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The big passion play in new venture creation: New insights from a moderated mediation model

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ABSTRACT

Research increasingly highlights that more nascent entrepreneurs than once thought, even those passionate about founding a new venture, end up not starting a new business because of the vast challenges. This study provides new insights into how and when passionate nascent founders actually engage in new venture creation behavior. Applying a conditional moderated mediation analysis to a sample of 493 Belgian nascent entrepreneurs, we find that passionate nascent founders develop strategic action plans to reach their desired complex goal of starting a new venture. Our results demonstrate that this deliberate strategic practice of action planning, which functions as a mediating mechanism, is contingent on nascent entrepreneurs' self-efficacy and risk-taking propensity. The results show that when passionate nascent founders feel sufficiently knowledgeable and skilled to start a new business, they will develop significantly more specific action plans to engage in new venture creation behavior. Finally, our results show that the willingness to take entrepreneurial risks moderates the extent to which action plans to start up will be effectively converted into actual engagement in new venture creation behavior. These findings have new theoretical and practical implications that contribute to expanding the literature on the complexity of the big passion play in new venture creation.

1. Introduction

Scholars traditionally have relied on entrepreneurial intentions models to explain how and when new ventures are created,[1] which remains one of the core discussions in entrepreneurship because of the paramount contribution of new firms to economic growth (Batista-Canino et al., 2024; Maes et al., 2014; Shepherd et al., 2021; Shirokova et al., 2016). These works theorize that an individual's intent to start a new business, which can be measured quite easily, directly determines actual new venture creation behavior best, which is notoriously difficult to observe and study as it relates to the undertaking of complex and uncertain new firm gestation activities by nascent entrepreneurs (i.e., not readily detectable forthcoming entrepreneurs who are actively trying to start a new business) (Bogatyreva et al., 2022; Emami et al., 2023; Koumbarakis & Volery, 2023). However, recent studies have revealed that more startup intentions than thought and theorized hitherto do not translate into new venture creation (Esfandiar et al., 2019; Gieure et al., 2020; Neneh, 2019). Indeed, other factors are involved, since the literature increasingly demonstrates that many nascent entrepreneurs drop out and do not eventually start a new business as they, because of the complexity and uncertainty, do not follow up on their intended new firm gestation activities (Bogatyreva et al., 2019; Bort et al., 2023; Gieure et al., 2020; Ivanova & Tornikoski, 2022; Roelandt et al., 2023; Shirokova et al., 2016).

While external factors, such as country-specific institutional components (e.g., regulatory barriers, access to financing, culture, etc.), provide an important explanation for this phenomenon, particularly entrepreneurial passion (EP) scholars have entered this topical debate to shed new light on this (see Urbano et al., 2019). Based on an identity-based rationale, these studies these studies put forward and emphasize that one's entrepreneurial founding passion (EPf) can be a decisive and necessary distinct individual-level motivational factor that provides nascent entrepreneurs the needed fuel and fire to effectively overcome the complex challenges of new venture creation, which

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[1] These existing works are traditionally rooted in models that draw on the theory of planned behavior, the entrepreneurial event model, or social cognitive (career) theory (Liguori et al., 2018).

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traditionally inhibits many from remaining engaged in new venture creation behavior (Cardon et al., 2009; Murnieks et al., 2020; Riar et al., 2023). But although a nascent entrepreneur's founding passion certainly may be a necessary element, this intuitively appealing reasoning neglects the sheer complexity of the big passion play in new venture creation behavior. Stated differently, having a founding passion cannot be a sufficient factor in creating a new venture, as the passion literature increasingly reasons that there are other, indirect factors at play in this relationship that require further study (Newman et al., 2021; Riar et al., 2023).

However, to date only a handful of scholars have empirically studied the role of EP in new venture creation behavior (Li et al., 2020; Qian et al., 2022). The few published works are limited by their reliance on sterile student samples from very specific cultural contexts – where EP may be experienced differently – and by a marked lack of clear differentiation between the distinct passion domains (i.e., inventing, founding, developing) relevant to new venture creation behavior (Cardon et al., 2013). More importantly, the underlying mechanisms through which a nascent entrepreneur's founding passion translates into new venture creation behavior, as well as the contingencies that moderate this, remain largely unexplored. Overall, research thus far has been unable to fully explore the complexity of the big passion play in new venture creation behavior. This signals a central knowledge gap—namely an acute lack of knowledge on the indirect factors that determine how and when a nascent entrepreneur's founding passion effectively translates into new venture creation behavior (Newman et al., 2021; Riar et al., 2023).

The present study aimed to provide new insights into the big passion play by unraveling *how* and *when* passionate nascent founders actually engage in new venture creation behavior. In this article, we first specifically introduce and examine the mediating role of action planning, which refers to the strategic practice of deliberate and specific plan making on when, where, and how one wants to attain certain complex envisioned behavioral actions, like undertaking new firm gestation activities (Carraro & Gaudreau, 2013; Gollwitzer, 1999). While knowledge of the emergence of action planning in nascent entrepreneurship remains scanty, studies from other domains (e.g., job search, health, green purchase behavior) have demonstrated the importance of this practice as a facilitating factor to effectively pursue and attain a variety of challenging behavioral actions (McWilliams et al., 2019; van Gelderen et al., 2018; Zhou et al., 2015). The rationale here is that complicated behavioral actions need to be strategically and specifically planned because a motivation alone, even a passionate one, will not suffice to successfully reach a desired complex outcome. By developing strategic action plans to startup, action planning may stimulate a distinct motivation, like a passion for founding, to effectively lead to complex new venture creation behavior. This is because action planning, but not motivation, can directly determine success by facilitating dealing with intricate challenges and uncertainties that in the case of new venture creation, typically inhibit passionate nascent founders from starting up (Rodger et al., 2023; van Gelderen et al., 2018). We dive deeper into the big passion play and take a contingent perspective on the mediating role of action planning by considering the moderating influences of entrepreneurial self-efficacy and risk-taking propensity. These contingencies have been suggested to be vital enhancing factors, but when they can strengthen actual engagement in new venture creation behavior remains insufficiently understood (Brachert et al., 2020; Newman et al., 2019).

By applying a moderated mediation analysis on a unique sample of 493 Belgian nascent entrepreneurs, we demonstrate that passionate nascent founders develop strategic action plans to attain their desired new venture. By showing that one's founding passion significantly determines the development of deliberate and specific action plans for a startup, our results suggest that a nascent entrepreneur's founding passion is a necessary but insufficient motivational factor in new venture creation. Indeed, our findings reveal that the strategic practice of action planning functions as an underlying mechanism that fosters the translation of a distinct motivation, like a passion for founding, into new venture creation behavior. We next explore the complexity of the big passion play even further, presenting results indicating that the degree of action planning is significantly contingent on a nascent entrepreneur's self-efficacy and risk-taking propensity. These results show that when passionate nascent founders feel sufficiently knowledgeable and skilled to start a new firm, they will develop significantly more specific action plans to start a new venture. Finally, our results show that one's willingness to take entrepreneurial risks moderates the extent to which action plans for a startup will be effectively converted into new venture creation behavior.

This study's findings make several new contributions to the literature. First, we advance theorization on the drivers of new venture creation by providing a new identity-based understanding of the vital role of nascent entrepreneurs' founding passion in new firm formation. With this, we answer recent calls for new insights that go beyond the generic study of intentions that has dominated the new venture creation literature for years (Batista-Canino et al., 2024; Shepherd et al., 2021; Shirokova et al., 2016). Second, our findings contribute to the entrepreneurial passion literature by revealing the mediating role of action planning in the big passion play in new venture creation, a theoretical and empirical understanding of which remains poor (Cardon et al., 2013; Newman et al., 2021; Riar et al., 2023). These new findings also contribute to the action planning literature by shedding new light on the emergence of this strategic practice in nascent entrepreneurship, our understanding of which is still in its infancy (Asenkerschbaumer et al., 2023; van Gelderen et al., 2018). Finally, this study contributes to the entrepreneurial self-efficacy and risk literature in entrepreneurship by providing new knowledge regarding when the contingent effects of entrepreneurial self-efficacy and risk-taking propensity strengthen new venture creation, which to date are insufficiently understood (Brachert et al., 2020; Newman et al., 2019). Taken together, our findings substantially deepen our understanding of passionate founders in nascent entrepreneurship by providing novel compelling insights into *how* and *when* the big passion play unfolds in new venture creation.

2. Theoretical background and hypotheses development

2.1. Entrepreneurial founding passion and new venture creation behavior

EP has been conceptualized as a fundamental motivational driver that can provide the necessary fire to overcome entrepreneurial challenges (Cardon et al., 2009; Murnieks et al., 2014, 2020). Scholars theoretically differentiate EP from other related affect, motivational, or cognition constructs in entrepreneurship by drawing from two prevailing frameworks. While Vallerand et al.'s (2003) more general dualistic model focuses on two types of obsessive and harmonious passion, Cardon et al.'s (2009; 2013) identity-based conceptualization is target-specific and centers on how entrepreneurs' passion for different entrepreneurial activities can affect various behavioral outcomes (Murnieks et al., 2020). Given the purpose of this study, we followed this identity-based rationale, in which three key assertions stand central. According to Cardon et al. (2013), EP involves experiencing consciously accessible intense positive feelings by engaging in entrepreneurial activities that are meaningful and salient to the individual's self-identity with regard to entrepreneurship. These intense positive feelings and identity centrality aspects are directed toward three specific domains—EP for inventing, founding, and developing—that mirror different stages in entrepreneurship.

While passion for inventing in the tenets of identity-based EP is geared toward activities related to prototyping and identifying new opportunities *before* a venture is created, passion for developing corresponds to the growth and expansion phase of a venture *after* founding. Given the focus of this study on effectively creating a new venture, having a founding passion (EPf) has been suggested to be of essential importance because it is specifically targeted at activities aimed at

assembling the required resources (e.g., financial, human, material, nonmaterial) to create a new business (Adomako & Ahsan, 2022). This means that nascent entrepreneurs with a founding passion will have a strong motivational desire to actually start their own venture (Zollo et al., 2020). Such individuals thus have a passionate drive to engage in activities that center on bringing together the necessary resources to effectively establish a new firm. As such, having a founding passion has been considered crucial for nascent entrepreneurs, as it can provide them the motivational fire and necessary fuel to engage in the challenging activities surrounding the gestation of a new firm and, more importantly, to not abandon this new venture creation behavior (Murnieks et al., 2014).

To date, however, only a handful of scholars have empirically studied EP in relation to new venture creation behavior (Li et al., 2020; Qian et al., 2022). Aside from leaving the underlying factors *(how)* and contingencies *(when)* that affect this association largely unexplored, these few studies have several important limitations that crucially limit our knowledge of the big passion play in new venture creation behavior. Hitherto, all of our understanding of this comes from student samples, relatively modest in size, from very specific geographical contexts (i.e., China and North America). The use of such sterile samples, rather than general population samples of actual nascent entrepreneurs, has been increasingly called into question owing to the vocational biases and generalizability issues associated with student data (Kautonen et al., 2015). Also, EP's intense positive feelings and identity centrality are fundamentally culturally determined—meaning that EP is experienced quite differently in Asian and Western cultures—which further limits our current knowledge (Neneh, 2020). Finally, extant insights thus far have been limited by not conceptually demarcating the different passion domains adequately and clearly as recommended by Cardon et al. (2013). This highlights the need to further explore this association, along with specifically examining the largely unexplored indirect factors that are at play in the big passion play in new venture creation.

To create a new venture, specifically a nascent entrepreneur's founding passion can be expected to be important to effectively engage in new venture creation behavior. This is because this passion domain mobilizes the necessary energy and can simulate nascent entrepreneurs to persist through the challenges and obstacles involved in gathering the resources needed to start a new venture (Biraglia & Kadile, 2017). In light of the uncertainty involved in starting a new venture, EPf can lead to a narrow focus on engaging in new venture creation behavior, as the strong desire to actually found a new firm can be a major motivator for nascent entrepreneurs to do so effectively, despite the substantial challenges that typically hinder business creation (Neneh, 2020). Indeed, following identity-based EP reasoning, the dynamic behind this is that EPf can motivate nascent entrepreneurs to engage in challenging new firm gestation activities, because this provides intense positive feelings that are associated with their central identity as the founder of a new venture (Cardon et al., 2013). What this means is that nascent entrepreneurs with a founding passion have a strong motivational drive to act on those experienced intense positive feelings, as engagement in such founding activities bolsters one's entrepreneurial identity (Murnieks et al., 2014). Therefore, based on the above, we propose the following hypothesis.

H1. Entrepreneurial passion for founding has a positive effect on new venture creation behavior.

2.2. The mediating role of action planning

Although a nascent entrepreneur's founding passion may constitute a necessary element, the literature increasingly emphasizes that this distinct motivational element is not a sufficient factor in new venture creation, as even many passionate nascent founders abandon their startup endeavors (Newman et al., 2021; Riar et al., 2023). In fact, different indirect factors at play in the big passion play influence how passionate nascent founders effectively engage in highly challenging and uncertain new firm gestation actions that need to be undertaken at startup. However, our understanding of these underlying mechanisms remains incomplete.

In particular, the strategic practice of action planning, a specific cognitive crystalized strategic element in the broader implementation intentions literature, can provide critical insights into this relationship (Carraro & Gaudreau, 2013; Gollwitzer, 1999). While the effect of action planning has been studied mostly in other domains (e.g., job search, health, green purchase behaviors), scholars posit that actions, especially complex ones like new venture creation behavior, need to be strategically planned to be successful (Churchill & Jessop, 2010; Martijn et al., 2008; McWilliams et al., 2019; Tawde et al., 2023; Zhou et al., 2015). As conceptualized by Gollwitzer (1993, 1999), action planning creates commitment to desired behavior and encompasses prospectively specifying the details of when, where, and how to actually act on a specific motivation that an individual intends to effectively attain (Achtziger & Gollwitzer, 2018; Gollwitzer, 1996). Action planning concerns the development of concrete and specific action plans that stipulate in detail when, where, and how a desired complex behavior will be performed (Gollwitzer, 1999; Rodger et al., 2023). Developing such a detailed plan for action reduces the uncertainty and complexity of desired behavior that one wants to attain (Gollwitzer & Sheeran, 2006; Martijn et al., 2008).

Although knowledge of action planning's antecedents in the case of nascent entrepreneurship remains sparse, the study of van Gelderen et al. (2018) is one of the few to provide the important insight that having entrepreneurial goal intentions can be considered a key determinant of action planning. They draw on Gollwitzer's (1993; 1999) action phase rationale, which theorizes that action planning mediates the goal intention–behavior relationship, meaning that a goal that one is motivated for to pursue is associated with developing action plans to attain complex behavior. Van Gelderen et al. (2018) reported that individuals with strong entrepreneurial goal intentions subsequently form action plans as they need to think of a strategy to achieve their desired goal-striving. Action planning is a strategic practice that can protect individuals' goal intentions against difficult challenges encountered that can lead one to throw in the towel (Carraro & Gaudreau, 2013). Goal intentions are conceptualized as particular motivations to perform actions, meaning that intended goals are cognitive representations of outcomes that individuals desire (Asenkerschbaumer et al., 2023; van Gelderen et al., 2018). A nascent entrepreneur's passion for founding a new venture is a specific intended entrepreneurial goal that one must have a distinct motivation to pursue. In line with the above, extensive meta-analytic evidence from other domains also has established that action planning functions as a mediator to ensure that a particular motivation, like a passion for founding, can be successfully translated in actual behavior (Carraro & Gaudreau, 2013).

In most existing studies, action planning is induced (e.g., laboratory or field studies) by instructing respondents to form action plans following a goal intention (Prestwich et al., 2015). However, in entrepreneurship, scholars posit that nascent entrepreneurs will much rather self-generate such action plans, as they emerge from a strong conscious and specific goal intention, such as one's entrepreneurial passion to found a new venture (Asenkerschbaumer et al., 2023). Following this, because new venture creation behavior involves different complex and uncertain new firm gestation actions that need to be performed, we therefore expect that individuals with a high passion for founding will deliberately plan the actions that they need to undertake to launch a new venture. This suggests that a strong founding passion can drive the formation of action planning. Individuals who are passionate about founding a new venture experience intense positive feelings associated with their entrepreneurial identity of being a nascent founder (Cardon et al., 2013). This strong motivational desire makes them narrowly focused on starting their own new business (Zollo et al., 2020). Passionate nascent founders would be expected to develop action plans

to ultimately launch their own new venture. This is because such action plans give them a specified "game plan" on when, where and how to act on the many obstacles in new venture creation behavior that passionate nascent founders will encounter and that cause many to even abandon their startup endeavor (Roelandt et al., 2023; van Gelderen et al., 2015).

For example, this is congruent with what athletes, such as passionate marathon runners, do to reduce the uncertainty and complexity of the challenges ahead (Carraro & Gaudreau, 2013). Before their start, they plan their actions regarding when, where, and how to deal with the difficulties that they may face during the race. Transferring this analogy to new venture creation, this means that, for example, if a passionate nascent founder needs to obtain funding (i.e., one of several firm gestation activities), then action planning for this may be formulated as follows: "I will attend the upcoming network event X to specifically approach VC's Y and Z. As soon as they are alone, I will approach them, introduce myself, and pitch my new venture to try to obtain the required startup resources."

Action planning can have important outcomes for new venture creation behavior. While other social sciences have a rich evidence base regarding the stimulating effects of action planning on effectively taking behavioral actions (Malaguti et al., 2020; Orbell & Sheeran, 2000), empirical insights into this topic in the field of entrepreneurship remain scarce (van Gelderen et al., 2018). However, existing findings from other domains can be relevant to new venture creation behavior. For example, Van Hooft et al. (2005) demonstrated that action planning robustly predicts and stimulates highly complex and multifaceted behavior such as job seeking. Tawde et al. (2023) reported a positive influence on green purchase behavior. On the other hand, findings from a meta-analysis reported by Gollwitzer and Sheeran (2006) show that because of the deliberate planning of when, where and how to undertake actions, the development of action plans facilitates to overcome obstacles that are relevant to the context of new venture creation behavior. This includes losing sight of desired outcomes under uncertainty or in the event of adversity or failing to disengage from a course of action if superior alternatives are available. Thus, based on the foregoing, we expect that action planning can stimulate effective engagement in complex and uncertain new venture creation behavior. On the basis of this, we hypothesize.

H2. The relationship between entrepreneurial passion for founding and new venture creation behavior is positively mediated by action planning.

2.3. The moderating role of entrepreneurial self-efficacy

Entrepreneurial self-efficacy refers to an individual's belief that he or she possesses the necessary entrepreneurial knowledge and skills—and thus feels capable—to successfully perform tasks associated with starting a new venture (Bohlayer & Gielnik, 2023; McGee & Peterson, 2019). The concept itself emanates from the broader construct of self-efficacy, which is central to disciplines ranging from business to labor economics (Bandura, 2012). It is important to note that although some scholars have explored general self-efficacy (i.e., general beliefs about one's skills to perform tasks in the future of different kinds), the scholarly consensus holds that self-efficacy needs to be domain-specific (McGee et al., 2009). In this regard, entrepreneurial self-efficacy has been identified as a crucial factor in new venture creation (Chen et al., 1998; Newman et al., 2019). In particular, studies are increasingly conceptualizing entrepreneurial self-efficacy as a contingent factor and suggesting that *when* individuals believe they possess the necessary entrepreneurial knowledge and skills to perform entrepreneurial tasks associated with new venture creation, this can be a powerful factor enhancing the planning of actions to start a new venture (Ahlin et al., 2014; Kickul et al., 2009; Newman et al., 2019; Prabhu et al., 2012).

Nascent entrepreneurs with a passion for founding a new business face a multitude of challenges in preparing the startup activities that need to be undertaken (e.g., developing a business model, obtaining funding, or acquiring the necessary infrastructure). When they do not feel sufficiently knowledgeable and skilled to do so, this can inhibit them from planning actions to engage in new firm gestation activities (Cardon et al., 2013; Shepherd et al., 2021). On the other hand, *when* individuals believe that they possess the required knowledge and skills to start a new firm and have a passion to found a new venture, they can be expected to action plans for when, where, and how to assemble the necessary resources for the new firm gestation activities needed for a startup (van Gelderen et al., 2018). This is because when passionate nascent founders have high entrepreneurial self-efficacy, this context can stimulate their action planning as they become more aware of the many challenges and tasks that need to be tackled for new venture creation (Kickul et al., 2009; Newman et al., 2019). This can contribute to attaining their ultimate outcome of launching their own new business, which such individuals desire so passionately (Cardon et al., 2013; van Gelderen et al., 2018). On the basis of this, we hypothesize that.

H3. Entrepreneurial self-efficacy moderates the effect of entrepreneurial passion for founding on action planning, such that this positive relationship is stronger when a passionate nascent founder believes they possess the necessary knowledge and skills to start a new business.

2.4. The moderating role of risk-taking propensity

Individuals' risk-taking propensity traditionally has been suggested to be an important contextual factor in new firm formation, as it involves the evaluation of risks associated with the uncertainty of engaging in new venture creation behavior (Caliendo et al., 2014). Knight (1921) highlighted this in his seminal work, noting that nascent entrepreneurs, unlike employees, need to be willing to make risky decisions under uncertainty and to risk losing considerable resources. Yet studies have shown a wide variation among nascent entrepreneurs' propensity toward risk-taking, and in particular, that one's risk-taking propensity can exert a powerful moderating influence on various key factors related to taking entrepreneurial action (Block et al., 2015; Caliendo et al., 2009; Nieβ & Biemann, 2014).

Nonetheless, empirical insights into the contingent effect of entrepreneurial risk-taking propensity with regard to the association between entrepreneurial passion for founding and new venture creation behavior, remain extremely scarce (Zollo et al., 2020). This poses an important knowledge lacuna, as the propensity toward taking entrepreneurial risks provides a critical contextual explanation of why even individuals with a passion for founding frequently abandon their startup endeavors in the end. In addition, since regulations and informal institutional environments strongly determine—by governing uncertainty—when individuals are willing to take entrepreneurial risks, the resulting new insights can provide important novel information on the phenomenon of why many passionate nascent founders end up not pursuing new venture creation behavior (Boudreaux et al., 2019; Colson et al., 2025; Urbano et al., 2019). Based on the foregoing, we expect that *when* individuals have a higher risk-taking propensity, this willingness to take entrepreneurial risks will be vital and at play to convert action plans of passionate nascent founders into actual engagement in new venture creation behavior. What this means is that when passionate nascent founders who have developed action plans to start a new venture have a high propensity to take entrepreneurial risks, this can strengthen the extent to which action plans—which stipulate when, where and how to engage in new venture creation behavior—will effectively lead to engaging in new firm gestation activities.

The rationale for this is that effectively performing different necessary gestation activities for a startup, such as assembling and acquiring an abundance of financial and nonfinancial resources, is fraught with uncertainty, which typically hinders or prevents taking actual entrepreneurial action to start (McMullen & Shepherd, 2006; Robinson & Marino, 2015). Such uncertainty can highly impede passionate nascent

founders who have developed action plans to launch a new venture to effectively convert these into engaging in actual new venture creation behavior (Brachert et al., 2017; Cho & Orazem, 2021; Shepherd et al., 2021). This is because the high uncertainty of challenging and complex new firm gestation activities that need to be performed—activities in which passionate nascent founders risk suffering considerable losses—induces critical doubt. This not only can produce an acute hesitance to act on such action plans for a startup, but also can increase procrastination to execute action plans, which ultimately can lead to abandoning new venture creation behavior (Brachert et al., 2020; Caliendo et al., 2009). Taken together, when passionate nascent founders who have developed action plans for a startup possess a higher propensity to take entrepreneurial risks, they will be more likely than their more risk-averse counterparts to effectively act on those action plans to actually undertake such challenging new firm gestation activities, as this condition stimulates them to bear and overcome the uncertainty associated with performing new venture creation behavior. On the basis of this, we propose the following hypothesis.

H4. Risk-taking propensity moderates the effect of action planning on new venture creation behavior, such that this positive relationship is stronger when the propensity to take entrepreneurial risks is higher. See Fig. 1.

3. Methods

3.1. Sample

To study new venture creation behavior, scholars increasingly call to move away from the commonly used student or already existing (young) founder samples, as such data are prone to important methodologic limitations related to vocational, hindsight, or self-selection biases (Shepherd et al., 2021). However, the majority of empirical studies on new venture creation behavior published to date adhered to such sampling techniques, owing to the difficulty of collecting reliable data on this subject since forthcoming new founders (i.e., nascent entrepreneurs) are extremely difficult to identify from the general population (Asenkerschbaumer et al., 2023; Bogatyreva et al., 2019; Emami et al., 2023; Shirokova et al., 2016; Stappers & Andries, 2022). Although most recent extant works generally are cross-sectional in nature, another stream of studies on new venture creation relies on public data, predominantly from the GEM, GUESSS, WB, or PSED[2] databases (Bogatyreva et al., 2022; Koumbarakis & Volery, 2023). Except for the PSED, for which the most recent data release already is more than a decade old and limited to insights only from the United States, most of these survey data are not truly longitudinal by design, as new respondents are sampled in each wave (Bogatyreva et al., 2019). One of the biggest limitations to using such data sources is that scholars are confined to the predefined variables that are included, meaning that suggested new unexplored mechanisms cannot be studied (Shepherd et al., 2021).

To move knowledge forward, recent studies increasingly recommend studying new venture creation behavior of actual nascent entrepreneurs from the general working age population, as this provides a robust alternative to overcome the aforementioned shortcomings scholars face today (Roelandt et al., 2023; Shepherd et al., 2021; Stappers & Andries, 2022). Therefore, we collected data from Belgian nascent entrepreneurs, defined in line with the dominant literature as individuals who have been actively trying to start a new business in the previous months and whose endeavors cannot have already led to the creation of the envisioned firm (Reynolds, 2009). Because nascent entrepreneurs are one of the most difficult samples to reach and study in entrepreneurship, as they are not readily identifiable in the general population, we cooperated with a reputable Belgian news media outlet (Mediahuis). Through the shared contact lists of subscribers to newspapers Het Nieuwsblad and HBvL, we invited the Belgian working age population to participate voluntarily in a general study about entrepreneurship, which was deliberately framed so as to avoid disclosure of the main objective of this study. We did so to prevent biases and to avoid specifically attracting highly motivated (passionate) nascent entrepreneurs to participate. We also stressed the conciseness of the survey for the same reason (average time to complete, 14 min).

To identify nascent entrepreneurs, in line with recent works like Roelandt et al. (2023), we asked respondents (1) whether they currently are trying to start a new business, followed by (2) whether they have undertaken any active efforts in the past 6 months to start this new business. If respondents answered "yes" to these questions, they were able to participate in this study. By doing this, we immediately filtered out respondents who were not eligible to participate (e.g., already existing young founders). After eliminating incomplete data, dropouts, and participants who did not meet basic attention checks, a final unique sample of 493 Belgian nascent entrepreneurs was obtained. Table 1 summarizes the sample characteristics of the respondents in this study. Finally, we compared early and late respondents who participated after a reminder call to take the survey. No statistically significant differences in *t*-test results were found for the study's main variables, alleviating potential nonresponse bias concerns.

3.2. Measures

3.2.1. Entrepreneurial passion for founding

Congruent with previous works and in accordance with this study's focus, we specifically used the four items of Cardon et al.'s (2013) measurement instrument (see Appendix I in the supplementary material) that relate to the entrepreneurial passion for founding domain and recorded respondents' answers on a 7-point Likert scale (Newman et al., 2021). Thus, as recommended, we did not lump all 13 items of the scale of Cardon et al. (2013) together into an overall passion construct, as this would obfuscate important dynamics between the conceptually different domains of the entrepreneurial passion scale. The rationale for this is that the focus of this study was on studying new venture creation behavior, and only the founding domain is suited for this purpose, as recommended by Cardon et al. (2013).

To arrive at a final measurement, we followed the dominant approach in the literature and multiplied the three averaged intense positive feelings items of passion for founding with the related identity centrality item, as the interaction of these two conceptually distinct dimensions is a critical aspect of founding passion as formulated by Cardon et al. (2013). Table 1 shows that values can range between 1 and 49, with a mean value of 25.5. This finding is comparable with earlier studies (Adomako & Ahsan, 2022). Following studies such as Newman et al. (2021), values above the mean can be considered as indicating a high passion for founding a new venture. This corresponds with the finding of 42.60 % of nascent entrepreneurs with a high founding passion in our sample. Cronbach's alpha for the 3 intensely positive feelings items of passion for founding ($\alpha = 0.888$) shows high internal consistency.

3.2.2. New venture creation behavior

We followed the approach of scholars such as Kautonen et al. (2015), Neneh (2019), Shirokova et al. (2016), or Stappers and Andries (2022) to gauge new venture creation behavior by using a list of nine new firm gestation activities adapted from the GEM and PSED. The nine items (see Appendix I in the supplementary material) represent milestones in new venture creation and measure how many new firm gestation activities nascent entrepreneurs have completed (coded 1 if yes, 0 otherwise) completed.

[2] GEM: Global Entrepreneurship Monitor; GUESSS: Global University Entrepreneurial Spirit Students' Survey; WB: World Bank; PSED: Panel Study of Entrepreneurial Dynamics.

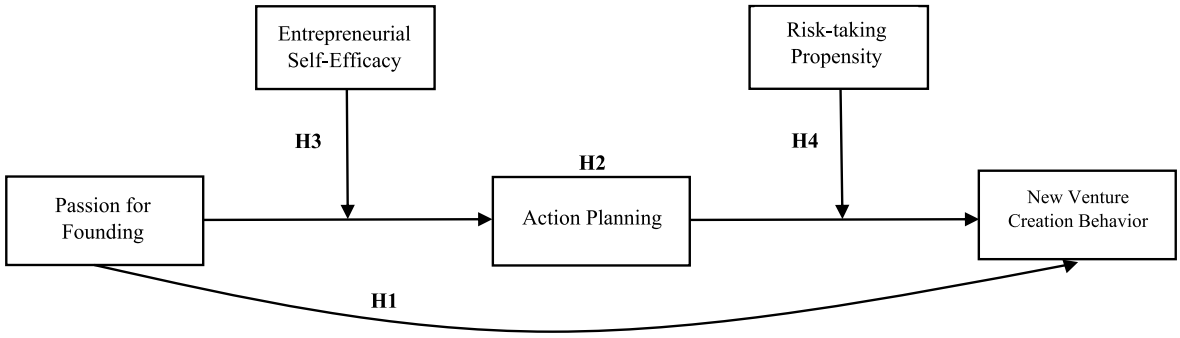

Fig. 1. Full research model.

Table 1
Means, standard deviations and pairwise correlations.

	Mean	SD	Min	Max	1	2	3	4	5	6	7	8	9	10
1. Entrepreneurial passion for founding	25.50	13.73	1	49	1									
2. Action planning	3.33	1.81	1	7	.518**	1								
3. New venture creation behavior	2.14	2.41	0	9	.487**	.645**	1							
4. Entrepreneurial self-efficacy	.69	.46	0	1	.348**	.368**	.295**	1						
5. Risk-taking propensity	4.44	1.45	1	7	.487**	.407**	.313**	.299**	1					
6. Sex	.68	.47	0	1	.160**	.196**	.171**	.094*	.169**	1				
7. Education	4.18	.99	1	6	−.002	.023	.118**	.035	.071	−.088	1			
8. Age	42.58	15.94	17	61	−.143**	.065	−.064	.093*	−.149**	.093*	−.167**	1		
9. Necessity	3.77	1.15	1	7	−.222**	−.113*	−.100*	−.085	.007	−.132**	.002	−.052	1	
10. Prior founding experience	.23	.42	0	1	.180**	.319**	.285**	.215**	.157**	.066	−.078	.351**	.025	1

*, **. Correlation is significant at the .05 level, .01 level (two-tailed).

We used these discrete responses to create a summated index ranging from 0 to 9 to operationalize new venture creation behavior (Kautonen et al., 2015). This is congruent with the notion that the more startup activities an individual has performed, the closer he or she is toward effectively creating a new venture (Koumbarakis & Volery, 2023). Finally, because these items reflect independent new firm gestation activities that together constitute new venture creation behavior, calculating Cronbach's alpha as an interitem reliability test is not relevant here (Diamantopoulos & Siguaw, 2006).

3.2.3. Action planning

We followed recent studies such as Zhou et al. (2015), Asenkerschbaumer et al. (2023) or van Gelderen et al. (2018) and measured action planning with three items on a 7-point Likert scale. Because action planning precedes effectively engaging in new venture creation behavior, like other studies on this, we also explicitly asked nascent entrepreneurs in this study to reflect back to the period just before they had undertaken any active efforts to start a new business when answering the action planning items (Asenkerschbaumer et al., 2023). The retrospective element of this measures respondents' degree of action planning before engaging in new venture creation behavior. In this study's sensitivity analysis (see Section 4.3.3.), like Asenkerschbaumer et al. (2023) or Stappers and Andries (2022), we further empirically address this approach to ensure robustness. We asked nascent entrepreneurs the following: "Before undertaking any active efforts to start a new business, I (1) had already planned precisely what I would do as my next step to start a new business and how to engage in it; (2) had already planned precisely when to engage in my next step to start a new business; and (3) had already planned precisely where to engage in my next step to start a new business." Cronbach's alpha demonstrated high reliability ($\alpha = 0.892$).

3.2.4. Entrepreneurial self-efficacy

We followed the approach of scholars such as Boudreaux et al. (2019), Shahriar and Shepherd (2019), or Yang et al. (2020) and used a dichotomous variable from the GEM to measure entrepreneurial self-efficacy, which is coded as 1 if respondents believe that they have the necessary knowledge and skills required to start a new business. Scholars have used either long multiple-item scales or binary instruments to operationalize entrepreneurial self-efficacy (e.g., Chen et al., 1998; McGee et al., 2009). We opted for the latter out of practical considerations, as lengthy measurement instruments can increase dropout rates or can influence sampling bias by attracting particularly highly motivated respondents to participate. Because nascent entrepreneurs are extremely difficult to reach, we had to make a trade-off between the number of items in the survey and the reach of it into our desired population. Therefore, we subscribe to this tradition of probing entrepreneurial self-efficacy dichotomously, which has proven to be a very robust approach that does not compromise measurement quality and has been methodologically well accepted in the entrepreneurship literature (Newman et al., 2019).

3.2.5. Risk-taking propensity

We followed studies such as Brachert et al. (2020), Caliendo et al. (2009), Dohmen et al. (2011), and Verheul et al. (2015) and used a widely used experimentally validated single-item measurement from the risk and entrepreneurship literature. For the purpose of this study, we asked nascent entrepreneurs: "How do you see yourself: Are you generally a person who is fully prepared to take risks or do you try to avoid taking risks?" This approach is central in the well-respected German Socio-Economic Panel survey. We registered respondents' answers also on a 7-point Likert scale, with 1 and 7 reflecting very low and high levels of risk-taking propensity, respectively.

3.2.6. Control variables

We controlled for five key factors that are suggested to affect new venture creation behavior. First, we added sociodemographic variables such as sex (coded 1 if male), age (continuous), and educational attainment (1 = none, 2 = primary education, 3 = secondary education, 4 = professional bachelor's degree, 5 = academic bachelor's/master's degree, 6 = advanced master's degree/PhD). Next, to account for whether individuals are driven by necessity to start a new business, the variable "Necessity" measured on a 7-point Likert scale the extent to which an individual's financial situation has deteriorated (coded 1 if strongly deteriorated), improved (coded 7 if strongly improved), or remained unchanged in the past year (coded 4). We followed this approach because the evidence base shows that declines in personal resources can lead to a growth in necessity entrepreneurship. Finally, we controlled for prior founding experience by operationalizing a binary variable that takes a value of 1 if nascent entrepreneurs indicate that they have already started a new venture in the past.

3.3. Common method variance

We used several ex ante procedural remedies in this study's research design to reduce common method variance (CMV) concerns. In brief, after separating the study measures in the survey, prior to launching, we conducted a pilot test in which several actual nascent entrepreneurs completed the survey. This ensured unambiguous understanding of all measurement items and confirmed that the purpose and constructs of this study were well camouflaged. Because our research model can be considered complex, our hypothesized relationships were unlikely to be part of respondents' cognitive systems.

Nonetheless, to assess and alleviate concerns about common method bias, we performed several ex post CMV tests. We first conducted a Harman one-factor test, which showed that a single factor accounted for 34.59 % percent of the total variance, which is under the recommended threshold value of 50 %. We next ran an unmeasured latent method factor model in AMOS 28, and the results revealed a common factor value of .17, which represents a CMV of 2.89 % (.17).[2] These post hoc estimates indicate that common method bias does not threaten this study's findings.

3.4. Confirmatory factor analyses

We conducted several confirmatory factor analyses (CFAs) to test the construct validity of the variables of our proposed research model: passion for founding, action planning, and risk-taking propensity. First, we performed a CFA for the baseline three-factor model. The model fit indices revealed that the baseline three-factor model fit the data very well, with $\chi2 = 1.443$, $p = 0.111$; CFI = .987; RMSEA = .030; RMR = .050; TLI = .985, and GFI = .979. Then we compared our baseline model with a two-factor model and a one-factor model. The two-factor model (passion for founding and action planning combined) showed the following goodness-of-fit values: $\chi2 = 16.978$, $p < 0.001$; CFI = .823; RMSEA = .180; RMR = .242; TLI = .753, and GFI = .808. The fit values for the one-factor model were $\chi2 = 34.331$, $p < 0.001$; CFI = .739; RMSEA = .260; RMR = .530; TLI = .634, and GFI = .714.

Taken together, the model fit indices show that the three-factor model fit the data substantially better than the alternative models. This provides evidence of construct distinctiveness for entrepreneurial passion for founding, action planning, and risk-taking propensity and confirms the discriminant validity of the constructs.

4. Results

Our bivariate analysis indicates the existence of significant (univariate) relationships between our hypothesized focal constructs (see Table 1 for the pairwise correlations and descriptive statistics). Multicollinearity does not pose a problem in this study, as all correlations are below the .8 cut-off and the variation inflation factors (VIF) of all variables (highest VIF value, 1.75) are well below the recommended cut-off of 10.

4.1. The mediating role of action planning

We performed the regression analyses in a three-step procedure. We first estimated a direct effect model ($R^2 = .310$, $p < 0.001$) in which we added all five controls to examine hypothesis H1. The results, presented in Table 2, show that passion for founding is positively related to new venture creation behavior, which supports H1. An additional cross-tabulation analysis (see Appendix II in the supplementary material) showed that 70.2 % of nascent entrepreneurs who exhibit high new venture creation behavior have a high passion for founding.

Next, we operationalized a mediation model to analyze hypothesis H2, followed by estimating the full moderated mediation to test hypotheses H3 and H4. We used Hayes PROCESS codes and Huber-White robust standard errors with 10,000 bias-corrected bootstrap samples. PROCESS is a widely used ordinary least squares approach favored by some recent studies over such traditional procedures as the Baron and Kenny (1986) or Sobel (1982) method (De Clercq, 2024; Scheuer & Thaler, 2024; Simarasl et al., 2022). In short, this estimation technique breaks down complex moderated mediation models into individual paths by calculating mediating and interaction effects separately, which are then integrated into a unified empirical model without the estimated parameters affecting one an other (see, e.g., Hayes & Rockwood, 2020 for a detailed discussion). PROCESS does not require normality, as it relies on bootstrapping, a computationally intensive technique that involves repeated sampling to estimate direct and indirect effects in each resampled data set (Preacher et al., 2007). We drew 10,000 bias-corrected bootstrap samples from our data set to construct confidence intervals at 95 % for the estimated direct and indirect effects.

Table 3 present the findings of our mediation effect analysis. The presence of the mediating role of action planning is confirmed (H2), as the bootstrapped 95 % confidence interval (CI) of the mediation analysis does not contain 0 (β = .042; 95 % CI, .032–.054). The results show that nascent entrepreneurs' passion for founding is significantly associated with developing variations in action planning, which functions as an important underlying mechanism that significantly stimulates them to effectively engage in new venture creation behavior. These results thus provide new evidence supporting action planning as a critical indirect explanatory factor that explains *how* nascent entrepreneurs with a passion for founding engage in new firm gestation activities. Indeed, the mediation model with the indirect role of action planning ($R^2 = .478$, $p < 0.001$) explains substantially more variation in new venture creation behavior compared to the direct effect model ($R^2 = .310$, $p < 0.001$). These results thus provide new evidence that action planning plays a significant role in *how* nascent entrepreneurs with a passion for founding effectively engage in new venture creation behavior.

Along with this, the confidence intervals show that action planning exerts a partial mediating effect. This finding provides a first evidence of

Table 2
OLS regression results for the direct effect model to estimate the effect of founding passion on new venture creation behavior.

Model 1	*β coeff*	*SE*	*t*
Constant	−1.260	.747	−1.687
Entrepreneurial passion for founding	.073	.008	9.217***
Sex	.550	.188	2.926**
Education	.327	.087	3.769***
Age	−.012	.007	−1.785
Necessity	−.009	.094	−.091
Prior founding experience	1.364	.269	5.075**
$R^2 = .310$, $p < 0.001$			

$n = 493$. Unstandardized regression coefficients are reported.
*$p < 0.05$. **$p < 0.01$, ***$p < 0.001$, two-tailed.

Table 3
Regression results to examine the mediating role of action planning.

	β coeff	SE	t
Mediator variable (DV = action planning); $R^2 = .3380$, $p < 0.0001$			
Constant	.4744	.4931	.9619
Entrepreneurial passion for founding	.0625	.0058	10.8406***
Sex	.4147	.1509	2.7474**
Age	.0067	.0048	1.4069
Education	.1107	.0660	1.6768
Necessity	.0047	.0656	.0717
Prior founding experience	.8999	.1881	4.7851*
Outcome variable (DV = new venture creation behavior); $R^2 = .4782$, $p < 0.0001$			
Constant	−1.5766	.6559	−2.4038**
Entrepreneurial passion for founding	.0311	.0074	4.1830***
Action planning	.6676	.0584	11.4346***
Sex	.2733	.1615	1.6919
Age	−.0160	.0059	−2.7411*
Education	.2535	.0760	3.3370**
Necessity	−.0117	.0812	−.1438
Prior founding experience	.7637	.2482	3.0773*

	β coeff	*SE*	*t*	*LLCI*	*ULCI*
Direct effect	.0311	.0074	4.1830***	.0175	.0467

	β coeff	BootSE	BootLLCI	BootULCI
Indirect effect	.0417	.0057	.0315	.0537

n = 493. Unstandardized regression coefficients are reported. Huber-White robust standard errors.
Bootstrap sample size = 10,000. *LL* = lower limit, *UL* = upper limit, *CI* = confidence interval (95 %).
*$p < 0.05$; **$p < 0.01$; ***$p < 0.001$ (two-tailed).

Table 4
Regression results of the full moderated mediation model.

	β coeff	SE	t
Mediator variable (DV = action planning); $R^2 = .3675$, $p < 0.0001$			
Constant	−1.6531	.4576	−3.6124***
Entrepreneurial passion for founding	.0344	.0121	2.8332***
Entrepreneurial self-efficacy	.7926	.1759	4.5057***
Passion for founding x entrepreneurial self-efficacy	.0267	.0134	1.9984**
Sex	.3946	.1484	2.6586***
Age	.0052	.0046	1.1266**
Education	.0774	.0657	1.1774
Necessity	.0132	.0659	.2007
Prior founding experience	.7871	.1886	4.1730*
Outcome variable (DV = new venture creation behavior); $R^2 = .4880$, $p < 0.0001$			
Constant	1.2930	.5639	2.2929*
Entrepreneurial passion for founding	.0316	.0079	3.9955***
Action planning	.6600	.0592	11.1479***
Risk-taking propensity	−.0376	.0747	−.5025
Action planning x risk-taking propensity	.0886	.0372	2.3802**
Sex	.3331	.1630	2.0441*
Age	−.0174	.0060	−2.9262*
Education	.2472	.0755	3.2749**
Necessity	.0130	.0794	.1640
Prior founding experience	.7721	.2477	3.1171*

	β coeff	*SE*	*t*	*LLCI*	*ULCI*
Direct effect	.0316	.0079	3.9955***	.0161	.0472

Index of moderated mediation	Index	BootSE	BootLLCI	BootULCI
	.0024	.0016	.0012	.0064

n = 493. Unstandardized regression coefficients are reported. Huber-White robust standard errors.
Bootstrap sample size = 10,000. *LL* = lower limit, *UL* = upper limit, *CI* = confidence interval (95 %).
*$p < 0.05$; **$p < 0.01$; ***$p < 0.001$ (two-tailed).

robustness, important given that recent debates on mediation analyses have emphasized that the partial nature of a mediating effect is a critical requirement for robustness (Tolstoy et al., 2021). This is because a full mediation would imply that the entire mechanism of how an entrepreneurial passion for founding leads to new venture creation behavior could be completely explained by the mediator under scrutiny, leaving no room for other indirect influences that may be at play. This not only would deny the complexity of the founding passion and new venture creation behavior relationship, but also would imply that all indirect influences that affect this relationship would have been identified, and that no further inquiry is needed to explore other facilitating or impeding mechanisms (Riar et al., 2023).

4.2. The moderating roles of entrepreneurial self-efficacy and risk-taking propensity

Table 4 presents the regression results of the full moderated mediation to test the complete hypothesized conditional effect model. The findings show that the interaction effect of entrepreneurial self-efficacy is significant (β = .027; 95 % CI, .010–.053), meaning that the effect of passion for founding on action planning is indeed significantly contingent on an individuals's entrepreneurial self-efficacy (hypothesis H3). As such, the results show that entrepreneurial passion for founding leads to action planning significantly more often *when* nascent entrepreneurs believe that they possess the necessary knowledge and skills required to start a new business. Then, with regard to the moderating role of risk-taking propensity, our results also provide new evidence for its contingent effect (β = .089; 95 % CI, .014–.157), which confirms hypothesis H4. These results demonstrate that action planning leads to new venture creation behavior significantly more often *when* nascent entrepreneurs have a greater willingness to take entrepreneurial risks.

Taken together, our findings reveal that the hypothesized mediation model is contingent on entrepreneurial self-efficacy and risk-taking propensity. The results indicate that these factors provide new, compelling insights to explain and predict *when* nascent entrepreneurs with a passion for founding engage in new venture creation behavior through action planning. Thus, on one hand, when nascent entrepreneurs believe that they have the knowledge and skills required to start a new business and have a passion for founding a new firm, they will significantly develop more action plans to engage in new venture creation behavior, whereas on the other hand, when passionate nascent founders who have developed action plans to start a new venture have a high propensity to take entrepreneurial risks, this strengthens the extent to which these action plans will be effectively converted to more new venture creation behavior.

4.3. Robustness tests

4.3.1. Moderated mediation: nascent entrepreneurs with a low founding passion

To ensure the robustness of our findings, we reran the models by gauging the effect of nascent entrepreneurs who have a low founding passion. In line with the rationale that EPf is a critical motivational driver for effectively performing new venture creation behavior, we retained all earlier controls and operationalized a binary variable that takes a value of 1 (below the mean) if nascent entrepreneurs have a low founding passion, which is a sign of a weak specific entrepreneurial goal that an individual has a distinct motivation to pursue (Asenkerschbaumer et al., 2023).

The results of the mediation analysis confirm and strengthen our earlier findings by revealing that a low founding passion had a significant negative effect on action planning (β = −1.545, p < 0.001) and new venture creation behavior (β = −.754; p < 0.001). Taken together, the full model's negative indirect mediating effect (β = −1.167; 95 % CI, −1.475 to −.879) demonstrates that a low founding passion has a significant negative effect on new venture creation behavior by developing significantly fewer concrete action plans for startup. In sum, these

results highlight the important role of action planning as a critical underlying mechanism that explains *how* a nascent entrepreneur's founding passion leads to new venture creation behavior.

Finally, the results of the full moderated mediation with the contingent roles of entrepreneurial self-efficacy and risk-taking propensity again further confirm and strengthen our initial findings. The indirect effect of the moderated mediation ($\beta = -.087$; 95 % CI, −.200 to −.111) shows that these contingent factors moderate the significant negative effect of a low founding passion, making it less negative.

4.3.2. Moderated mediation: three alternative stringent measures of new venture creation behavior

We performed three additional robustness analyses using different stringent measures of new venture creation behavior. The results of these are in line with our earlier findings and show that our results continue to hold. More details are provided in Appendix III in the supplementary material.

4.3.3. Sensitivity analysis to certify robustness

Although we used a unique dataset of 493 nascent entrepreneurs and did not rely on student data or existing founder samples like most previous studies, we performed an extensive sensitivity analysis to address the cross-sectional limitations of this study and to alleviate potential reverse causality concerns raised by passion and entrepreneurship scholars (Gielnik et al., 2015).

First, because sequential ignorability (no omitted variable bias, exogeneity, or unconfoundedness) is an essential assumption in mediation analyses, to finally ensure the robustness of our results, we used the Medsens routine and Moremata module in STATA (Hicks & Tingley, 2011). This allowed us to analyze the sensitivity of our to a potential violation of this assumption. The results show that our results are highly robust to confounding—specifically, that the point estimate of the average causal mediation effect (ACME) is guaranteed, provided that a possibly unobserved confounder explains less than 23.42 % of the remaining variance in the mediating variable as well as in the outcome variable. This implies that an omitted confounding variable must explain 23.42 % of the remaining variance in the mediator and simultaneously 23.42 % of the remaining variance in the outcome variable—only in such a case, the ACME would become insignificant.

This sensitivity analysis affirms the robustness of our results against the existence of a possibly unobserved confounder (omitted variable and endogeneity/reversed causality), which can be concluded as implausible given these results and since our main model already explains up to 46.40 % of the variance (Imai et al., 2011). To put this in perspective, these sensitivity results are in line with recent empirical findings of other studies using this rigorous sensitivity approach (Bloemen-Bekx et al., 2019; Colson et al., 2024).

5. Discussion

By exploiting a unique sample of 493 nascent entrepreneurs, this study set out to provide robust new insights into the big passion play in new venture creation by shedding new light on *how* and *when* passionate nascent founders engage in actual new venture creation behavior. The study findings make several novel contributions.

5.1. Theoretical contributions

First, this study advances theories on the drivers of new venture creation and contributes to the current debate calling for new insights beyond the still overly zealous focus on the sociocognitive approach, which remains dominated by the generic study of intentions (Batista-Canino et al., 2024; Shepherd et al., 2021; Shirokova et al., 2016). Entrepreneurial intentions have reigned over entrepreneurship for years because of their conceptual status as key predictors of new venture creation (Kautonen et al., 2015). However, there is a vivid discussion today about the observation that they do not translate as strongly as once theorized into actual new venture creation behavior performed by nascent entrepreneurs (Gieure et al., 2020; Shirokova et al., 2016). Recent studies have empirically revealed the limits of this association by demonstrating that many nascent entrepreneurs end up not starting a new business, failing to follow up on their intended new firm gestation activities because of the complexity and vast hurdles of founding a new venture (Bogatyreva et al., 2019; Bort et al., 2023; Roelandt et al., 2023). In response to this phenomenon, entrepreneurial passion scholars have posited that the distinct motivational effect of an individual's entrepreneurial founding passion is a fundamental factor that warrants further study, as it can fuel nascent entrepreneurs to effectively overcome the challenges of new venture creation, which traditionally inhibit many from remaining engaged in new venture creation behavior (Murnieks et al., 2020; Newman et al., 2021). In this regard, our results offer a new identity-based understanding that having a founding passion is a necessary specific motivational factor, however, we shed new light that this is not a sufficient element to start a new venture (Cardon et al., 2013; Riar et al., 2023). What we mean by this is that other indirect factors also are at play, as even many fiercely passionate nascent founders abandon their startup endeavors because new venture creation is such an arduous and demanding undertaking (Ivanova & Tornikoski, 2022; Riar et al., 2023).

Second, with this new understanding, we move the entrepreneurial passion literature forward by substantially opening up the complexity of the big passion play in new venture creation, of which we have a surprisingly scant theoretical and empirical understanding (Newman et al., 2021; Riar et al., 2023). This next contribution specifically lies in the fact that extant works thus far have largely left the underlying mechanisms unexplored which are essential to understand how passionate nascent founders effectively engage in new venture creation behavior (Adomako et al., 2022; Li et al., 2020; Newman et al., 2021; Qian et al., 2022). Our results reveal the important role of the strategic practice of action planning by demonstrating that nascent entrepreneurs' founding passion is significantly associated with developing concrete action plans for startups, which functions as a mediating mechanism that fosters engagement in actual new venture creation behavior. Our findings in particular show that this deliberate strategic practice of specifically planning when, where, and how to undertake new firm gestation activities support the idea that a distinct motivation like a passion for founding translates into actual engagement in new venture creation behavior (Gollwitzer, 1999; Gollwitzer & Sheeran, 2006; van Gelderen et al., 2018). Robustness and sensitivity analyses demonstrate that our results hold and also reveal that a low founding passion exerts a significant negative effect on new venture creation behavior through developing significantly less concrete action plans for startup.

Third, this study contributes to the action planning literature by providing a new conceptual understanding of the emergence of this strategic practice, knowledge of which in nascent entrepreneurship is still in its infancy (Asenkerschbaumer et al., 2023; van Gelderen et al., 2018). While earlier studies in other domains (e.g., job search, health, green purchase behavior) have shown the importance of action planning in effectively pursuing a variety of complex behaviors, knowledge of its drivers in the field of entrepreneurship remains limited (Carraro & Gaudreau, 2013; Gollwitzer, 1999; McWilliams et al., 2019; Prestwich et al., 2015). Recently, entrepreneurship scholars have provided the first preliminary evidence that an individual's entrepreneurial goal intention strength and entrepreneurial imaginativeness (hitherto the only known antecedents) can drive action planning, suggesting that certain factors can guide the deliberate development of action plans to reach desired behavior (Asenkerschbaumer et al., 2023; van Gelderen et al., 2018). By rigorously positioning entrepreneurial founding passion as a new antecedent in the literature, we provide new knowledge of how action planning emerges in new venture creation. Following Cardon et al.'s (2009, 2013) identity-based rationale on which we have drawn, nascent entrepreneurs who are passionate about founding a new venture

experience intense positive feelings associated with their entrepreneurial identity of being a nascent founder. This specific strongly experienced motivational desire makes them narrowly focused on starting their own new venture (Zollo et al., 2020). Our results offer a new understanding that passionate nascent founders, as a response to such a distinct motivation to effectively achieve this goal, deliberately develop self-generated action plans for startups, as this strategic practice of planning when, where, and how to act reduces the uncertainty and challenges of the many hurdles in new venture creation that will be encountered (Roelandt et al., 2023; van Gelderen et al., 2018).

Next, we advance the knowledge of the complexity of the big passion play in new venture creation even further by providing new insights on the contingent factors at play that influence *when* passionate nascent founders engage in actual new venture creation behavior through action planning (Newman et al., 2021; Riar et al., 2023; Shirokova et al., 2016). Scholars have particularly attributed conceptual importance to the conditional effect that a nascent entrepreneur's entrepreneurial self-efficacy can have, but which elements are strengthened by this contingency remain unclear (Newman et al., 2019). In this light, this study provides new insights for the entrepreneurial self-efficacy literature demonstrating that the moderating influence of entrepreneurial self-efficacy significantly enhances how individuals with a passion for founding plan for actions to start a new venture (Newman et al., 2019). These new insights demonstrate that *when* passionate nascent founders believe they have the necessary knowledge and skills to start a new business, they will significantly develop more specific action plans for when, where, and how they need to engage in new venture creation behavior. With this, we show how this condition can lead to significantly more action planning, because such individuals will plan their actions to engage in new firm gestation activities more specifically since they feel more knowledgeable about the many complex challenges new venture creation will throw at them (Kickul et al., 2009; Newman et al., 2019).

Following this, our work adds to the risk literature in entrepreneurship by providing a new understanding of the contingent effect of nascent entrepreneurs' risk-taking propensity in the big passion play of new venture creation (Riar et al., 2023; Shirokova et al., 2016). The conditional effects of risk-taking in nascent entrepreneurship remain insufficiently understood to this day, and scholars have called for a better conceptual understanding of when this determines actual engagement in new venture creation behavior (Brachert et al., 2020; Caliendo et al., 2009). Our study adds to the literature by revealing that *when* passionate nascent founders who have developed action plans for startups have a high propensity to take entrepreneurial risks, this is a significant factor in converting these action plans into actual engagement in new venture creation behavior. This is because this condition stimulates them to bear and overcome the uncertainty associated with new venture creation and to effectively take the leap (McMullen & Shepherd, 2006). With this, we contribute by providing new evidence that this contingency is a vital factor that strengthens the extent to which action plans, which stipulate when, where, and how nascent entrepreneurs engage in new firm gestation activities, will be effectively converted in more new venture creation behavior. Our results thus offer a new conceptual understanding of the importance of having a high propensity to take entrepreneurial risks, as this contingent factor makes that such nascent entrepreneurs are more likely than their more risk-averse counterparts to effectively act on action plans to perform challenging new firm gestation activities (Brachert et al., 2017; Caliendo et al., 2014; Robinson & Marino, 2015).

Finally, this study makes an overarching contribution by adding a novel empirical understanding to the entrepreneurial passion and new venture creation literature. While our understanding of passionate founders in nascent entrepreneurship remains scanty and is based on student samples from specific geographies (e.g., North-American, Chinese), robust evidence from a central European context, that also moves away from such sterile samples, is still lacking (Li et al., 2020; Qian et al., 2022). In addition, the fact that EP's intense positive feelings and identity centrality are largely culturally determined poses an important challenge for (European management) scholars. To this day, the limited available evidence cannot fully determine whether a nascent entrepreneur's founding passion is indeed a decisive and necessary factor, nor can it explain how and when this effectively translates into new venture creation (Neneh, 2020). In this respect, scholars argue that the European context provides a highly suitable laboratory in which to pursue such new answers as it finds itself at the crossroads of simultaneously housing both individualistic and collectivistic cultural values. By using unique hand-collected general population data from 493 Belgian nascent entrepreneurs, we move beyond the common reliance on student or existing founder samples, which suffer from important methodological limitations, as discussed earlier. In so doing, this study provides new and compelling insights into the importance of nascent entrepreneurs' founding passion as a distinct motivational factor, as well as how and when the big passion play unfolds in new venture creation.

5.2. Practical implications

Our results have several practical implications for stimulating new venture creation behavior. First, our results provide new insights into the importance of action planning for new venture creation and even show that nascent entrepreneurs with a low founding passion develop significantly less concrete action plans for startups, which, based on our results, negatively influences engagement in new venture creation behavior. Most knowledge of action planning comes from other fields in which studies (e.g., job search, health) actively instruct respondents to plan for action. These studies have shown that supporting individuals in strategically planning for complex actions highly fosters effectively attaining desired behavior. Our results can be of particular relevance for entrepreneurship stakeholders involved in startup programs. Practitioners in such support programs can direct more attention to the strategic practice of action planning based on our results by actively assisting and pushing nascent entrepreneurs to develop even more robust and concrete action plans on when, where, and how to start instead of support programs' more traditional focus on the material startup attributes (e.g., product or service viability). In so doing, this is a new evidence-based answer that can contribute to tackling the phenomenon that more (passionate) nascent entrepreneurs than thought and theorized hitherto drop out and ultimately do not start a new business (Riar et al., 2023; Shirokova et al., 2016).

Our study also has implications for stimulating entrepreneurial self-efficacy. Entrepreneurship education has a central place in this (Newman et al., 2019). Thus, the study results have implications for the design of entrepreneurship education programs that are widely offered today by universities and stakeholders such as employers' organizations. The literature increasingly reports that some types of entrepreneurship education (e.g., theoretical vs practical orientation) stimulate entrepreneurial self-efficacy much more than others (Nabi et al., 2017). With this in mind, practitioners can use our results to optimize the design of high-impact programs to stimulate entrepreneurial self-efficacy, which we have shown to function as a critical contingent factor *when* passionate nascent founders develop action plans for startups (Simarasl et al., 2022).

Finally, our study can provide new, fundamental input to the lingering debate on steering policy measures toward more conducive institutional conditions, as scholars have shown that nascent entrepreneurs' willingness to take entrepreneurial risks is influenced by a country's institutional environment (Urbano et al., 2019). In particular, countries such as Belgium in this study have been repeatedly criticized by leading organizations (e.g., The World Bank, OECD, GEM) for still having high institutional barriers to start up, which negatively influences the extent to which nascent entrepreneurs are willing to take entrepreneurial risks (Boudreaux et al., 2019). Based on our results, reducing regulatory barriers by working toward more conducive labor, tax, licensing or startup regulations will positively influence nascent

entrepreneurs' willingness to take risks, which, as we have shown, is a critical contingent factor in effectively converting action plans of passionate nascent founders into actual new venture creation behavior. We suggest that policy makers conduct rigorous ex ante policy evaluations by experimentally testing the effectiveness of new, more conducive regulations to maximize their impact on when passionate nascent founders are willing to take entrepreneurial risks.

5.3. Limitations and future research

Like any other studies, this work has some limitations that can provide interesting avenues for future research. First, while we used widely accepted approaches to measure the contingent factors in this study, future studies could further disentangle their effects by using multidimensional scales. These can shed new light on the specific elements at play in nascent entrepreneurs' entrepreneurial self-efficacy and risk-taking propensity that influence when passionate nascent founders engage in new venture creation behavior. Next, because entrepreneurial self-efficacy centers around a nascent entrepreneur's own assessment of their entrepreneurial knowledge and skills, it does not consider their actual, objective knowledge and skills. This is important, given that a nascent entrepreneur might believe that he or she is very capable but in reality might have overrated his or her entrepreneurial skills and knowledge. Although this was not a focus of our study, we invite future studies to explore this interesting distinction between one's perceived and actual entrepreneurial knowledge and skills, as this might affect the quality of action planning, which can provide interesting new insights. In the same vein, future studies could explore whether this also affects the quality of new venture creation behavior (e.g., producing more qualitative business models or products/services).

Finally, our study is based on a unique sample of 493 actual nascent entrepreneurs and aligns with the majority of seminal recent works on new venture creation, which still are generally cross-sectional in nature and mostly draw on student or already existing founder samples (Bogatyreva et al., 2019; Shirokova et al., 2019; Stappers & Andries, 2022). Although our robustness and sensitivity analyses alleviate the cross-sectional limitation of this study and affirm the robustness of our findings different times, we challenge future studies to embark on the notoriously challenging endeavor of further exploring the complexity of the big passion play in new venture creation longitudinally and by taking into account different cultural contexts. This may reveal new underlying mechanisms and contingent factors that determine how and when passionate nascent founders engage in new venture creation behavior, as recent review studies have shown that scholars are only starting to comprehend these (Riar et al., 2023). In this vein, we also invite scholars to respond to recent calls to use multilevel approaches to account for external factors, such as country-specific institutional elements, as these can interact with individual-level factors that influence the big passion play (De Keyser et al., 2024; Hernaus et al., 2024). Such designs can provide interesting new insights when hierarchically higher external factors enable or constrain passionate nascent founders.

CRediT authorship contribution statement

Maarten Colson: Writing – review & editing, Writing – original draft, Validation, Supervision, Software, Resources, Project administration, Methodology, Investigation, Formal analysis, Data curation, Conceptualization. **Pieter Vandekerkhof:** Writing – review & editing. **Wim Marneffe:** Writing – review & editing. **Jelle Schepers:** Writing – review & editing.

Ethics approval

All the respondents in this study explicitly gave their consent to participate (voluntarily) after being informed of their rights. Data were treated completely in accordance with the European General Data Protection Regulation.

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Appendix A. Supplementary data

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