. Specifically, for polyfocal TEP and enhanced team outcomes, it would be more beneficial for managers to form teams with diverse passion foci. This will allow the team to make better progress in achieving their goals, increase the level of the team's potency, and enhance team members' identification with the team. The more critical practical implication of our study relates to the need for managers to direct their attention to the emotional aspects of teams. As we theorized and found, TEP is not only influenced by team members' individual passions but also by the extent to which compassion and self-compassion are high within the team. We suggest that TEP formation in teams with high passion diversity requires a positive emotional culture that is open and inclusive. Management attention should therefore be directed towards creating a culture that allows team members to openly

communicate and express their individual passions, thus allowing team members to contribute positively to the team while minimizing the risk of conflict. These emotional aspects of the team are critical for team dynamics and performance, and should receive attention not only in the initial team formation stage but also in the later stages of ongoing team operations. We encourage future research to further develop our understanding on the emergence and role of TEP in established firms.

We acknowledge several limitations in our study. First, while we have a unique dataset for examining the implications of TEP that draws from a large sample of venture teams, we collect our data from a single time point. The cross-sectional design of our study thus limits our ability to strongly infer causality from our data. While existing theories support the current formulation of our model, we call upon additional research to test the causal directionality proposed in our conclusions and to further examine the implications of compassion and self-compassion on team outcomes mediated by TEP through a longitudinal study. For example, the conceptual model of TEP (Cardon et al., 2017) notes a cyclical and recursive process such that over time, individual passions of team members influence TEP, just as TEP influences team outcomes, and ultimately individual passions of team members. Questions of causal direction and perhaps more importantly, cyclical relationships among individual and team passions (including both passion diversity and TEP), social emotions (compassion for self and others) and team processes (e.g., conflict) and outcomes (e.g., turnover) warrant further investigation.

Second, as we focused mainly on the types of TEP (from dispassionate to complete polyfocal TEP), we are not able to capture the complete variations of monofocal and incomplete polyfocal TEP, as well as examine its emergence and outcomes. Future research should examine the variation of domains of passion of a team's entrepreneurial passion in established firms. Particularly, a longitudinal study could examine whether specific passion focus of TEP is important at different points in time, similar to Boone et al.'s (2020) work. Further, building on Cardon et al.'s (2017b) theoretical model of TEP, we focused on the emergence of TEP based on passion towards roles and activities that are central to business venturing. While such an approach allows us to uncover the important relationship between team members' passion diversity

towards activities, TEP, and team performance, it ignores the possibility of other sources of entrepreneur's passion. Scholars have started to expand the domain of entrepreneurial passion to include a wider set of sources of passion, such as passion for people and passion for social mission (Cardon et al., 2017a), and work on entrepreneurial identities suggests other entrepreneurial individual and team identities that may be associated with passion (e.g., Fauchart & Gruber, 2011; Mathias & Williams, 2018; Mmbaga et al., 2020; Powell & Baker, 2014, 2018). We encourage future research to further expand our understanding of TEP in established firms by capturing additional domains of passion and team identities as they are also relevant for practice.

A third limitation is that although the results of our study support most of our theorizing, the generalizability of our conclusions is limited by our sampling. As we collected our data only from venture teams in the Finnish manufacturing industry, our conclusions may not be applicable to teams in different industries or areas of the world. Further, the share of women in the sample is relatively low (14% on average). We therefore encourage future research to examine the role of social emotions in TEP formation among teams in other industries, with samples of teams of different sizes and more equal gender representation.

## 6 Conclusion

In this study, we provide novel evidence that social emotions support the existence of shared entrepreneurial passion within teams. We extend current theoretical understanding about TEP by offering robust evidence of the relationships between team-level compassion and self-compassion and the existence of polyfocal TEP. Further, we demonstrate how polyfocal TEP is more beneficial for team outcomes than monofocal TEP in venture teams of established firms. Expanding on these insights, we highlighted the importance of understanding team-level emotions for explaining team-level outcomes, and we open up new avenues for examining the role of team entrepreneurial passion and social emotions in management and entrepreneurship. We encourage additional research to further develop our understanding of the potentially recursive relationships between TEP, team passion diversity, social emotions, and team outcomes in different stages of venture development and operations. Finally,

we see a great need for future explorations of the implications of compassion and self-compassion for other team-level constructs in management and entrepreneurship.

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## Declarations

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