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The emergence of team entrepreneurial passion from team helping: an affective events theory perspective

Xiumei Zhu, Shan Yang, Endrit Kromidha

Abstract. Research has acknowledged the outcomes of entrepreneurial passion, but little is known in regard to how it occurs. In this article, we shift the focus to the team level and investigate the emergence of team entrepreneurial passion (TEP) from the team helping perspective. Drawing on affective events theory (AET), we examine how team help-seeking and -giving facilitate TEP. Team-level analyses were performed on data drawn from 487 members of 112 new venture teams in an accelerator for high-technology firms in China. Our findings show that team help-seeking and -giving are in a direct relationship with TEP; they highlight how the interaction between these two aspects is positively associated with TEP. This article extends the study of TEP to team helping and treats the latter in relation to its two separate but related aspects of seeking and giving. Further, our focus moves from singular effects to an interactive perspective on the antecedents of TEP.

Keywords: Team entrepreneurial passion, intra team help-seeking, intra team help-giving, affective events theory

1. Introduction

The existing literature on passion is replete with individual-level studies (Gielnik et al., 2015); however, most new firms are started by entrepreneurial teams, as opposed to individuals, thus making the founding process a collective effort (Klotz et al., 2014). Existing studies suggest that individual entrepreneurial passion insufficient for the new venture process and that team entrepreneurial passion (TEP) deserves greater attention (Cardon et al., 2017). In particular, individual entrepreneurial passion is related to change and intense positive feelings over time (Collewaert et al., 2016); entrepreneurial outcomes however, are not always certain or positive (Ho and Pollack, 2013). Thus, TEP is viewed as important, given the effort required and the challenges that need to be overcome by new venture teams (Uy et al., 2021; de Mol et al., 2020; Santos and Cardon, 2019).

TEP is increasingly recognised as inherent in entrepreneurial efforts and as a key driver of new venture success (Cardon et al., 2017; Baron, 2008). In practice, new venture teams face high levels of risk and uncertainty (Angel et al., 2018); as team members struggle to solve increasingly complex and interdependent issues they rely on help from other members for improved teamwork. TEP, being the central motivation force fuelling entrepreneurship can lead to the achievement of entrepreneurial goals and higher new venture performance (Boone et al., 2020). Although the extant research highlights the importance of studying TEP (Murnieks et al., 2020), comparatively few empirical studies have done so, especially in regard to its emergence.

Most existing studies on TEP are predominantly focussed on emotion transmission mechanisms, such as emotion contagion (Taggar et al., 2019), and on the active guidance of entrepreneurs (de Mol et al., 2020). However, TEP is not simply the sum of instances of individual entrepreneurial passion, but an emotional and cognitive mechanism that involves sharing, aggregation, and convergence. On one hand, TEP embodies a collective identity (Cardon et al., 2017); as such, and unlike individual identity, it emphasises the experience and knowledge held by others, or collectivism (Hueso et al., 2020). On the other hand, TEP includes collective positive emotions and, in this sense, shared intense positive feelings and a collective identity connection have been the object of considerable scholarly attention (Cardon et al., 2017; Santos and Cardon, 2019; Taggar et al., 2019). Therefore, the existing studies on TEP conducted from the perspective of individual passion transmission are not sufficient to highlight its shared and convergent characteristics. It is thus, necessary to explore TEP at the team level, as the related antecedents not only lead to the transmission of individual passions but also better reflect TEP's shared and collective nature.

Theoretically, affective events theory (AET) (Weiss and Cropanzano, 1996) was used and advanced in our study to gain a better understanding of TEP and team helping interactions. The theory suggests that entrepreneurship consists of a series of entrepreneurial events; the analysis and processing of such events can lead to the eliciting and transforming of emotions. Some studies based

on AET have shown that positive workplace interactions play an important role in inducing passion (Lanaj et al., 2016). We argue that team help, as a work event, has a positive impact on TEP because helping is not only highly visible in the interaction of new venture teams, but is also an essential and generally important entrepreneurial event (Bamberger and Levi, 2009), being considered a normative interaction based on team members supporting and helping each other (Lin et al., 2019).

However, team helping is not an automatic single behaviour; it involves both seeking and giving aspects (Bamberger and Levi, 2009). Grodal et al. (2015) explicitly treated team help-seeking and giving as two separate behaviours to be studied. Specifically, team help-seeking shows a high degree of individual entrepreneurial passion and identification with member abilities and resources (Geller and Bamberger, 2011). In our study, we explored how help-seeking catalyses and leads team members to develop similar emotions, builds group identity and thus, contributes to TEP. Intra-team help-giving represents team member willingness to jointly devote time and effort to a new venture (Uy et al., 2017) and drives the shared emotional and collective identity of TEP. Although the existing literature on team help-seeking and giving often only emphasises one of these aspects, they are inseparable in both theory and practice and often occur simultaneously in a new venture process (Smallfield et al., 2020). Therefore, we considered team help-seeking and -giving, jointly, as an interactive process suited to promote TEP.

Our study was conducted in response to calls made to investigate the factors that contribute to the emergence of TEP (Newman et al., 2021; Uy et al., 2021) and, more broadly, the affective events that condition the activities of managers and entrepreneurs. First, drawing on AET, we expand knowledge on the relationship between TEP and team help, gaining an understanding of the emergence of TEP at the team level. We found that, on the one hand, team-level antecedents are a better reflection of the shared and convergent nature of TEP and, on the other, team helping is an important and common emotional event. It is a behaviour that is appropriate not only to generate emotional contagion, but also to combine collective identity more effectively. Second, we follow Grodal et al.'s (2015) assertion that team helping consists of two separate, but related, behaviours - seeking and giving. This means there are new venture teams in which help-seeking finds no response and others in which there is constant giving despite little active seeking. Therefore, we split team helping into its two separate components of seeking and giving and explore the impact of each on TEP separately. Third, we adopt an interactive perspective upon the antecedents of TEP by shifting our focus from the singular effects of the different antecedents of help-giving or -seeking to the interactive aspects stemming from their interplay. Our article contributes to the literature by responding to calls for research combining team help-seeking and -giving by demonstrating the importance of their interaction in generating TEP.

2. Theory and literature review

2.1. Affective Events Theory (AET)

Affective events theory (AET) provides a framework suited to identify the causes of individuals' reactions to workplace events. It explains the relationship among the emotional events experienced at work, the emotional reactions they elicit, and attitudes/behaviours (Kelly and Barsade, 2001). AET is now widely used to explain emotional responses to workplace situations, where events are a major source of emotional triggering (Weiss and Cropanzano,1996). An event can be defined as "*change, a change in circumstances, a change in what one is currently experiencing*" (Weiss and Cropanzano, 1996: 31). Affective events can be either positive or negative and may originate from various sources such as the organisation, the external environment, or team members.

Positive events, such as leader-member exchange (Cropanzano et al., 2017), transformational leadership (Ding and Lin, 2021), or team flexibility (Wang et al., 2021) can trigger positive emotions such as entrepreneurial passion, job satisfaction, organisational trust, and affective commitment, and thus favourably influence workplace behaviours. Informed by AET, Hareli and Rafaeli (2008) identified the emotional cycles that occur in organisational contexts, suggesting that positive emotional reactions influence the attitudes/behaviours of both individuals and whole teams. Such reactions also constitute affective events that, in turn, influence emotional experiences, thus establishing a cyclical process. Research therefore shows that positive affective events tend to be contagious.

At the same time, entrepreneurs at all levels are exposed to a variety of negative events, such as fear of failure (Stroe et al., 2020), project failure (Patzelt et al., 2021), and termination (Butts et al., 2015). These challenging events bring about negative affective states, such as anger and burnout, the excitement of which may nevertheless be enjoyed by some entrepreneurs. For example, Tadic et al. (2015) suggested that time-pressured events can increase individuals' positive affective experiences. According to AET, perceptions of negative events as challenging tasks can influence emotional responses, with individuals potentially being inspired to be competitive. This identification with negative events can inspire individuals to develop positive passions. However, individuals may also perceive negative events as overwhelming work challenges, which can engender negative emotions.

Overall, AET underscores the role played by various affective events in determining emotions (Weiss and Cropanzano, 1996). TEP, as an intensely positive team emotion, is inextricably linked to affective events. Although new venture teams are highly exposed to a variety of emotionally challenging events, any positive perceptions of negative events can promote greater team motivation to solve problems and reduce the experience of negative emotions. This emphasises the need to have enough positive affective events to generate positive emotions. Research conducted through the theoretical lens of AET has clearly shown that positive affective events can not only have a positive

affective impact but can also effectively buffer any negative emotions brought about by challenging events (Patzelt et al., 2021; Stroe et al., 2020). This is the important reason why some entrepreneurs persevere in the face of any obstacles and hazards encountered in the entrepreneurial process. Exploring the positive affective events that trigger TEP, such as team help, is thus of great significance. AET, which is based on an interactionist perspective, suggests that the interaction between team members is an important positive affective event (Butts et al., 2015). The extreme uncertainty and unpredictability of entrepreneurship, the high personal risk to entrepreneurs, the close bond between entrepreneurs and their ventures, and the varied and ever-changing tasks faced by entrepreneurs (Baron, 2008), cause entrepreneurship to involve a higher degree of interdependency and creativity compared to organisational work (Harper, 2008), resulting in interpersonal behaviours significantly influencing TEP. The interactions within new venture teams thus provide ample possibilities to participate in team help behaviours. Therefore, based on AET, team helping is an important affective event that contributes to the emergence of TEP.

2.2. Team entrepreneurial passion (TEP)

TEP is a team-level extension of entrepreneurial passion. A team experiences TEP in relation to a specific entrepreneurial role if, irrespective of individual entrepreneurial passions, such role (1) is meaningful to it and is internalised as a collective identity centrality and (2) gives rise to shared intense positive feelings (Cardon et al., 2017; Santos and Cardon, 2019; de Mol et al., 2020).

One is collective identity centrality, which is the significant difference between team- and individual-level passion. Cardon et al. (2017) argued that TEP can only emerge if a team possesses a collective central role identity, meaning that it has a shared identity as an entity. A collective identity reflects a situation in which the 'who we are' is separate from 'who I am' (Galvin et al., 2015) in terms of goals, values, and activities. The other is represented by shared positive feelings towards the previously discussed collective identity (Cardon et al., 2017). Prior research states that the transfer of individual emotions is a prerequisite for group affect to emerge (Cardon, 2008). Team members are therefore likely to adopt the expressed emotions of others when they are related to a collective role that is considered relevant for the new venture team (de Mol et al., 2020).

In terms of the two components of TEP, Cardon et al. (2013) stated that intense positive affect and identity centrality are "*conceptually and empirically distinct from each other*" (Cardon et al., 2013: 374). Research has confirmed this notion and demonstrates that it is reasonable to disentangle the two components in studies on the development of passion (Collewaert et al., 2016; Uy et al., 2021). Identity is the subject's perception and positioning. TEP places great emphasis on collective identity, the experience and knowledge of others, and the whole new venture team (Boone et al., 2020), which has a high degree of centripetal force (Yttermyr and Wennberg, 2021). It is not a simple

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superposition of individual identities, but one that each member shares in the process of development and interpersonal interaction. More importantly, collective identity centrality tends to be a more stable component of passion and can have long-term effects. For shared positive feelings, the affective component is the predominant facet of passion (Stroe et al., 2020), and has been the greater focus of research, particularly in the study of the dynamics of emotion (Boone et al., 2020; Uy et al., 2021). The affective component is more prone to fluctuations over time. Through interaction and contagion, individual passions converge and are shared resulting in intense and sustained shared positive team-level feelings that contribute to entrepreneurship development. Shared positive feelings are therefore, a complex mechanism and not simply a collection of positive emotions experienced among team members.

Although the components of affect and identity are distinct, TEP only emerges as a result of a combination of the two. AET states that an emotional response is not triggered directly by an event in itself, but rather by its cognitive appraisal (Thorgren and Wincent, 2015). Such cognitive appraisal involves a more meaningful analysis of workplace events, such as whether they will be beneficial to the team development, and generates emotions based on a collective identity. Therefore, the collective identity of TEP is the basis for positive feelings and the fundamental element of team perceptions. In addition, entrepreneurial passion differs from ordinary emotions in that it is a reconfiguration of psychological emotions from the perspective of entrepreneurial identity (Cardon et al., 2009). The dual emphasis on affect and identity in TEP overcomes the shortcomings of the trait-based paradigm of entrepreneurial behaviour analysis and breaks through the sensibility limitations of passion, enabling a more flexible presentation of thoughts, attitudes, and behavioural patterns. Overall, the two components of TEP—identity and affect—are distinct and interrelated in new venture teams. Drawing on AET, the collective identity centrality of TEP is formed between team members in the presence of affective events likely to bring them the kind of entrepreneurial activities/domains they want or need. In line with the collective identity orientation, a new venture team undertakes entrepreneurial activities. The events that occur in the workplace reinforce the convergence and contagion of individual emotions, which gradually converge to form shared intense positive feelings, constantly internalising the collective identity and developing TEP. TEP not only reflects an important affective component through the cycle of affect and identity, but also overcomes the transient and pervasive nature of emotion and builds an emotionally internalised perception of identity.

Most existing studies of TEP explore its relationship with performance (Santos and Cardon, 2019; de Mol et al., 2020); such research focuses upon the consequences of TEP however, its emergence is largely neglected. In one of the few studies of the antecedents of TEP, Taggar et al. (2019) found that a high level of person-team fit is a positive predictor of TEP. Although Cardon et

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al. (2017) did not address the antecedents of TEP directly, they proposed that TEP may emerge from either top-down or bottom-up processes. The former, which refer to a new venture team as a whole, take place through psychological strength, social norms, team development, and other aspects that promote TEP. Bottom-up processes stem from the aggregation of each member's emotions to form team-level entrepreneurial passion, placing greater emphasis on the contagion and convergence of member passions (Uy et al., 2021). In addition, entrepreneurial passion exhibits a certain 'unpacking effect' on the new venture process at the team level (McRae et al., 2012), which means that the addition of an individual may lead to a 'tug of war' between team emotions. However, the unpacking effect of entrepreneurial passion essentially reinforces the idea that TEP originates from the 'we are a team' concept. As such, members begin to think as a team, with common goals and a collective identity such that TEP arises through mutual contagion and cohesion. Both top-down and bottom-up processes emphasise the importance of team interactions, especially in the entrepreneurship process, in which new ventures need to rely more on the team to help solve any entrepreneurial problems.

2.3. Team help

The helping behaviours are acts whereby help is offered to others without the expectation of anything in return. With increased research on helping behaviour and teamwork, Choi (2009) explored team helping behaviours; these are considered to be a collective phenomenon based on norms of mutual support and team characteristics. These aspects are commonplace and complex in the presence of highly interdependent and innovative entrepreneurial activities (Grodal et al., 2015). These are a type of interpersonal, cooperative, and affiliative extra-role behaviours directed toward the members of one's work team (Fu et al., 2021; Van Dyne et al., 2008). Team helping is thus, especially important for team effectiveness when roles are interdependent and when greater member cooperation can enhance team performance.

Recent studies have emphasised the key question, relating to team helping, of why one entity might help another (Morales et al., 2020; Mueller and Kamdar, 2011). This question can be addressed through the two concepts of help-seeking and help-giving (Grodal et al., 2015). Help-seeking refers to new venture team behaviours in which members to ask others, or the whole team, for help on new firm funding and strategy issues. It involves efforts aimed at getting assistance from other members (Cleavenger et al., 2007). Help-giving, however, involves entities that respond to help-seeking. It is defined as the willing devotion of time and energy to unreservedly assist others and share constructive ideas (Hargadon and Bechky, 2006). team help-seeking and -giving are separate yet, related affective events in new venture teams.

The concept of help-seeking has received attention from the educational, social-psychological, and clinical psychological perspectives (Cleavenger et al., 2007; Mueller and Kamdar, 2011). Help-

seeking refers to the solicitation of others' emotional or instrumental assistance to manage either work-related or personal problems that have a bearing on performance (Lim et al., 2020), which occurs mainly in problem situations. The antecedent variables of help-seeking are perceived challenge pressure (Zhao et al., 2021), learning climate (De Vos et al., 2021), stressors (Liu et al., 2021), task interdependence, and so on. In new venture teams, team help-seeking is aimed at jointly solving entrepreneurial problems and dealing with the uncertainty of the start-up process.

Help-giving has been considered to provide the informal, yet effective power, to solve problems in teams (Fu et al., 2021). Existing studies have pointed out that help-giving behaviours can stem from two sources. One is personal concerns or pursuits, such as impression management (Liu et al., 2020) or the satisfaction of personal functional motives and strategic resource investment (Bamberger and Levi, 2009). The other is the interest of others, such as collective identification (Hargadon and Bechky, 2006) or compassion for others (Toegel et al., 2013), which can accelerate relationship building and virtuous social exchange norms. Even though some help-giving behaviours are not built on motives relating to the assistance of others, we argued that they may not necessarily result in resource exhaustion and a negative psychological state. Under this condition, help-giving has a greater likelihood to solve team problems, and could satisfy the help providers' personal needs and activate their intrinsic motivation, which is beneficial for general team well-being. Prior research has clearly indicated that giving help can boost positive affect (Chuang et al., 2019; Koopman et al., 2015). Overall, team help-giving promotes the efficient and effective functioning of the team.

It is important to note that both team help-seeking and -giving involve high costs and thus, require appropriate behavioural support to reduce any related negative effects. Help-seeking has significant instrumental and psychological costs. Help-seekers need to spend time and effort to find appropriate help providers in new venture teams (Geller and Bamberger, 2011), and being proactive requires some psychological build-up. Help-giving has reciprocal costs requiring a highly harmonious new venture team environment (Givi, 2021). Often, help providers set exceedingly high expectations and demands on the team, making it difficult to integrate entrepreneurial passion at the team level.

Overall, team helping is a cooperative behaviour. Unlike altruistic behaviours, helping is not necessarily based on benefiting the individual. Although much research has examined how helping behaviours may promote work team performance (Podsakoff et al., 2009), comparatively few studies have examined how team helping may influence team emotions in an entrepreneurial context. Moreover, Grodal et al. (2015) noted that the long-term interactions between team help-seeking and giving contribute to effective organisational routines that emphasise the seeking of common ground at the team level, driving all members to immerse themselves in the new venture process. Total team member commitment, which helps to unify the group mood and to establish a collective identity, contributes to the development of TEP. Therefore, based on the role played by the single antecedent

variables of team help-seeking and -giving, we further explored the effects of the interaction between team help-seeking and -giving on TEP.

3. Hypotheses Development

3.1. Intra-team help-seeking and team entrepreneurial passion

Intra-team help-seeking, which can be seen as an activity or behaviour that serves a constructive purpose (Mueller and Kamdar, 2011), is a common workplace event in new venture processes. According to AET, team help-seeking is more likely to occur as the entrepreneurial process faces more challenges and uncertainties. As an important part of the entrepreneurial problem-solving process, new venture teams with high levels of help-seeking may be more likely to develop TEP.

We first propose that help-seeking promotes the collective identity centrality of TEP. Help-seeking represents the team identification of the capabilities and resources of members, who gradually begin to develop a sense of who they are within the team. Help-seeking goes further, assessing the fit of the perceived collective identity thus, constantly assessing and confirming 'who we are' and forming the collective identity centrality. In addition, by actively seeking help, team members can create a richer information library thereby expanding the construction of the 'identity reservoir' (Treffers et al., 2019), which enables a smooth identity enactment process (Cardon et al., 2017), and the further strengthening of the collective identity centrality of TEP. Furthermore, when a new member joins a new venture team, team help-seeking behaviours are particularly important to foster collective identity centrality (Hargadon and Bechky, 2006). Help-seeking provides new members with opportunities to enact their identification with the team by making substantive contributions to the team's underlying purposes (Gray et al., 2020). Thus, team help-seeking fulfils new member expectations of appropriate treatment within the collective identity that they have joined to make important contributions (Blader and Tyler, 2009). By providing a context in which members can enact their identification and make meaningful contributions to the whole team, team help-seeking is likely to facilitate the development of the collective identification of TEP.

Additionally, help-seeking increases the shared positive feelings of TEP. Cleavenger et al. (2007) pointed out that help-seeking is a dynamic process whereby help-seekers proactively communicate with other team members (Spitzmuller and Van Dyne, 2013), expressing the urgency to solve an entrepreneurial problem. This behaviour enables other members to perceive the help-seekers' strong and positive feelings towards entrepreneurship (Klyver et al., 2020) and to transmit their positive individual passion to the whole new venture team. This, in turn, forms an important emotional component of TEP. At the same time, it may enable help-seekers to develop and master the knowledge and skills necessary to solve essential entrepreneurial problems. These enhanced capabilities would then enable them to increasingly contribute to the collective goals, leading to

elevated self-worth and individual entrepreneurial passion (Geller and Bamberger, 2011; Mueller and Kamdar, 2011), which enhances TEP. Moreover, this act signifies the help-seekers' potential in terms of independent learning and commitment in pursuing skill development. As such, help-seekers are more likely to be viewed by a new venture team as competent entrepreneurs in possession of great capabilities and potential to contribute to the common goals. Trust between team members and greater confidence in the achievement of entrepreneurial goals drives the shared positive feelings of TEP. Therefore, we propose that:

Hypothesis 1. Team help-seeking is positively linked to team entrepreneurial passion.

3.2. Intra team help-giving and team entrepreneurial passion

While team help-seekers identify and invite the members best suited to contribute to new venture problem-solving efforts, such behaviours do not always ensure the collaboration of others. In contrast, team help-giving behaviours represent cooperation-oriented, attributed extra-role behaviours that include helping new venture teams to solve entrepreneurial problems and sharing knowledge and experience. They are not enforced or performed with the interference of external factors but are voluntary. According to the AET, help-giving is an important and indispensable affective event to deal with entrepreneurial risks in new venture teams.

Help-giving will have a positive impact on the emergence of TEP. Previous research has shown that there are two dominant explanations for help-giving from the giver's perspective: reciprocity and positive emotions (Grodal et al., 2015). According to the norm of reciprocity, help-giving is an adaptive learning strategy aimed at continuing the learning process (Flynn, 2003). Help providers not only improve their self-efficacy through adaptive learning (De Clercq et al., 2013), but also help the entrepreneurial learning of team members, meet the needs and motivations to acquire new skills, and promote team effectiveness (Yttermyr and Wennberg, 2021). As team effectiveness strengthens the whole identity cognition, team members realise the transformation from the one-self to the collective-self (Kromidha and Robson, 2016), that is the shared collective identity of TEP. When individuals observe their team exhibiting help-giving behaviours, they tend to believe that such behaviours are encouraged in the new venture team and thus, are more willing to engage in similar actions (Chiu et al., 2021). Tripathi et al. (2020) assumed that the investment of an individual's energy, time, effort, and attention into an object causes the self to become one with that object. Gradually, through frequent social interactions, team help-giving becomes a shared collective behavioural norm that will drive the collective identity centrality formation. Frequent team help-giving behaviours, therefore, strengthen the formation of constructive, cooperative group norms (Lin et al., 2019) thus, converging to the higher collective identity centrality of TEP.

Help-giving behaviours also lead to a greater emotional component of TEP. The study of emotion has long shown that help-giving encourages people to focus on long term relationships, rather than on short term personal costs (Bartlett and DeSteno, 2006), as a result, people may experience positive emotions and a greater sense of obligation through help-giving behaviours, which will aggregate to the intense shared positive feelings of TEP. Likewise, the presence of many constructive help-giving relationships in a new venture team means that individuals feel obligated to assist others in return, even without being asked for it (Bamberger et al., 2017). This means that they will be willing to give their passion to the team and thus, build shared positive emotions. According to AET, team help-giving indicates proactive and positive team interactions (Podsakoff et al., 2009) that generate a team-level mood perception for members. Previous research has demonstrated the correlation between positive affect and help-giving behaviours, often positioning positive affect to precede helping, or evidencing reciprocal effects (Lin et al., 2019). As our focus was on the emotional perceptions of new venture teams, we posit that high levels of the shared positive feelings of TEP are signalled by more help-giving behaviour. Therefore, we suggested the following hypothesis:

Hypothesis 2. Team help-giving is positively associated with team entrepreneurial passion.

3.3. *The interaction effects of team help-seeking and giving*

The aforementioned discussion has highlighted how TEP can be directly linked to help-seeking and help-giving. However, help-seeking and help-giving are inseparable (Grodal et al., 2015). The relative absence of research on help-seeking and giving is therefore, surprising even though people have gradually realised that team helping is rarely a spontaneous behaviour; rather, it occurs in response to a help seeker's solicitation of assistance (Flynn, 2003). Through the joint use of help-seeking and help-giving, our study attempted to capture the interaction between team members. Based on AET, we emphasise that affective events with high levels of team help-seeking and -giving enable more effective team interaction and promote the emergence of TEP.

Help-seeking behaviours are triggered when a problem is too difficult or too big for an individual to solve independently. As such, they are, by definition, problem-oriented (Lim et al., 2020), team help-seeking may have significant instrumental and psychological costs (Koopman et al., 2015). If there is a low level of help-giving within the team, these costs have the potential to offset its otherwise beneficial effects on TEP. Team help-seeking is not an effortless activity; indeed, help seekers may need to spend time and energy on identifying and approaching the most appropriate providers (Settoon and Mossholder, 2002). Thus, the enthusiasm and team identity of help-seeking members may decrease in relation to the extent to which time and energy are withheld for a help-giving activity. This makes is difficult to develop a collective identity experience between members, gradually

creating a gap and making it more difficult to develop a positive de-emphasis oriented towards the shared identity of TEP. There is also a case whereby team help-seeking draws new members into the new ventures, but low levels of help-giving keep members at a distance (Gray et al., 2020; Yttermyr and Wennberg, 2021). In this case, it may be easy to trigger the unpacking effect of TEP; i.e., it becomes difficult for new members to have opportunities to enact their identification with the whole team. Thus, although help-seeking may maximise opportunities to build collective identity, the lack of a help-giving response could also diminish member motivation to invest in the collaborative process (Baldridge and Swift, 2013). With low levels of help-giving, new members may retain their ideas, knowledge, and advice, shelving the problem as they gradually reduce their collective sense of belonging to the TEP as a whole. Therefore, there may be a blockage of entrepreneurial issues that hinders the emerging process of TEP, as high-levels of help-seeking events are not met with high-levels of team help-giving.

However, this does not mean that high levels of help-giving alone will necessarily promote TEP. Although team help-giving may result in better communication and greater mutual support and may motivate members to pursue shared goals and success (Spitzmuller and Van Dyne, 2013), scholars have paid some attention to the negative cognitive or affective costs to the helpers (e.g., time pressure and negative affect) (Givi, 2021; Flynn, 2003) that are directly triggered by a helping response. Lin et al. (2019) pointed out that help-giving can sometimes be seen as a burden by the help-receivers. As help-giving is goal-oriented, help-providers are likely to relate to the task and show more integrative behaviours that go beyond their usual responsibilities and so, face resource exhaustion (Fu et al., 2021). This drain on resources gradually reduces the help providers' trust in the team, as they perceive the costs of helping others to be greater than the benefits. Under these conditions, their entrepreneurial passion is reduced and they are reluctant to share their ideas with the team, making it difficult to develop a collective shared identity and build TEP. Further, high levels of help-giving behaviours may incur reciprocation costs, as help providers may hold that their team members have a reciprocal obligation to offer team assistance. In contexts with high levels of help-giving and low levels of help-seeking, it is easier to form dependent relations (Bartlett and DeSteno, 2006). Team members may become accustomed to solving problems directly when problems arise, rather than sharing knowledge with the recipients of their help. This will not only affect their enthusiasm but will make it more difficult for the help recipients to improve and will not be conducive to TEP.

The extent to which team help-giving contributes to TEP is likely to depend on how much a new venture team leader also engages in help-seeking behaviours. Although sometimes help-providers see giving help as a burden and tend to act passively, seeking help can reduce negative effects. For example, previous research on new creative teams has shown that when help-giving is paired with a behavioural event of seeking, team members are more collaborative and responsive to each other's

help-seeking and -giving behaviours (Gray et al., 2020). This not only accelerates the integration of the relationship, but also enables helpers to realise their personal concerns or pursuits, integrate their self with the team and build a collective identity. In the presence of a well-circulated helping interaction atmosphere, team members build confidence in the new venture and enhance shared positive feelings towards the collective identity. Similarly, the extent to which help-seeking behaviours affect TEP depends more or less on the level of giving. Team help-seeking does impose certain psychological and emotional costs but is the key to unlocking team interaction (Grodal et al., 2015) and, along with a high level of help-giving, will build the pathway to team interaction, thus opening the way to a collective identity. Help-seekers feel they have created the current state of a task and thus, experience a sense of belonging. At the same time, help-providers feel a sense of achievement in the process and are thus more willing to contribute to TEP. An empirical study showed that providing advice or work solutions to their co-workers enables team members to better demonstrate their professional skills and authority and obtain professional status (Wakefield et al., 2014). The establishment of a sense of belonging and achievement drives the emergence of TEP.

Although TEP is also subject to the risk of individual members joining or leaving and the entry of new members may be affected by other passionate members the interaction between team help-seeking and -giving can reduce the negative effects of this situation and promote TEP. In teams with high help-seeking and -giving interactions, if a new member is inclined to seek help, any entrepreneurial problems will be dealt with by the new venture team which, in turn, will evoke positive feelings towards entrepreneurship, gradually building the collective identity and creating TEP. Conversely, if a new member is inclined to give help, he/she will join the team with a high-level of team help-seeking attitude conducive to achieve efficient interaction, enhancing the sense of achievement and team identification, and driving the formation of TEP. In low help-giving or -seeking work events, on the other hand, individuals joining a team are likely to be influenced by it as a whole, which reduces individual entrepreneurial enthusiasm and the likelihood of TEP.

Actually, the interactions between help-seeking and -giving are necessary to truly establish problem-solving processes. Problem-solving activities relate to identity cognition and emotional contagion (Grodal et al., 2015), which promote TEP. Specifically, team members have greater opportunities to share their identities and emotions to build TEP, and will actively participate in learning behaviours, thus converging toward a common level of intensity or a focus on positive feelings (Murnieks et al., 2016). Through the interaction between team help-seeking and -giving, members transmit their individual entrepreneurial passion by perceiving, understanding and learning from the emotions of other members within the team. The passion intensity in the team gradually becomes more similar in pattern (de Mol et al., 2020), the member passions gradually converge and interact with each other and, over time, gradually transform into TEP. At the same time, new venture

team members will subconsciously adjust and modify their behaviours to coordinate and synchronise with the team, thereby developing a stronger sense of identity in TEP. Interaction between help-seeking and -giving may cultivate stronger supportive emotions, a multidirectional process that enables the achievement of a collective identity (Boone et al., 2020), thus forming TEP. Furthermore, greater interaction between help-seeking and -giving is more likely to form lasting TEP by establishing organisational routines (Grodal et al., 2015) linked to, for example, joint mobilisation, continued engagement, overcoming impasses, and preparing for the future. Team routines contribute to strengthening the feelings of safety, mutual trust, and, most importantly, the tendency to learn from each other's experiences at work (Boone et al., 2020). In turn, these routines ensure the ongoing participation of both help seekers and providers in a continuous cognitive and emotional engagement, and facilitate intense shared positive feelings and the identity centrality of TEP. Therefore, we propose that:

Hypothesis 3. The interaction of team help-seeking and -giving is positively associated with team entrepreneurial passion.

Insert Figure 1 about here

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4. Methodology

4.1. Sample and data collection

We collected and analysed data from 487 members of 112 new venture teams participating in an accelerator designed for high technology ventures in Beijing, China, which attracts aspiring entrepreneurs, start-ups, and spinouts located in any country each year. The primary value that participation in the accelerator brings to the new venture teams is linked to financial support, mentoring, network connections, and brand recognition. The selected teams attend a one-week training session aimed at developing tech-based ventures and successful go-to-market strategies. Some of the data were collected during this session. The lead researcher attended the training session, presented the research project, and asked for the voluntary participation of all teams. Surveys were distributed in-person to the attending team members, and a link to an online survey was sent to those who were absent.

This study employed a survey questionnaire as its data collection instrument. The questionnaire was originally prepared in English and then translated into Chinese by two management researchers competent in both languages and with substantial research experience in the subject area in China. To avoid any cultural bias and ensure validity, two management PhD candidates then back-translated the Chinese version into English. The questionnaire was pre-tested in three ways. First, we presented

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the questionnaire to two management professors, asking them to identify any ambiguous or irrelevant items. Second, we solicited feedback from four more academic experts to critically evaluate the scale items and their ordering. Those experts were also asked to identify any items that failed to capture the construct and to suggest additional items that would contribute to capturing the entire construct domain. Third, we conducted eight in-depth interviews with new venture teams, asking them to verify the relevance and completeness of the measures, and we edited the questionnaire according to their advice. We further conducted a pilot study with ten teams (which were then excluded from the final survey sample).

The questionnaire survey, which lasted three months in total, was divided into three main stages. Before the survey, we sent an invitation and a letter to 600 new venture teams explaining the background and purpose of our research. They were informed that all answers would be confidential and would be used only for research purposes. The leaders of the teams that chose to participate in our survey reported their basic information, filled out a table with the details of their teams—including each team member's name, gender, age, position, and contact information—and assigned each team member a number starting from 1. This coding ensured respondent anonymity and reduced biases in responses. We received information on a total of 1,467 members of 419 teams. In cooperation with the leader of each new venture team, we distributed a copy of our questionnaire to each member.

During the first and second weeks of the second phase, we briefly introduced the purpose of the study and assured our participants of the anonymity of the research data. All members reported their demographic information and evaluated team helping. They then sent the completed questionnaire to one of the researchers independently. During the third week, we sent reminders to those members who had not yet answered the questionnaire. In the fourth week, we counted the responses and screened out those with missing answers or with the same score selected throughout. We also filtered out those teams in which fewer than 50% of members had participated in the survey. In the second stage of the questionnaire, we received a total of 923 responses from 243 teams.

In the third stage, which was also a four-week process, our main focus of investigation was member perceptions of TEP. When all third-phase questionnaires had been collected, we matched the data using the information comparison table filled out by the team leaders and checked whether the demographic information table was consistent. After excluding samples with inconsistent demographic information or with fewer than three members, and three incomplete data samples, the valid sample comprised 112 new venture teams with 487 members. The average number of members for each team was 4.34 (the teams had three to six members). Overall, 37.99% of the members were female.

4.2. Measures

Team Entrepreneurial Passion (TEP). We used the 13-item list proposed by Santos and Cardon (2019), which was generated based on the referent shift model (Chan, 1998). The items had been formulated using first-person plural pronouns—we, us, our, and ourselves—so that respondent answers would reflect what their respective teams were passionate about, rather than their individual entrepreneurial passions. TEP was assessed for both the shared intense positive feelings and identity centrality dimensions. Each item was assessed on a 7-point scale ranging from one (completely disagree) to seven (completely agree). All research variables were assessed based on a set of psychometric properties that included Interrater Agreement Index rwg values and Intraclass Correlation Coefficients ICC (1) and ICC (2). The Cronbach's α values for shared intense positive feelings and identity centrality of TEP were found to be 0.93 and 0.87, respectively. The test of the team agreement for TEP showed that the mean rwg for shared intense positive feelings was 0.93 and that for shared identity centrality 0.81. The ICC (1) estimates were found to be 0.40 for shared intense positive feelings and 0.33 for shared identity centrality. The ICC (2) estimates were found to be 0.74 and 0.68, respectively. Thus, we aggregated the individual-level responses to the team level.

Team Help-seeking. The help-seeking behaviour scale was adapted from that developed by Geller and Bamberger (2011) to focus on members asking for help with entrepreneurial problems that required creativity to solve. The Cronbach's α value for help-seeking was 0.96. A test for team agreement on team helping produced a mean rwg for help-seeking of 0.75, with an ICC(1) estimate of 0.51 and an ICC(2) estimate of 0.82.

Team help-giving. Help-giving behaviour was measured using a three-item scale adapted from Settoon and Mossholder (2002) to focus on help given to team members with entrepreneurial problems, rather than in a broader sense. The Cronbach's α value for help-giving was found to be 0.91. A test for team agreement for team helping produced a mean rwg for help-giving of 0.82, with ICC(1) and ICC(2) estimates of 0.26 and 0.61, respectively. Thus, we aggregated the individual-level responses to the team level.

Control Variables. As the new venture teams age, size, education level and percentages of males may potentially influence team helping and TEP, as suggested by prior research (Yin et al., 2020; Boone et al., 2020; de Mol et al., 2020; Santos and Cardon, 2019), we controlled for these demographic variables in the following analysis. Similar to previous research, we took into account that team age is closely related to level of entrepreneurial experience and interaction of new venture teams, with experienced teams tending to experience more affective events. Thus, we counted the number of years the teams have been in place to calculate their ages. Upon predicting TEP, we controlled for team size in our analyses, as prior research reports an augmenting effect on passion diversity, and size affects the ways in which teams interact (Santos and Cardon, 2019). We thus

assessed team size by the number of the names reported by the team leaders on the consent form according to control sample heterogeneity. Moreover, past research shows that team gender make-up affects the process of forming and acting on entrepreneurial passion, as men tend to focus more on rational decisions and women on emotional ones. And there are significant gender differences in the sense of self and one's relationship with the outer world (Liu et al., 2020), with such differences potentially impinging upon team helping behaviours. Therefore, we controlled for the percentages of males in the teams. Finally, different educational levels can imply different member knowledge and skills and affect their cognition and emotions. We therefore controlled for the average level of education of the teams by measuring the number of years of post-high school education.

Insert Table 1 about here

4.3. Data analysis

Prior to the hypothesis testing, we took several steps to ensure reliability and validity. Our exploratory factor and reliability analyses clearly demonstrated the good reliability and validity of the constructs. Construct reliability was evaluated with Cronbach's α and composite reliability (CR) values. As shown in Table 1, the Cronbach's α values, which were found to range from 0.874 to 0.955, are above the recommended level of 0.70 (Nunnally, 1978) and the values of CR, which were found to range from 0.874 to 0.925, are also satisfactory (Fornell and Larcker, 1981). These results suggested that the reliability of the main constructs was acceptable.

Validity was assessed through confirmatory factor analysis (CFA). All items were found to load significantly on the corresponding latent construct with acceptable values of standardised factor loading (ranging from 0.580 to 0.910). Moreover, the results of the average variance extracted (AVE) estimates were found to range from 0.547 to 0.804, thus being higher than the 0.50 cut-off threshold. These results confirmed satisfactory convergent validity (Fornell and Larcker, 1981). The CFA of a four-factor model demonstrated that the measurement model fit the data well ($\chi2/df = 1.837$, CFI = 0.929, RMSEA = 0.087, IFI = 0.930, TLI = 0.906). In addition to the basic four-factor model, we also examined three alternative ones for the validation of overall model fit. The results of the four-factor CFA model showed a much better fit to the data than the other ones. Therefore, the results were found to have good discriminant validity. To eliminate any possible common method variance bias associated with self-reported surveys, a Harman single-factor test (un-rotated) was conducted with all relevant variables. No general factor was found to emerge, with the first (largest) factor accounting for only 26.086% of the total variance.

5. Results and analysis

5.1 Results

The descriptive statistics and interrelations are presented in Table 2. To assess the possibility of multicollinearity, we also calculated the variance inflation factors (VIFs) for all regression models. All VIF values in our model were found to be lower than 2, indicating no concerns of multicollinearity.

Insert Table 2 about here

Table 3 depicts the results of the regression analyses. In them, we split the TEP into two dimensions for testing. Models 1 and 3 were baseline models that contained only the control variables. Model 2 and 4 added explanatory variables to test the hypotheses. Team help-seeking was found to be significantly and positively related to intense positive feelings ($\beta = 0.441$, $p < 0.001$) and to the collective identity centrality of TEP ($\beta = 0.228$, $p < 0.05$). Thus, hypothesis 1 was found to be supported. Similarly, hypothesis 2 was supported, as team help-giving was found to be related to the positive effects in both shared positive feelings ($\beta = 0.257$, $p < 0.05$) and the collective identity centrality ($\beta = 0.446$, $p < 0.001$) of TEP. For hypothesis 3, the interaction term of help-seeking × help-giving was found to be significantly and positively related to intense positive feelings ($\beta = 0.362$, $p < 0.01$) in Model 2 ($R^2 = 0.322$, $R_{adj}^2 = 0.276$, $F = 7.056$, $p < 0.001$). And the collective identity centrality of TEP was found to be positively and significantly associated with help-seeking × help-giving ($\beta = 0.264$, $p < 0.05$) in Model 4 ($R^2 = 0.335$, $R_{adj}^2 = 0.290$, $F = 7.491$, $p < 0.001$). The results thus supported hypothesis 3. These results jointly suggest that the interaction between help-seeking and help-giving has an effect on TEP. The interaction between team help-seeking and -giving on two components of TEP is depicted in Figures 2 and 3.

Insert Table 3 about here

Insert Figure 2 about here

Insert Figure 3 about here

In order to visually display the interaction effect, we performed floodlighting analysis to carry out quantitative statistics through the Johnson-Neyman (J-N) analysis (Karpman, 1983). It should be noted that, as our focus was on the significant range of team help-seeking or -giving, we integrated

the two components of TEP to focus on the purpose of the analysis. Figure 4 shows the conditional effect of team help-seeking on TEP as a function of team help-giving. The effect of team help-seeking on TEP was found to lack significance when team help-seeking fell between 2.2874 and 4.6411. Figure 5 shows the conditional effect of team help-giving on TEP as a function of team help-seeking. Concerning help-giving, the threshold for significance was found to begin at a score of 3.9862. In general, the high level of team help-seeking and help-giving is thus conducive to TEP.

Insert Figure 4 about here

Insert Figure 5 about here

5.2. Supplementary analysis

As team-level emotions have a certain unpacking effect and in order to verify the robustness of our results, we divided the research sample into large and small teams according to the median number. The robust test results are shown in Table 4. Models 5 and 6 verified the relationship between team helping and TEP in large-scale teams. Models 7 and 8 verified the relationship between team helping and TEP in small-scale teams. It can be seen from Table 4 that the positive relationship of the interactions between team help-seeking and giving on TEP was still established, with the robustness test results being consistent with the original regression ones. The test indicates that, regardless of team size, the interaction between team help-seeking and -giving can reduce the unpacking of team emotions, thus promoting the emergence of TEP.

Insert Table 4 about here

However, it also can be seen from Table 4 that the influence of team help-seeking or -giving on the two components of TEP was not necessarily significant. This could have been because such influence is affected by team size. Thus, we performed a J-N analysis of the role played by team size in the relationship between team help-seeking/giving and TEP. As shown in Figure 6, the effect of team help-seeking on TEP was found to be significant when team size exceeds 3.1568. Simply put, team help-seeking in larger teams is more likely to promote TEP. Conversely, as shown in Figure 7, team help-giving was found to be more likely to promote TEP in small teams.

Insert Figure 6 about here

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Insert Figure 7 about here

In addition, the regression test showed that the team age control variable has a greater impact on TEP, so we further explored its influence on the relationship between team helping and TEP. We also performed a J-N analysis of the role played by team age in the relationship between team helping and TEP. As shown in Figure 8, the effect of the team helping on TEP is significant when team age is between 1.2612 and 2.8905.

Insert Figure 8 about here

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6. Discussion

6.1. Theoretical implications

Our focus on AET and TEP enabled us to glean novel insights into the role played by team helping in contributing to TEP. As work events are significant sources of emotions and passion, Grodal et al. (2015) argued that team helping, as a common and critical event, can elicit cognitive and emotional engagement, thereby facilitating the emergence of TEP towards a new venture team. In our study, importantly, team helping is shown to be a key emotional event that not only explains the formation of positive emotions but also reduces the negative ones associated with challenging events. Overall, these findings point out that team helping—as a combination of help-seeking and -giving events—is presented as an interactive antecedent of TEP, thus broadening the scope of AET to individual and team-based perspectives (Pollack et al., 2020).

First, our study enriches the application of AET to the study of TEP, enabling us to glean novel insights into the role played by team helping in the emergence of TEP. As suggested by AET (Weiss and Cropanzano, 1996), positive daily interactions, such as team helping behaviours, contribute to positive emotion fluctuations. Our study emphasises the importance of affective events of team helping (help-seeking and help-giving), which offers a new perspective by looking at entrepreneurial passion at the team level of analysis and extends the literature on TEP to team help. Similarly, the team helping literature emphasises that such behaviour can help new venture teams to develop positive cognition and emotional engagement (Grodal et al., 2015). In addition, Weiss and Cropanzano (1996) built on the observation that the relationship between affective events and response is not uniformly positive across studies. For example, Patzelt et al. (2021) speculated how to manage the negative emotions stemming from the failure of a start-up project. In contrast, our work provides some evidence that the occurrence of positive events not only strengthens the generation of positive emotions and drives a range of positive behaviours, but also effectively buffers the impact

of any negative events. For example, the team helping contribute to build an effective team identity and shared emotions of TEP, enabling the whole team to develop the strength to face failures and obstacles in entrepreneurship together. Therefore, team helping is a critical affective event suited to explain the emergence of TEP. Overall, building on AET, our study makes an important first step towards developing an affective events model suited to ensure the emergence of TEP.

Second, we highlight the interactions in AET; i.e., the interactions between team help-giving and -seeking, that contribute to an effective affective perspective, and how such interactions potentially influence TEP. Despite the strong commonality and importance of team help, relatively less attention has been paid to examining how social interaction, in terms of that between help-seeking and -giving, relates to a team's emotion. Most previous studies have focussed on only one aspect of help-seeking or -giving (Liu et al., 2020; Mueller and Kamdar, 2011). Specifically, most studies on help-giving have stressed the bright side of this behaviour as it emerges due to an individual's autonomous and discretionary desire to do favours (Fu et al., 2021). Help-giving behaviours could satisfy the help providers' personal needs and activate their intrinsic motivations, which is beneficial for general well-being (Toegel et al., 2013). Although previous studies focussed mainly on the effects of positive affect on help giving, they did not address help-giving as an indispensable event in a team that can also have an impact on the building of positive emotions. For instance, Lin et al.(2019) pointed out that positive affect has a positive effect on help-giving; Chuang et al. (2019) pointed out the inhibiting effect of help-giving on negative emotions. Given that help-giving behaviours promote job satisfaction, creativity, and more, our study explored team help-giving that results in TEP and is beneficial for a new venture team as a whole. In regard to the study of help-seeking, previous studies focussed more on the effects of help-seeking on behaviours and competency. For instance, Gray et al. (2020) reported that all types of proactive behaviours (including help-seeking) at the individual or team level relate positively to both the individual's and team's creativity; Mueller and Kamdar (2011) provided empirical evidence showing that higher levels of help-seeking behaviours are positively associated with an individual's creativity. Based on these ideas, we explored the relationship between team help-seeking and positive emotions.

However, in recent studies, scholars have paid much attention to the negative cognitive or affective costs directly triggered by help-giving and -seeking (Lanaj et al., 2016; Lanaj and Jennings, 2019). Based on resource allocation theory, Fu et al (2021) found that help-giving is negatively related to objective individual job performance. Lim et al. (2020) and Liu et al. (2021) pointed out that help-seeking in relation to problems can also bring about a lack of confidence in the ability of the team member and affect performance. Our study introduced and tested the idea of interaction between team help-seeking and -giving, rather than their separate discussion and consideration. We treated team help-seeking and giving as two separate but related behaviours. In addition to exploring the direct

effects of each on TEP, our findings further develop the stream of literature that highlights the importance of developing an interactive structure suited to align and fit help-seeking and -giving (Grodal et al., 2015). Our findings confirm that help-seeking and -giving interactively affect TEP. More generally, our study is among the first to show the interaction role played by help-seeking and help-giving in generating TEP in new venture teams. Based on past research examining how help-giving enforces help-seeking and innovation (Morales et al., 2020), we know that help-giving buffers teams against the negative effects of help-seeking events. Similarly, prior studies pointed out that help-seeking does not entail a response from help-providers (Hirst et al., 2016). But the motivation and initiative to seek help can also reduce the help providers' excessive focus on their own costs and resource consumption, causing them to instead focus more on the emergence of collective identity of TEP. Our findings provide new insights into the integrated effects of team help-seeking and -giving in the pursuit of TEP and AET.

Third, our study expands the empirical knowledge pertaining to the antecedents of TEP (Newman et al., 2021; Gray et al., 2020; Stenholm and Nielsen, 2019; Taggar et al., 2019). This is important because existing study has pointed out that TEP influences entrepreneurial creativity, information processing, and decision making, with positive effects on team entrepreneurial behaviours and performance (de Mol et al., 2020). And prior studies on entrepreneurial passion at the individual level reported high levels of entrepreneurial passion that show relatively little variance between entrepreneurs over time (Cardon et al., 2013), particularly in terms of the identity centrality of the domain of one's passion (Collewaert et al., 2016). Evidence suggests a convergence in passion over time (Uy et al., 2021); additionally, it is important to take shared identity centrality into consideration when drawing conclusions about the implications of TEP. Both the level of intensity of feelings and the identity centrality of the activity or the object of those feelings are important dimensions of passion (Taggar et al., 2019). Such previous research paid close attention to the intense positive feeling of entrepreneurial passion; however, our results show that positive feelings and identity centrality play an equally important role as two distinct dimensions of TEP. Jointly, TEP and team help interactions (seeking and giving) advance AET by positioning team dynamics better in the theoretical context.

6.2. Practical implications

Given the widespread interest in TEP, we expect the potential readership of this article to extend beyond scholars, to include entrepreneurs. The latter, as pioneers of new venture teams, could use our findings to develop TEP to enhance competitiveness. For example, it should be clear that TEP should not only focus on the establishment of shared intense positive emotions but also on that of a shared identity centrality (Cardon et al., 2017; de Mol et al., 2020). They may thus, want to be purposeful in

establishing the team's collective identity in the very early stages of venture formation through such activities as brainstorming in relation to the team members' expectations of the organisation, what they are individually most passionate about, and whether they want to pursue a collective identity. TEP is able to motivate a new venture team in its fight against entrepreneurial risks, and the identity centrality dimension gives it higher entrepreneurial resilience and persistence (Cardon and Kirk, 2015). In addition, based on this study, the identity consensus and emotional needs of team members should be aligned. It is possible to develop an effective TEP or start a business with a single intense positive feeling, but it is important to have a clear understanding of the identity centrality of the new venture team.

Although each new venture team has its own kind of team helping, our results point to the importance of interaction between help-seeking and -giving, especially in highly innovative and interdependent environments. Traditionally, reciprocity has emphasised the importance of team helping (Givi, 2021). Our study indicates that establishing an environment centred on help-seeking and -giving may be particularly beneficial in new venture teams; this is because the identity and emotional engagement that occurs in team helping interaction can reinforce TEP. Our study is also a reminder to entrepreneurs that help-giving alone is not enough to facilitate effective TEP and that they need to develop effective structures suited to promote help-seeking and the willingness to give help. For example, a new venture team could establish a team culture that provides both rewards and psychological safety, giving members the confidence to seek or give help.

6.3. Limitations and future research directions

Like any research project, our study does have some limitations. First, we only tested our hypotheses in the Chinese setting. In the context of current innovation and entrepreneurship, this study should have been conducted more in line with Chinese measurement tools and scales, but those it used were developed in Western contexts. There may thus have been some degree of measurement bias in relation to the setting. Future research may consider using scientific methods to develop new measurement tools. In addition, as we employed a cross-sectional design, future longitudinal studies may reveal more intriguing insights and provide more solid evidence.

Second, our results primarily rely on subjective evaluations of team variables, which raises concerns of common method bias. As noted earlier, we implemented both procedural and statistical approaches in order to improve the reliability and validity of retrospective reports. We therefore, believe that common method bias was not a severe problem in our study. Nonetheless, it would be important for subsequent studies to use multiple informants and to obtain objective data to validate our results.

The third limitation pertains to TEP. Our study only focussed on the positive impact of a team's

entrepreneurial passion; however, TEP itself does have certain negative impacts. For example, excessive TEP may lead new venture teams to act or think about problems according to their own ideas and ignore issues of feasibility (Cardon et al., 2009), which would adversely affect the growth of entrepreneurship. Future research could explore the reasonable boundaries of TEP, and how to ensure that those team elements will not generate passive TEP. Additionally, based on the supplemental analysis in our study, future research also could further explore the role played by team age and size in TEP.

Forth, as team-level phenomena comprise both mean- and dispersion-levels, the impact of team-level concepts can only truly be understood if both dimensions are considered (Harper, 2008). However, our study mainly focussed on the level or extent of TEP, treating it as a shared property with mean values of shared intense positive feelings and identity centrality. Future research interest should thus not only focus on the strength of TEP, but also on any overlaps and diversity of the passions experienced across individual team members (Drnovsek et al., 2016), which may raise different questions.

Finally, although we have provided supplement analyses of the team unpacking-effect and of those of two control variables—team size and age—there is scope for a future in-depth exploration of the differential effects of team size on help-seeking and -giving, as well as for a further parsing of the effects of the control variables on TEP in order to understand any characteristic conditions that are more conducive to the emergence of TEP.

7. Conclusion

This study addressed the question of how TEP emerges in new venture teams. We investigated the antecedent role played by team help. Specifically, we focussed on the two separate aspects of team help: help-seeking and -giving. Beyond the direct links between help-seeking/giving and TEP, we highlighted the importance of the interaction between team help-seeking and -giving in developing TEP. We hope that our study will stimulate further empirical research on TEP.

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Table 1. Measures and confirmatory factor analysis results

Items	Factor Loading
Team entrepreneurial passion (TEP)	
● *Shared positive feelings* *(Cronbach's α=0.932, CRs=0.923, AVE=0.547)*	
For us, it is exciting to figure out new ways to satisfy unmet market needs that can be commercialised.	0.823
Searching for new ideas for the offer of products/services is enjoyable for our team.	0.752
We, as a team, are motivated to figure out how to improve existing products/services.	0.716
Scanning the environment for new opportunities excites our team.	0.740
Establishing a new company excites us.	0.842
Owning our own company energises our team.	0.822
For our team, nurturing a new business through its emerging success is enjoyable.	0.736
We really like finding the right people to market our products/services.	0.746
Assembling the right people to work for our business is exciting.	0.580
Pushing our employees and our team to make our company better motivates us.	0.591
● *Collective identity centrality* *(Cronbach's α=0.874, CRs=0.837, AVE=0.632)*	
Inventing new solutions to problems is an important part of who we are as a team.	0.810
Being the founder of a business is an important part of who we are.	0.719
Nurturing and growing companies is an important part of who we are as a team.	0.850
Team Help-seeking *(Cronbach's α=0.955, CRs=0.925, AVE=0.804)*	
I often approach team members for advice when I don't understand how to solve an entrepreneurial problem.	0.910
I frequently ask other members for assistance in creative problem-solving.	0.890
I often request help from members when struggling to solve problems creatively.	0.889
Team Help-giving *(Cronbach's α=0.908, CRs=0.901, AVE=0.752)*	
I assist members with difficult problems solving assignments, even when assistance is not directly requested.	0.884
I take on extra responsibilities in order to help members to solve the entrepreneurial strategy-decision problem.	0.830
I go out of my way to help teammates refine their creative ideas.	0.886

Extraction Method: Principal Component Analysis

Rotation Method: Varimax with Kaiser Normalisation

Table 2. Descriptive statistics and correlation matrix

	Mean	SD	1	2	3	4	5	6	7	8
Independent variable										
1 Team help-seeking	4.55	1.25	1							
2 Help-giving	5.16	0.80	0.396**	1						
Dependent variable										
3 TEP-Shared positive feeling	5.02	0.74	0.424**	0.198*	1					
4 TEP-Collective identity centralities	5.15	0.82	0.370**	0.413**	0.501*	1				
Controls										
5 Firm Age	2.41	0.93	0.160	0.204*	0.302**	0.379**	1			
6 % Males	0.62	0.31	0.171	0.014	0.138	0.082	0.225*	1		
7 Team Size	4.35	0.96	0.301*	0.192*	-0.010	0.145	0.061	-0.052	1	
8 Educational Level	3.40	0.95	0.083	-0.005	-0.057	-0.023	-0.128	0.022	0.223*	1

Note: ** Correlation is significant at the 0.01 level (2-tailed); * Correlation is significant at the 0.05 level (2-tailed).

Table 3. The regression results

Variables	Team Entrepreneurial Passion (TEP)			
	Shared Positive Feelings		Collective Identity Centrality	
	Model 1	Model 2	Model 3	Model 4
Firm age	0.285** (0.004)	0.196* (0.026)	0.370*** (0.000)	0.265** (0.003)
% Males in the team	0.073 (0.441)	0.024 (0.778)	0.005 (0.952)	-0.010 (0.903)
Team size	-0.019 (0.838)	-0.107 (0.232)	0.123 (0.183)	0.040 (0.653)
Educational level (average)	-0.018 (0.850)	-0.014 (0.864)	-0.003 (0.973)	0.008 (0.927)
Team Help-seeking		0.441*** (0.000)		0.228* (0.015)
Team Help-giving		0.257* (0.035)		0.446*** (0.000)
Team Help-seeking*Help-giving		0.362** (0.002)		0.264* (0.024)
R^2	0.097	0.322	0.159	0.335
Adj R^2	0.064	0.276	0.127	0.290
F	2.883*	7.056***	5.042**	7.491***

Note: *p<0.05 level; ** p<0.01 level; ***p <0.001 level

Table 4. Robust test: the interactive help-seeking and help-giving on TEP (divided by team size)

	Larger teams		Smaller teams	
	Model 5	Model 6	Model 7	Model 8
	TEP		TEP	
	Shared positive feelings	Collective identity centrality	Shared positive feelings	Collective identity centrality
Firm age	0.101	0.205	.262*	.286*
% Males in the team	-0.005	0.118	.035	-.071
Team size	0.094	0.140	.091	.189
Educational level (average)	-0.170	-0.035	.043	-.004
Team Help-seeking	0.710*	0.611***	.352**	.072
Team Help-giving	0.183	0.254*	.310*	.563**
Team Help-seeking*Help-giving	0.093*	0.075*	.478**	.360*
R2	0.560	0.622	0.311	0.361
Adj R2	0.472	0.546	0.231	0.287
F	6.370***	8.216***	3.925**	4.920***

Note: *$p<0.05$ level; ** $p<0.01$ level; ***$p<0.001$ level

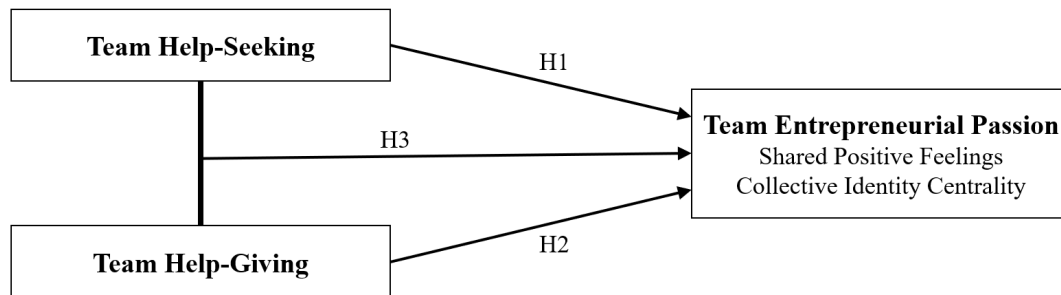**Figure 1**. Conceptual Model

Figure 2. The interactive effects of team help-seeking and giving to shared positive feelings of TEP
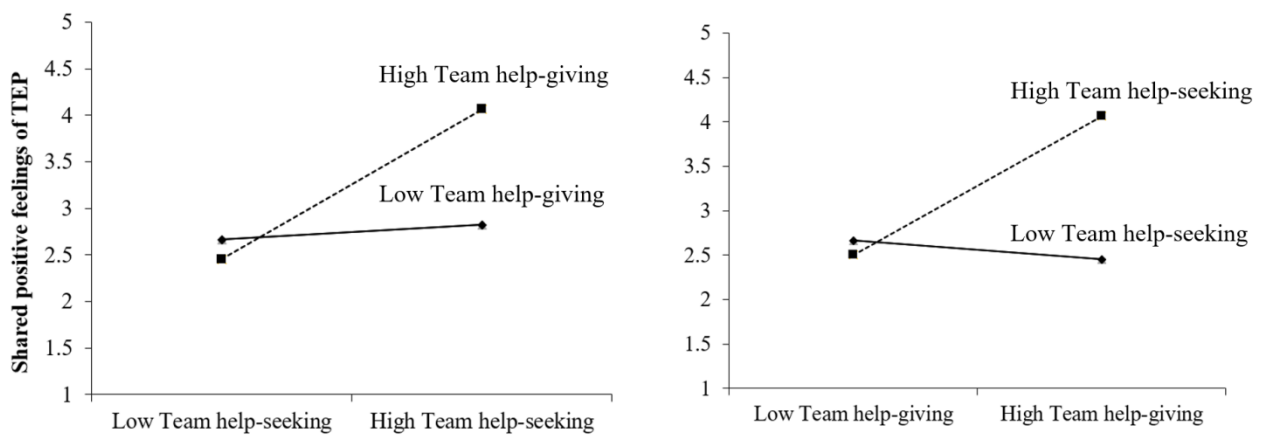

Figure 3. The interactive effects of team help-seeking and giving to collective identity centrality of TEP
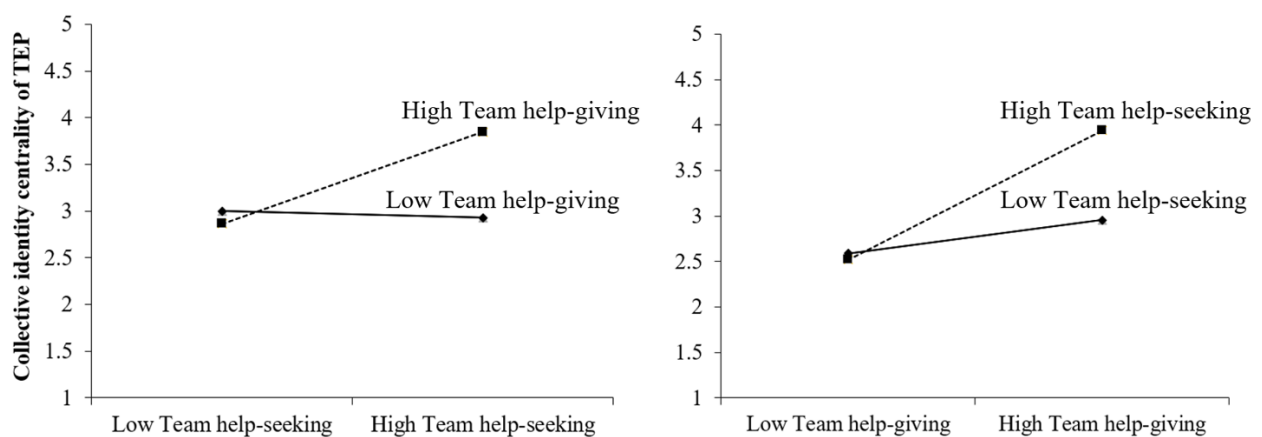
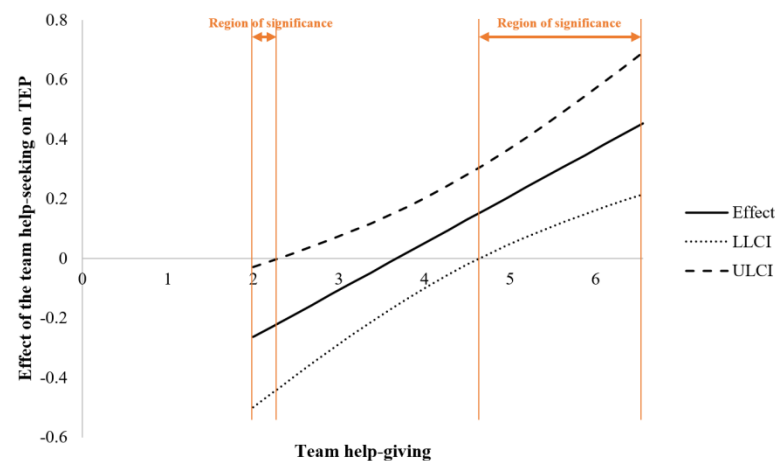**Figure 4.** The conditional effect of team help-seeking on TEP as a function of team help-giving

Figure 5. The conditional effect of team help-giving on TEP as a function of team help-seeking

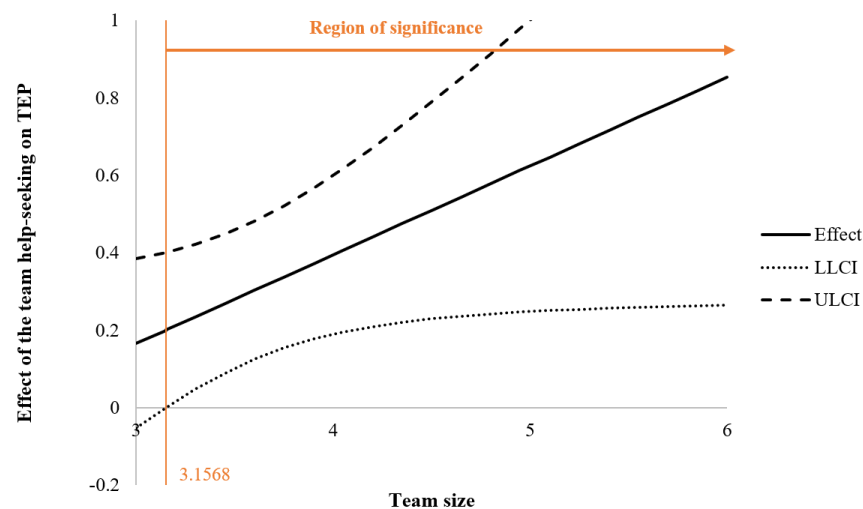**Figure 6**. The conditional effect of team help-seeking on TEP as a function of team size

Figure 7. The conditional effect of team help-giving on TEP as a function of team size
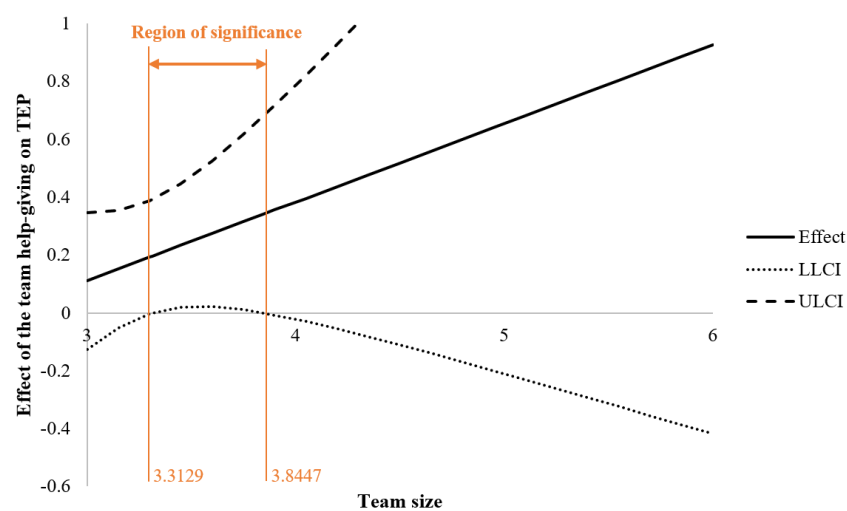

Figure 8. The conditional effect of team helping on TEP as a function of team age