

# **Achieving coherence: Towards a model of the nascent-stage behavioral dynamics of new venture teams**

Michael Pietersen & Melodi Botha\*

Department of Business Management, University of Pretoria, Office 3-45. Economic and Management Sciences Building, Lynnwood Road, Pretoria, 0002, Republic of South Africa

\*Correspondence to melodi.botha@up.ac.za

## **Abstract**

While research has begun to identify Team Entrepreneurial Passion (TEP) and Team Entrepreneurial Competencies (TEC) as drivers of new venture team (NVT) dynamics, current literature fails to account for how these cognitive elements interact to influence team behavior, particularly throughout the nascent stages of the entrepreneurial process. Previous research has almost exclusively investigated NVT dynamics at later stages, once the NVT is established, has successfully created the venture and begun capturing value from an opportunity they have capitalized on. The purpose of this paper is to fill this void by investigating NVT behavioral dynamics throughout the nascent stages of the entrepreneurial process—from initial venture idea generation, to venture opportunity development, and ultimately action to exploit that opportunity. We conduct multiple longitudinal case studies and observations of NVTs in the food service and fintech industries as the teams progress through the nascent stages of the entrepreneurial process. Bridging three formerly disparate constructs of shared cognition, TEP, and TEC, through the lens of construal-level theory, a conceptual model - of the coherence process of NVTs is developed. Construal levels accounts for the coherence of a NVT towards shared cognition, TEP and TEC and explain how and why differences in these constructs drive varying perceptions and ultimately team behavior and performance. Case study observations illustrate our theory that differences in construal level create conflict in entrepreneurial behavior which hinders NVT performance while congruency in construal level enables NVT coherence and performance. Through construal levels, this research offers novel insights into drivers of abstract, thinking and planning-type behaviors versus concrete, doing-type behaviors. This could inform the management of distinct

behavioral approaches in an NVT context. Business incubators, NVTs and various entrepreneurial support programs can empirically test and use this model to understand when and how Shared Cognition, TEP and TEC develop and interact between a NVT's members to impact team-level behaviors and outcomes.

**Keywords** – New venture teams, Team Entrepreneurial Passion, Team Entrepreneurial Competence, shared cognition, construal-level theory, entrepreneurial behavior, NVT coherence process.

## **Introduction**

Entrepreneurship entails the emergence of new economic ventures and is increasingly being recognized as more likely to emerge from the efforts of an entrepreneurial team rather than an individual (Davidsson 2018). Given that new venture emergence plays a crucial role in supporting economic growth and prosperity (Teague and Gartner 2017), a compelling question is how to effectively facilitate this emergence from a team perspective? While scholars have recently begun investigating new venture teams (NVTs) from a variety of lenses, all of which suggest the importance of some form of collective cognition, this has almost exclusively been among NVTs in stable, operational ventures. For example, previous research has explored how various collective cognitive aspects of the team, such as shared cognition (Chen et al. 2017), mutually formed Team Entrepreneurial Passion (TEP) (Cardon et al. 2017) and Team Entrepreneurial Competence (TEC) (Santos et al. 2019), impact various behavioral and performance outcomes of the venture. Yet there is limited understanding of how these concepts form and interact throughout the nascent stages of the entrepreneurial process.

Vogel (2017) identifies these nascent stages as commencing from initial idea generation to venture opportunity and ultimate action. This paper builds on this prior work and abductively develops a conceptual model which seeks to explain a coherence process of NVTs by integrating these various antecedents this early stage, when an NVT has yet to act, or even agree, on an opportunity. This model draws from Construal-Level Theory (CLT) (Liberman and Trope 1998) as a lens for explaining how these collective cognitive elements may influence entrepreneurial behaviors aimed towards venture

emergence (Chen et al. 2018). Indeed, the body of work on these cognitive element of NVTs have highlighted two central and interrelated limitations. Firstly, there is limited understanding of how such collective cognition develops (Breugst and Shepherd 2017). For example, how do individuals with differing competencies and passions come together to form a coherent and functional NVT with TEC and TEP? To date, scholars have typically assumed variation in team cognition, but have not explored the antecedents and drivers of this variation (Grégoire et al. 2011). To the extent that these dynamics remain unexplored, entrepreneurship scholars will remain unable to fully understand the drivers of venture emergence and “the source of entrepreneurs’ cognitive difference” (Grégoire et al. 2011 p. 1459). Secondly, we propose that this issue will remain particularly because limited work has been done on collective cognition in the early-stages of venture emergence (de Mol et al. 2020). Previous research has almost exclusively investigated NVT dynamics at later stages, once the NVT is established, has successfully created the venture and begun exploiting the recognized opportunity. Notwithstanding the success bias in investigations at this stage (Vahidnia et al. 2017), NVT dynamics are also poised to operate differently compared to the early-stage process of venture emergence. For example, an already functional team who has reduced uncertainty by commencing the exploitation of an opportunity is likely to appreciate a degree of task conflict in the team as a means to enhance knowledge production (Breugst and Shepherd 2017). Furthermore, NVTs in this progressed developmental stage already have a base of collective cognition which drives the overall direction of the venture more than any individual-level differences (Cardon et al. 2017). Alternatively, in the nascent stages of the entrepreneurial process, a NVT is still developing their initial venture concept and evaluating it to determine where the true venture opportunity lies (Vogel 2017). At this stage, NVTs are unlikely to have formed a sense of collective cognition (Cardon et al. 2017) and a valuable opportunity lies in investigating drivers of this collective cognition (Liñán et al. 2011; Davidsson and Gordon 2012).

The purpose of this paper is, therefore, to address these limitations and enrich theory around how NVTs develop a collective cognition throughout the nascent stages of the entrepreneurial process. More specifically, the following research questions are raised: How do (i) collective cognitive elements such as TEP, TEC and shared cognition develop and eventually cohere throughout the nascent stages of the entrepreneurial process, and (ii) construal levels interact to influence the dynamics of a NVT, as

well as (iii) the behaviors and behavioral outcomes of the NVT. Behavioral outcomes reflect the immediate and measurable results of behavior (Teague and Gartner 2017) TEP, refers to a team-level construct comprising the aggregate collective affect and identity of the team (i.e. “who are we”) (Cardon et al. 2017). Similarly, Santos et al. (2019) introduced the concept of TEC, which refers to a team-level construct comprising the aggregate of team members’ entrepreneurial competencies. Linking these seemingly disparate constructs is the concept of shared cognition of the NVT, which refers to the congruency in a NVT’s understanding, values and goals (Chen et al. 2017). At the same time, Chen et al. (2018) began to suggest that differences in construal levels could impact team dynamics. Therefore, by drawing on the CLT to explain group dynamics in the entrepreneurial context, this research begins to provide insight into how the divergence and/or congruence in construals influence NVT outcomes from an entrepreneurial perspective.

Ultimately, entrepreneurship is a practice, requiring entrepreneurial behavior for any venture to come into existence, survive, and grow (Bird et al. 2012). Furthermore, the selection, combination and sequence of behaviors determine behavior specific outcomes which are more specific than venture outcomes and therefore provide more direct insight into what impacts venture-level outcomes more broadly at later stages (Teague and Gartner 2017). Chen et al. (2018) posit that certain drivers of differing construal levels result in either more abstract, thinking and planning-type behaviors versus concrete, doing-type behaviors which should impact behavioral outcomes. Thus, we specifically explore the impact of these collective cognitive aspects on behaviors and behavioral outcomes rather than more distal venture-level outcomes such as profitability or growth, with the aim of achieving a fine-grained behavioral understanding of nascent-stage venture emergence in NVTs (Vahidnia et al. 2017).

To accomplish these goals, we develop a conceptual model of the coherence process of NVTs which is supported by in-depth, longitudinal case studies of two NVTs. Each of these NVTs consist of three entrepreneurs who recently joined separate university business incubation programs at the start of their entrepreneurial forays. In so doing, the following contributions are made. First, our conceptual model is developed on the basis of abductively theorizing and studying the distinct emotions, identities, competencies and cognitions demonstrated by the team members in the cases at both the individual-

and the team-level. This paper thus contributes by proposing an empirically grounded conceptual framework from which to understand the formation of, and the joint role of, TEP, TEC and shared cognition on behavior and behavioral outcomes in the nascent stages of the entrepreneurial process (Bell et al. 2018).

Second, CLT has typically been investigated at the individual level, and while scholars such as Wilson et al. (2013) has begun to explore CLT at the team-level, there is a dearth of such insight in the entrepreneurial context. Through construal levels, this research offers novel insights into entrepreneurial passion and competencies that are linked to abstract, thinking and planning-type behaviors versus those linked to concrete, doing-type behaviors. This could inform the management of distinct behavioral approaches in an NVT context. This is an important theoretical contribution as this work indicates a way of integrating the literatures on team cognition (Chen et al. 2017), TEP (Cardon et al. 2017), and TEC (Santos et al. 2019) through CLT (Liberman and Trope 1998), thus providing a more holistic view of NVT dynamics.

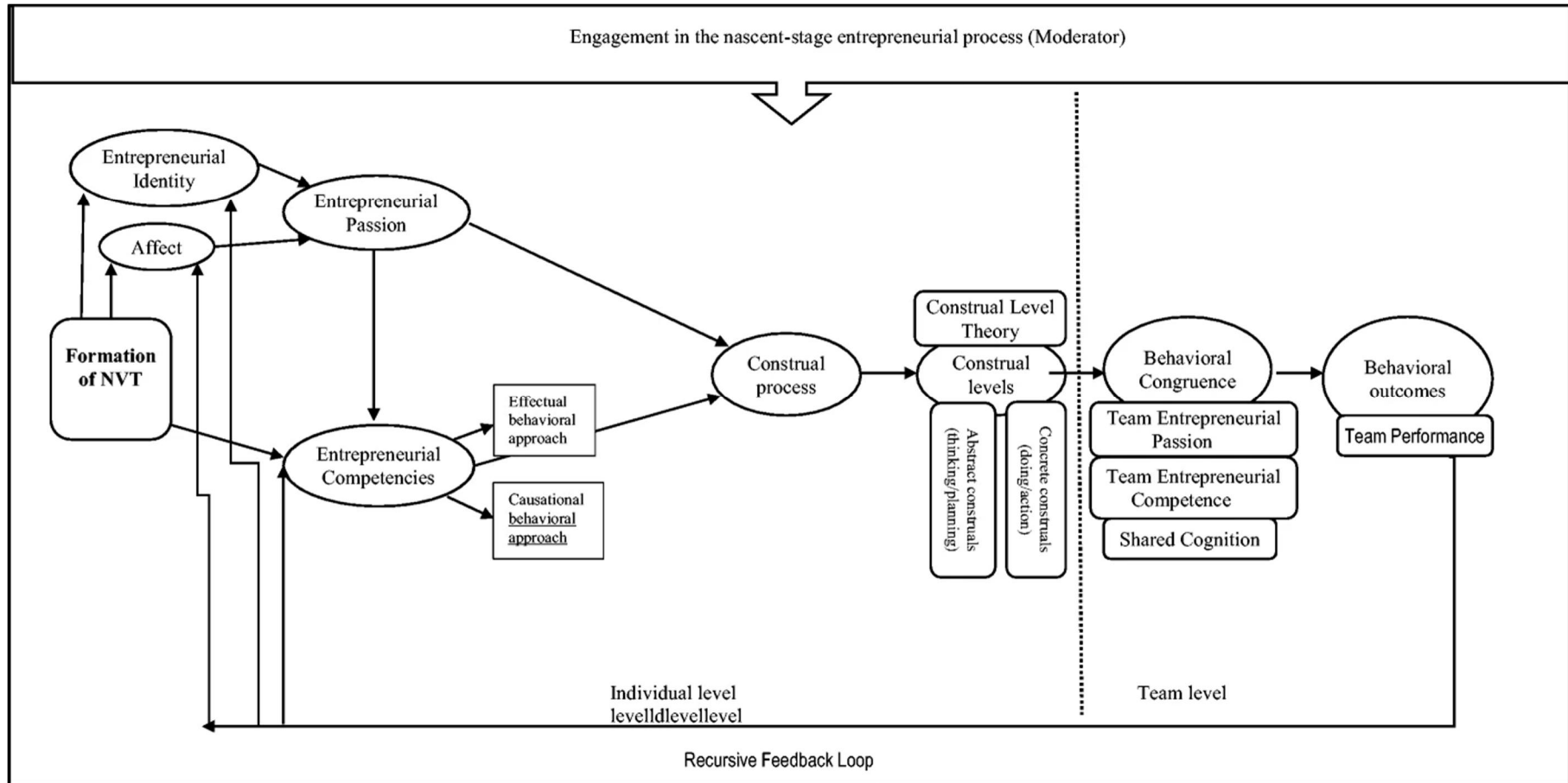
Finally, entrepreneurship is ultimately about action (Teague and Gartner 2017), thus the paper can assist in understanding how affect, identity and competencies impact individuals as well as teams behaviorally. Through the CLT lens this paper contributes to practice by demonstrating how the construals of individuals' passion and competencies in a NVT impact behavioral congruency and ultimately behavioral outcomes (action). In particular, differences in construal level create conflict in entrepreneurial behavior which hinders NVT behavioral outcomes while congruency in construal level enables NVT coherence and performance (Chen et al. 2018). Chen's view is supported in this paper through the case study observations which may form the basis for understanding how NVTs, as well as incubators or any other entrepreneurial support organizations, can manage NVT dynamics to enhance performance.

## **Theoretical background**

### *The NVT coherence process*

While a large body of work exists on entrepreneurial passion and competencies at the individual level, few studies have investigated these constructs from an entrepreneurial team perspective, despite the fact that teams form and direct the majority of nascent ventures (Klotz et al. 2014). Indeed, as lamented by Grégoire et al. (2011), few studies have explored the interactions between cognitive elements and how they influence entrepreneurial behavior at the individual and team levels of analyses. Since our interest was in building and enriching theory, we use the Construal-Level Theory (CLT) to support the interactions between the cognitive elements and how varying construal levels influence behavioral outcomes. There are indeed a range of cognitive elements which could be explored in the entrepreneurial context (for a review, refer to Grégoire et al. 2011). However, our aim was to achieve explanatory relevance rather than comprehensiveness in exploring the cognitive elements. Therefore, we identified three cognitive elements as especially helpful in understanding the behavioral dynamics of NVTs at the nascent stages of the venturing process, broadly referred to as: Team Entrepreneurial Passion (TEP), Team Entrepreneurial Competence (TEC) and shared cognition. These three elements have been well-investigated and, as will be elaborated on in the next sections, are particularly fruitful in understanding the impact of cognition on the types of behaviors taken at the team level (Chen et al. 2017; Cardon et al. 2017; Santos et al. 2019). Specifically, we explain the interaction of individual-level elements and the behavioral congruences of these three elements through construal levels which we introduce as the NVT coherence process.

As mentioned, the work on NVTs predominantly focuses on venture-level outcomes in teams who are already practicing in established firms and not on teams in the nascent stages of the entrepreneurial process (Santos et al. 2019), where they are still working on their venture concept (Vogel 2017). It is this explanatory gap which this research seeks to address. We commence with development of the NVT coherence process by discussing the interaction between the cognitive elements (e.g. entrepreneurial identity, affect, entrepreneurial passion, entrepreneurial competencies) at an individual-level. Thereafter, the key concepts surrounding TEP, TEC and shared cognition with the



**Fig. 1:** Conceptual model of the NVT coherence process

aim of understanding how construal levels impact on their behavioral outcomes are investigated. Finally, a conceptual model of this NVT coherence process is illustrated in Figure 1 which indicates how the individual level elements interact and through a construal process lead to behavioral congruences of shared cognition, TEP and TEC.

### **The interaction of cognitive elements at an individual level**

#### *Affect, entrepreneurial identity, passion and competencies*

At an individual level, the entrepreneurial identities of each founder involve the sense of self (i.e. “who am I”) that allows for the identification and establishment of entrepreneurial tendencies (Clarke and Holt 2010). It involves a set of meanings that represent the self in a social role and in a role within the venture, and is linked to behavioral patterns within a social environment (Burke 2006). At NVT formation, differing identities and roles perceived by the founders of the NVT motivate differing behaviors (Cardon et al. 2009). We build on the work by Baron (2008) who suggests that affect, which is the feelings and moods individuals experience, influence many aspects of cognition and behavior. Indeed, intense positive affect is elicited when an entrepreneur is able to engage in activities central to their self-identity which engenders entrepreneurial passion (Cardon et al. 2009).

Entrepreneurial passion, which an individual experiences when intense positive feelings are associated through the engagement in entrepreneurial activities, has received considerable scholarly attention in entrepreneurial contexts since intense affective states and entrepreneurial identities appear to be central to the entrepreneurial experience (Cardon et al. 2009). This is particularly due to the series of events that occur throughout the entrepreneurial process which are highly affective in nature (Baron 2008; Foo et al. 2009). At the same time, it is likely that individual entrepreneurial competencies interact with entrepreneurial passion. This is particularly likely because entrepreneurial competencies, through enabling a process of appropriate engagement with the social and contextual environment, influences identity formation (Rae 2006). It is, thus, imperative to understand the joint role of these cognitive elements in influencing an NVT’s behaviors.



**Table 1: Entrepreneurial competencies as identified in the literature**

<b>Entrepreneurial competency</b>	<b>Definition</b>	<b>Source</b>	<b>Behavioral approach</b>
<b>Opportunity recognition</b>	The ability to identify new situations in the environment which suggest the potential to earn a profit.	Morris, Webb, Fu, and Singhal (2013)	Causational (Lerner, Hunt, & Dimov, 2018)
<b>Opportunity assessment</b>	The ability to evaluate the attractiveness of recognized opportunities.	Morris et al. (2013)	Causational (Lerner et al., 2018)
<b>Conveying a compelling vision</b>	The ability to imagine a future organizational state and to express such in a way that others are persuaded to follow and enact that vision.	Morris et al. (2013)	Causational (Santos, Morris, Caetano, Costa, & Neumeyer, 2019)
<b>Risk management</b>	The ability to reduce the likelihood of risk occurrence and mitigate the impact if the risky outcome does occur.	Morris et al. (2013)	Causational (Lerner et al., 2018)
<b>Perseverance</b>	The ability to sustain efforts and engage in persistent behavior regardless of the obstacles, setbacks and resistance encountered.	van Gelderen (2012)	Causational (Lerner et al., 2018)
<b>Resource leveraging</b>	The ability to marshal the resources out of one's control to manage a venture.	Morris et al. (2013); Santos, Caetano, and Curral (2013)	Causational (Lerner et al., 2018)
<b>Creative problem solving</b>	The ability to generate novel and appropriate answers or solutions to challenges. A skill based on the accumulation of effort, imagination and knowledge which employs novel ways to produce appropriate and useful outcomes	Morris et al. (2013) McMullen and Kier (2017)	Effectual (Santos et al., 2019)
<b>Value creation</b>	The ability to create new products, services, and/or business models that generate a profit.	Morris et al. (2013)	Effectual (Santos et al., 2019)
<b>Self-efficacy</b>	The perceived ability to execute a behavior and achieve certain tasks.	Bandura and Walters (1977)	Causational (Santos et al., 2019)
<b>Developing social networks</b>	The ability to interact with others and establish networks with individuals who can assist in the development and advancing of a career or business.	Santos et al. (2013)	Effectual (Kerr & Coviello, 2019; Santos et al., 2019)
<b>Resilience</b>	The ability to handle or tolerate stresses and adversity.	Morris et al. (2013); Santos et al. (2013)	Causational (Santos et al., 2019)
<b>Guerrilla skills</b>	The ability to employ unconventional, low-cost methods, and rely on one's surroundings to do more with less.	Morris et al. (2013)	Effectual (Santos et al., 2019)
<b>Maintaining focus yet adapting</b>	The ability to balance current business goals and strategic direction with the need to adapt to the dynamic external environment.	Morris et al. (2013)	Effectual (Santos et al., 2019)

Consequently, the entrepreneurial competencies are identified by Morris et al. (2013) as: opportunity recognition and assessment, risk management, conveying a compelling vision, perseverance, creative problem solving, leveraging resources, “guerrilla skills”, creating value through innovation, maintaining focus yet adapting, resilience, self-efficacy, and developing networks. We summarize and describe these competencies in Table 1:

The competencies listed in Table 1, whether at the team- or individual-level, may impel different types of entrepreneurial behaviors or approaches to pursuing entrepreneurial opportunities (Baker et al. 2003; Santos et al. 2019), such as a more effectual or more causal behavioral approach (Lerner et al. 2018). In turn, construal levels frequently overlap with behavioral activities such as “planning/thinking behavior” and “active/experimental behavior” which closely aligns with causal and effectual approaches respectively (Chen et al. 2018). For example, Santos et al. (2019) suggest that the ability to convey a compelling vision, resilience and high self-efficacy or team-efficacy will likely encourage more causation based behaviors (i.e. having a planned outcome and selecting the means to achieve that outcome). At the same time, this work suggests that creative problem solving, creating value through innovation, adaptability and networking competencies are likely strongly related to a more effectual approach to entrepreneurial behavior (i.e. where the means are taken as set and an outcome is selected and strived for based on these means) (Santos et al. 2019; Sarasvathy 2001). According to the predictions of human capital theory (Becker 1993), and confirmed by empirical work (Morris et al. 2013; Gielnik et al. 2018; Biraglia and Kadile 2017; Krueger 1993), these competencies can be developed over time through engaging in the entrepreneurial process.

## **The interaction of cognitive elements at a team level**

### ***Team entrepreneurial passion (TEP), Team entrepreneurial competence (TEC) and shared cognition***

TEP is a team-level construct comprising of both the collective affect and identity of a team (i.e. “who are we”) (Cardon et al. 2017). While the value of investigating passion, identity and affect throughout the entrepreneurial process has been recognized (Mitchell and Shepherd 2010; Lewis et al. 2016), few

studies have explored TEP and how it transforms throughout the stages of the entrepreneurial process and impacts NVTs behaviorally. TEP involves how passionate the team as a whole feels about the venture or certain objects of the venture, yet in the nascent stages of a venture, passion at the individual level likely has a pronounced effect on TEP (Cardon et al. 2017), and greater understanding is required of how these differing identities interact throughout the process to form TEP.

Santos et al. (2019) introduced the concept of TEC, which refers to a team-level construct comprising the aggregate of team members' abilities regarding entrepreneurial activities, and has been suggested to be influential in the formation of identities (Rae 2006), and hence passion. Since individual-level entrepreneurial competencies facilitate the emergence of TEC, the team-level construct can be considered functionally and structurally equivalent to the individual-level construct (Santos et al. 2019). Furthermore, these competencies may lead to varying behavioral paths (Santos et al. 2019). In fact, the work of Santos et al. (2019) suggests that as team entrepreneurial experience (and concomitantly TEC) is gained, individuals are more likely to follow an entrepreneurial behavior approach that is experimental, taking more concrete actions based on the means available as opposed to a more abstract, "thinking" approach which entails planning and predicting a set outcome (Chen et al. 2018). Therefore, a key question is how functional would TEC be if the individual team members differed substantially between their competencies with one individual having a very strong future vision and another having the ability to adapt to current challenges? According to Santos et al. (2019), these competencies would combine to increase TEC and direct behavior, but the dichotomy between the behaviors and cognitions which these competencies espouse needs to be accounted for in NVT dynamics research.

Shared cognition refers to the "common understanding, congruent values and goals" of NVT members which facilitates effective communication, mitigates conflict and engenders cohesion (Chen et al. 2017). This mutual understanding is critical to forming NVT cohesion (Mohammed et al. 2010), which entails members' social proximity to each other and dedication to the NVT (Ensley et al. 2002). Thus, shared cognition appears to be the underlying mechanism driving the potential performance benefits of TEC and TEP. By increasing members' mutual understanding, shared cognition likely enhances the ability to coordinate behaviors and synthesize distinct competencies and passions within

the NVT (Swaab et al. 2007). Indeed, according to the predictions of Jin et al. (2017), shared cognition will significantly impact perceptions of a situation and the behavioral approach used on the basis of that situation. Furthermore, empirical work demonstrates that shared cognition facilitates similar interpretations of information, as well as joint expectations regarding the future and how to get there (Mohammed et al. 2010). Throughout the decision-making process, the NVT is required to deal with team conflicts and differing interpretations of the situation, reconciling their differences to maintain cohesion and facilitate performance (Ensley et al. 2002). A central research gap in the entrepreneurship literature is how cognitive differences among members of a NVT impact decisions, behavior and behavioral outcomes (Grégoire et al. 2011; Delgado García et al. 2015). Thus, the (CLT) enhances our understanding of how potential internal conflicts and differing interpretations occur, as well as how passions and competencies, which play a role through their impact on entrepreneurial behavior, tie into the process.

### ***Behavioral dynamics: Linking TEP and TEC through a construal perspective***

Construal levels reflect an individual's perceived gap (such as time, or likelihood,) between themselves and an outcome of interest (Wiesenfeld et al. 2017). The Construal-Level Theory (CLT) posits that construal levels vary from abstract and decontextualized (high-level construal) to concrete and contextualized (low-level construal), and that these construals are shaped by a variety of personal and environmental factors, which internally shape one's actions and behavioral approaches to their environment (Wiesenfeld et al. 2017). Thus, CLT is particularly fruitful for understanding individual differences in mindsets underlying strategic decisions (such as whether to focus on vision or implementation) (Reyt et al. 2016) and is also gaining favor as a tool to potentially account for team cohesion (Chen et al. 2018; Wiesenfeld et al. 2017). A low-level construal orients individuals toward focusing on implementation and what can be attained in the short-term, whereas a high-level construal orients individuals towards more valued distance goals with less consideration of the practicalities thereof (Wiesenfeld et al. 2017).

We suggest that the entrepreneurial competencies and passions exhibited by individual team members will shape these construals. While scholars have yet to empirically investigate this notion,

there are conceptual linkages which can guide the present research. For example, if individual-level entrepreneurial passions, which are caused by identity and affect, are centered more around achieving higher-level desires, such as being a successful entrepreneur and exploiting many opportunities, it appears likely that these passions will drive higher-level construals. Similarly, individual-level competencies (refer to Table 1 for the behavioral approaches) related to recognizing new opportunities, self-efficacy, perseverance, risk management and having a compelling vision should drive higher-level, more abstract construals which lead to abstract behaviors like planning (Chen et al. 2018). On the other hand, social interaction and networking, value creation and creative problem-solving competencies should drive more concrete construals, which lead to an ‘action’ focus behavior where the focus is on what can be implemented in the near future to establish the business. Similarly, passion which is centered around gaining independence and financial security appears likely to drive low-level, concrete construals. On the other hand, passion which is centered around gaining status as a successful founder appears to drive high-level, abstract construals.

#### ***NVT dynamics: Linking construals to behavioral congruence and outcomes***

As it is evident that through a construal process, varying passions and competencies may drive varying behaviors, we suggest two main outcomes of differing construals: behavioral incongruence and, ultimately team conflict. Wiesenfeld et al. (2017) suggest that NVT conflict regarding the appropriate strategic actions of the business can be mapped directly onto the CLT terms of temporal and hypotheticality distance respectively. Temporal distance refers to the perceived time gap between an outcome and oneself, and hypotheticality distance refers to the perceived probability an outcome will materialize or happen (Wiesenfeld et al. 2017). CLT asserts that individuals’ perceived gaps are linked to the types of actions undertaken (Vallacher and Wegner 1987). These terms refer to varying perceptions of psychological distance and are seen as drivers of variance in construal (Liberman and Trope 1998). Previous work has suggested that differences in task or functional background can create variance in psychological distance within groups (Randel and Jaussi 2003). In this regard, this research finds that competencies and passion can engender variance in psychological distance and, hence, construals and thereby influence team dynamics.

At the same time, construals of NVT members which are aligned can lead to greater TEP, common understanding and goals between NVT members (Chen et al. 2017) and the tendency to achieve greater synergies from TEC (Ensley et al. 2002; Chen et al. 2017). Therefore, we propose that it is only through these aligned construals that collective cognition, TEP and TEC are espoused. These collective cognitive aspects are best demonstrated through behavioral congruence (i.e. working in the same direction) between the NVT members. It is theorized that this process of achieving greater coherence in behavior (i.e. working in the same direction) will lead to improved behavioral outcomes (Chen et al. 2017). Empirically establishing this linkage between passions, competencies, construals, behaviors and behavioral outcomes is a central task of our case analyses.

***Conceptual model: A coherence process perspective of the NVT***

Figure 1 demonstrates that the starting point is the formation of the NVT, with each individual – at this initial idea generation stage – having their differing behaviors in terms of their own entrepreneurial identity and affect views. Their views involve what they think they should do to successfully progress through the entrepreneurial process to the point that they eventually exploit an opportunity. As the preceding literature review illustrated, differing entrepreneurial identity and affect influences entrepreneurial passion and individual passion levels influences ECs. These entrepreneurial passions and competencies shape individual-level construals, which are their perceptions or definitions of the situation which they subsequently enact (Wiesenfeld et al. 2017). Table 1 illustrated that the ECs may impel different types of behavioral approaches (e.g. effectual and causational) to pursuing entrepreneurial opportunities (Baker et al. 2003; Santos et al. 2019). The CLT allowed us to develop a model of the nexus between individual-level passions, competencies and the development of collective cognition throughout the entrepreneurial process, starting at the most nascent stages of the process (e.g. the initial idea generation stage). As such, through the impact on varying construals, this conceptual model shows how cognitive differences among members of a NVT impact decisions, behavior and behavioral outcomes (Grégoire et al. 2011; Delgado García et al. 2015). Construal levels drive varying behaviors at the individual-level, ranging from abstract, thinking-type behaviors to concrete doing-type behaviors, which ultimately influence the behavioral congruence of the NVT members and the degree

to which functional behavioral outcomes can be achieved at the team-level. Figure 1 illustrates this conceptual model.

Figure 1 further highlights that if there is alignment between the construals, this will manifest as behavioral congruence at the team-level, due to a sense of shared cognition, TEC and TEP which, ultimately, impacts the team-level behavioral outcomes achieved and, hence, the performance of the NVT. The performance of the NVT (and venture) acts as a feedback loop which impacts individual entrepreneurial competencies, identities and affect of the founders (which in turn influences entrepreneurial passions), resulting in perpetuation of the process. This feedback loop is supported by research highlighting the path-dependent nature of entrepreneurial passions and competencies whereby engagement in activities and performance on those activities provides the feedback which is central to the formation and development of one's self-identity (Giménez Roche and Calcei 2020; Cardon et al. 2009), as well as the refinement of one's competencies (Morris et al. 2013; Gielnik et al. 2018; Biraglia and Kadile 2017; Krueger 1993). In sum, within this coherence process, it is theorized that different passions and competencies are drivers of different construals and behavioral paths. These differing behaviors impact the behavioral outcomes achieved, such as the successful or unsuccessful development and articulation of a refined concept for a new venture (Vogel 2017; Teague and Gartner 2017). Feedback from these behavioral outcomes (e.g. team performance) acts as a feedback loop through engagement in the entrepreneurial process, which results in a gradual alignment of individual founders' construals and behaviors. Over time, depending on the NVT, engagement through this process should lead to a sense of collective cognition, TEC and TEP, which should manifest in greater behavioral congruence and improved behavioral outcomes. From this coherence process it can be deduced that the overall performance of the NVT influences the behaviors and identity of the individual team members which in turn has an influence on the NVT behavior.

## Methods

### *Case and empirical setting*

Joining and extending work on NVTs, our proposed framework provides an explanation of the formation of NVT cognition and behavioral outcomes. Still, in order for our contribution to be useful, it must also be grounded in reality. This research sought to understand how NVTs develop a collective cognition, comprising of shared cognition, TEP, TEC, and how this impact behavioral outcomes throughout the entrepreneurial process, starting at the most nascent stages. Given limited theory about, data on, and high complexity regarding, this question, an abductive approach was used to understand the unexplored dynamics regarding NVTs and is appropriate for investigating highly contextualized patterns of behavior to induct novel elements of theory (Corbin and Strauss 2015). In using this approach, we searched for extreme cases which would more visibly demonstrate the dynamics being investigated compared to what might be expected in other, more typical contexts (Eisenhardt et al. 2016). Applying this criterion, a conceptual model has been abductively constructed based on theoretical deduction as well as observational evidence gathered inductively from the cases of two newly formed NVTs. Consistent with the ideas of replication as the gold-standard for building validity into theoretical findings (Lucas 2003; Hedström and Wennberg 2017), the two case studies were conducted to add validity to the conceptual model and identify any potential differences in the proposed explanatory mechanisms due to contextual variation between cases. The teams' creation were observed at the start of the development of an initial venture concept to the exploitation of the opportunity and eventual stabilization of the initial venture operations, six- and 18 months later respectively (Eisenhardt and Graebner 2007).

Each NVT consisted of three founders. One aimed to start a bakery within a university incubation program in Lesotho, while the other aimed to start a business in the fintech industry in a university venture concept incubation program in South Africa. These cases and empirical settings were suitable due to their theoretical relevance to the phenomenon under investigation. Case studies are commonly applied in management research to investigate extreme exemplars which have the potential to uncover observational gaps that evade most deductive work and which may more transparently (i.e.,



more visibly) bring to light theoretical insight into the how and why of NVT dynamics (Eisenhardt and Graebner 2007; Yin 1994; Eisenhardt et al. 2016).

In particular, the following aspects created rich cases for more visible theory building: (1) Each of the three entrepreneurs had a relatively limited base of entrepreneurial know-how and competencies which enabled us to more clearly observe their competency development (or lack thereof). As stated by one of the founders at the start of the incubation process, “[We] lack the skills of dealing with accounts [or finances] and we struggle with it.” Hence, they started the business within an incubation setting to gain support and the necessary competencies. (2) Incubators are particularly fruitful settings for investigating the development of entrepreneurial competencies and entrepreneurial passion given the typical high-intensity of the programs and the focus on imparting pragmatic entrepreneurial skills and identities to the incubatees (Theodorakopoulos et al. 2014). (3) The NVTs were formed upon induction into the incubator. Thus, the development of TEC, TEP and team cohesion could be examined from inception. (4) Each NVT had a relatively rough idea of their venture opportunity. In particular, the South African NVT did not even have a fixed venture concept decided on yet, rather having three separate ideas from each member which they were unable to decide on. This provided a significant opportunity to examine the development of NVT dynamics at the most nascent stages of business venturing (i.e. from the initial development of a venturing concept) (Vogel 2017). (5) South Africa and Lesotho are challenging and uncertain settings from which to do business (World Bank 2019; Herrington and Kelley 2012) and this places additional strain on NVTs in terms of developing team coherence (Chen et al. 2017), and an appropriate behavioral approach (Townsend et al. 2018). Table 2 describes the sample, including the founders, their previous entrepreneurial experience, their educational background and the number of interviews conducted. Throughout, names and inconsequential details about the founders have been changed to maintain confidentiality.

**Table 2: Founder descriptions of the NVT**

Case	Founder	Previous entrepreneurial experience	Educational background	Interviews conducted throughout the entrepreneurial process (average duration of 1 hour per interview)
<b>FoodServe</b>	Phoebe	Yes, previously started a restaurant with other team members	Undergraduate degree holder- food sciences	<ul style="list-style-type: none"> <li>• Interview 1-3: At the formation of the new venture team</li> <li>• Interview 4-6: Six months after the formation of the NV</li> <li>• Interview 7-9: 18 months after the formation of the NVT</li> </ul>
	Nora	No	Undergraduate degree holder- food sciences	
	Mia	No	Undergraduate degree holder- food sciences	
<b>FinStar</b>	Martin	No	Accounting student	<ul style="list-style-type: none"> <li>• Interview 10-12: At the formation of the new venture team</li> <li>• Interview 13-15: Three months after the formation of the NVT</li> <li>• Interview 16-18: Six months after the formation of the NVT</li> </ul>

**Data Collection**

The primary method of data collection involved semi-structured interviews with members of the NVTs (n=9 per case; total n=18). All interviews were performed at the NVT’s primary operating premises (i.e. university campuses in Lesotho and South Africa) and were conducted at the individual level, lasting approximately one hour each. Since this research was interested in each individual members’ views of the NVT, interviews were conducted individually and further limited the risk of group effects limiting the views of certain members (Bell et al. 2018). The interviews were transcribed, and notes were taken throughout the process. While we adjusted interview protocols after each wave of data collection to more richly explore emerging themes (Bell et al. 2018), the interviews generally focused on five major themes: (i) Personal background; (ii) Entrepreneurial shared cognition; (iii) Entrepreneurial competencies; (iv) Entrepreneurial passion, and; (v) Team coherence. These themes were captured as they unfolded, allowing us to capture the progression or development thereof throughout the nascent stages of the entrepreneurial process, and avoid generating retrospective interpretations that might occur if someone reported post-hoc on these aspects. A neutral tone was maintained throughout the interviews, with the aim of minimizing potential social desirability bias in interviewees’ answers (Bell et al. 2018). Later interviews became somewhat more structured as team

dynamics were explored. For example, participants were asked to describe any difficulties they faced in their day-to-day activities with regard to the NVT.

These data were supplemented with relevant documentation and regular, unobtrusive observations. Observations comprised of following the NVT and generally observing them working on the business, their team dynamics and how they engaged with various stakeholders (e.g. potential funders, customers and suppliers). These observations, while allowing us to get a greater sense of the NVTs' collective cognition, was most useful in understanding the behaviors undertaken by the teams and the outcomes they achieved. Consistent with the approach used by Mueller et al. (2012), behaviors were observed and captured into two related categories: (1) the ultimate purpose or function of the behavior; and, (2) whether the behavior employed a causal versus effectual approach. Furthermore, we gathered relevant documentation from various sources, including member resumes, academic histories, the business plans prepared by the participants, email correspondence between team members as well as with various stakeholders, and news articles about the food service and fintech industries in Lesotho and South Africa respectively. Taken together, these secondary sources enabled us to validate members' descriptions and provided a richer context for understanding their competencies, passions, team dynamics and behaviors. Furthermore, since behavioral outcomes refer to the immediate and measurable results of behavior (Teague and Gartner 2017), these outcomes were assessed through both observation and relevant documentation. A particularly important outcome is the development and articulation of a business concept for a new venture (Vogel 2017), which can be evaluated through written and observational data for its content, quality and congruency between members (Teague and Gartner 2017). Therefore, this behavioral outcome is the central focus of this study.

### ***Data Analysis***

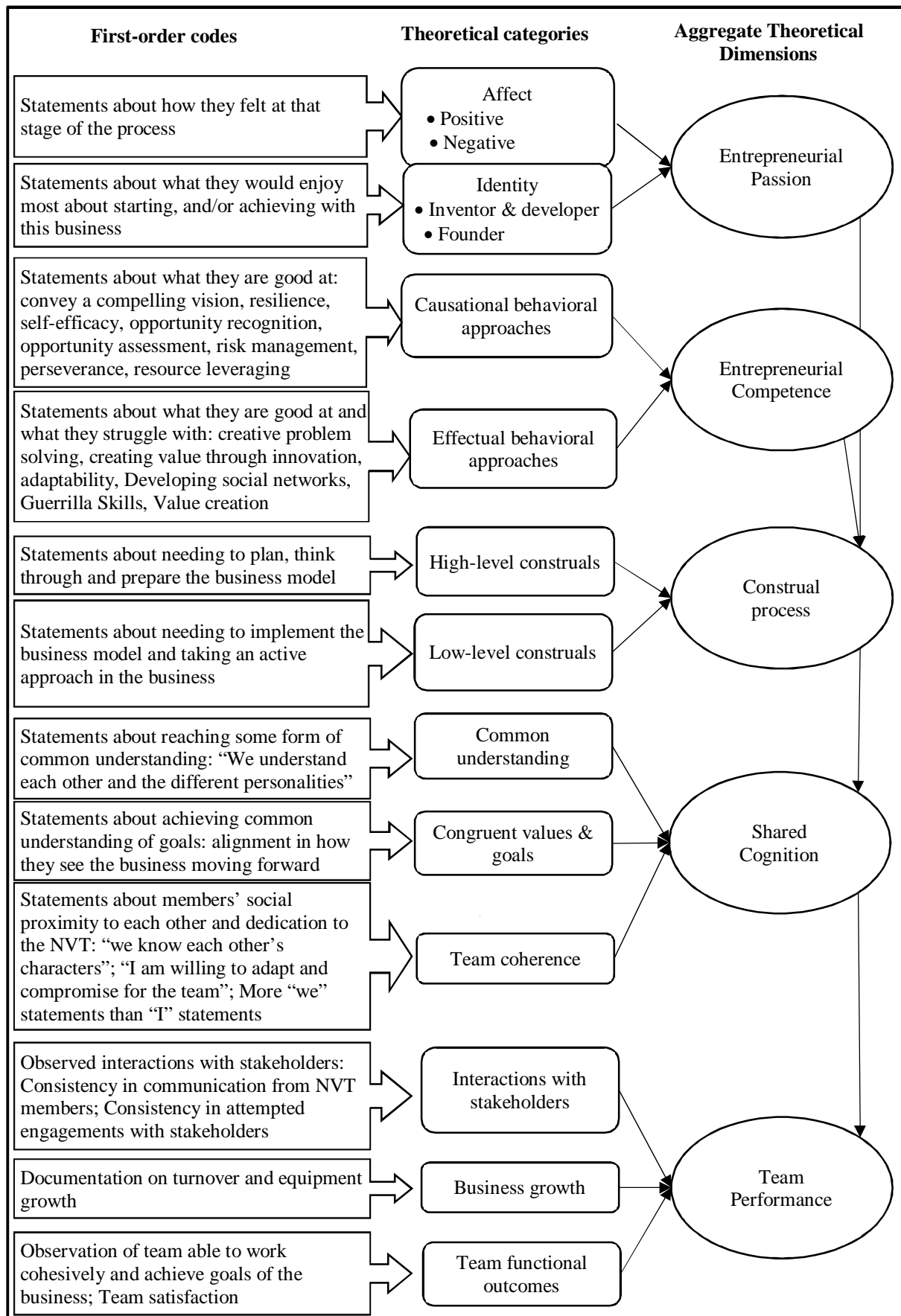
Data were analyzed in an iterative fashion in accordance with established procedures for abductive, theory-building research (Bell et al. 2018). As data were gathered, case reports were written which began the process of iteratively going between the conceptual model and the observational evidence. This analysis utilized three major steps.

*Step 1: Creating provisional categories and first-order codes.* We began by identifying statements regarding our informants' perceptions via open in vivo coding and then drawing on recurrent statements to form provisional categories and first-order codes (Corbin and Strauss 2015). We recorded provisional categories revealed in each interview at each point in time and revisited data numerous times to revise each category.

*Step 2: Integrating first-order codes and creating theoretical categories.* Patterns in the data were documented through the consolidation of each wave of data for each case and allowed the construction of provisional theoretical explanations (Eisenhardt and Graebner 2007). Early in the process, these concepts and patterns were identified in the data and ultimately formed the core ideas developed in this paper regarding the integration of work on TEC, TEP and shared cognition. For all three cognitive elements, the congruency of members on these elements were used as a means to assess the transformation of individual-level to team-level constructs. For example, individual-level passion was considered to form team-level passion only once all members passions aligned to produce congruency in behaviors.

*Step 3: Delimiting theory by aggregating theoretical dimensions.* Following the generation of theoretical categories, we linked them to their underlying theoretical dimensions with the aim of understanding how different categories integrate and form a cogent framework. For example, as founder construals are central to our theory, a relatively elaborate explanation of the coding and development of this concept is provided. The adoption of a construal theory lens, generated codes for various "perceptions" of the direction of the NVT's business which were later relabeled as "construals". These open in vivo codes included "visionary mindset" and "implementor mindset" which were relabeled "abstract" and "concrete." These codes frequently overlapped with passion codes, competency codes and other behavioral codes such as "planning/thinking behavior" and "active/experimental behavior." Initially, few connections were found between these codes, but as the process continued, patterns in the data emerged. Through the discovery of CLT (Liberman and Trope 1998), our prior coding of perceptions were observed as mapping directly onto construals of differing psychological distance, such as social distance, hypotheticality distance and temporal distance. Following the identification of this potential explanatory framework (i.e. CLT) we reassessed the data's fit/misfit with our emerging

**Fig. 2:** Overview of Data Structure



theoretical explanation (Corbin and Strauss 2015). Figure 2 summarizes this process; from the development of our first-order categories, to the theoretical categories, and, finally, the overarching theoretical dimensions.

### **Case findings: Illustration of the conceptual model elements**

Each concept and the connecting mechanisms are theorized and illustrated, using data from the cases. Table 3 summarizes the respondents’ accounts of the formation of this NVT coherence process and gives exemplary quotations and observations regarding each model element and its progression during engagement in the nascent stages of the entrepreneurial process. These nascent stages of the entrepreneurial process are represented by Wave 1: Venture idea generation; Wave 2: Venture concept evaluation and incubation; and Wave 3: Venture opportunity exploitation. For identification purposes, the food service NVT is named FoodServe and the Fintech NVT, FinStar.

**Table 3: Theoretical model elements inducted during the entrepreneurial process**

<b>Case</b>	<b>Element</b>	<b>Wave 1: Venture idea generation</b>	<b>Wave 2: Venture concept evaluation and incubation</b>	<b>Wave 3: Venture opportunity exploitation</b>
<b>FoodServe</b>	Formation of TEP	A lack of mutual passion or TEP. Two members were passionate about building independence while Phoebe was passionate about exploiting new opportunities.  Phoebe was excited to “See the business grow.” Norah and Mia were passionate to establish the venture to meet their independence and financial security needs.  Norah: “[I am excited about] being my own boss and closing the business when I want [to meet family obligations].”	Same as wave 1. Passionate about different business outcomes, growth vs lifestyle business  Observed conflict between members in terms of identities and what drives them and their business.  Phoebe: “[the business] is not working well yet, we need to do trials on the product to take it to market”	Increased alignment of passions between NVT members. Collective passion for successfully leveraging resources to meet demand and exploit current opportunity recognized  Phoebe adjusted towards a less growth-oriented passion and more towards establishing initial business operations: “I feel that the business has potential. [I am] hopeful that it is moving to success, we are selling on a smaller scale... We are selling and the market response is positive towards the products.”
<b>FinStar</b>	Formation of TEP	Alignment of passions which initially brought	Same as wave 1. Passion congruence	Same as wave 2 but with increased focus

Case	Element	Wave 1: Venture idea generation	Wave 2: Venture concept evaluation and incubation	Wave 3: Venture opportunity exploitation
		the NVT together. All members were passionate about becoming successful entrepreneurs and were consistently “identifying new opportunities”.	towards an inventor and developer focus.	towards starting a single high-growth business
		Martin spoke for the team when he said: “we are passionate about being entrepreneurs but can’t decide whose idea is better to run with”.		Warden: “After joining the incubator we have come together strongly as a team and achieved focus in working towards our goal”.
<b>FoodServe</b>	Formation of TEC	Phoebe was high on entrepreneurial self-efficacy, perseverance high, and opportunity recognition skills. On the other hand, Mia and Norah were confident communicators-possessing strong social interaction or networking competencies.	Competency weaknesses begin to get addressed. Phoebe develops improved creative problem-solving skills, social interaction skills and maintaining focus yet adapting. Phoebe: “My personality has changed, I am an argumentative person and now having partners, when see things differently, I am more adaptable now because we don’t always see things the same.”	Same as wave 2, but increased development of competencies. Each member has competencies which they are particularly skilled at, yet, previously underdeveloped skills are developed which sees greater alignment in NVT.
		Norah: “I am a good communicator and have personal skills and work together.”	Mia and Norah developed improved basic business know-how. Mia: “[I have] learned to keep records, see the business practically and do [implement] it.	Mia: “I never thought of myself as being a businesswoman but now I can see it.” Phoebe: “I have learned so much. Business success does not come easily, it comes slowly and teaches us patience. I have learned that I should know the market and if I don’t, I will waste my time.”
<b>FinStar</b>	Formation of TEC	Observations: Team members inherently differed in their competencies. Martin was a confident communicator, able to compellingly communicate his venture concept, while the other two members	Improved development in core entrepreneurial skills, such as opportunity assessment skills.	Same as wave 2, but enhanced ability of the NVT as a collective to communicate a single, unified and compelling vision for their venture.

Case	Element	Wave 1: Venture idea generation	Wave 2: Venture concept evaluation and incubation	Wave 3: Venture opportunity exploitation
		lacked that skill, and had low entrepreneurial self-efficacy.		
		Warden: "I am here to gain the business expertise. I don't have the business knowledge."	Martin: "Already I am better understanding whether a business is viable."	Observation: Improvement in describing venture concept. Wave 1- three distinct venture concepts were proposed, and the team was indecisive on which to pursue. Wave 3- team as a whole communicated a single business model.
<b>FoodServe</b>	Construal process	Phoebe: High-level construals Norah and Mia: Low-level construals	Same as wave 1, but Phoebe begins to realize the conflict that her alternative perspective is causing and begins to lower her construals.	Greater alignment in construals towards lower level, more concrete, implementational aspects.
		Mia: "'We need baking sheets, mixing bowls and containers... We need record keeping [software], calculators, business stamps and a teller to keep money.'"	Phoebe: "Everybody is working very hard and very passionate, but in most cases, we don't see things similarly. [I am learning that] things will not always go your way."	Phoebe's focus on implementing the current business: "[I am] Not busy with the other business [opportunities]. I want to focus on only this business.... A challenge for us is balancing everything, as it is only the three of us and we have to produce, purchase stock, sell, advertise, keep books, writing report and it is just on us."
<b>FinStar</b>	Construal process	Martin: Low-level construals Nicky and Warden: High-level construals Observation: Martin provided financial projections and key implementational goals for his venture concept while the other two did not.	Same as wave 1, but other members begin to lower their construals to align with Martin. Nicky: "Yes, I think Martin's idea is more realistic."	Same as wave 2, but further alignment of construals. Warden: "We have agreed on pursuing Martin's idea and are currently testing our minimum viable product with our target market."
<b>FoodServe</b>	Behavioral congruence	Low Observation: Phoebe is searching for the best market to target and wants to further research the market; the other two members are	Moderate Observation: Phoebe is working on the business plan and marketing the business; the other two members	High Observation: The NVT is working towards the common goal of producing quality products and "meeting



Case	Element	Wave 1: Venture idea generation	Wave 2: Venture concept evaluation and incubation	Wave 3: Venture opportunity exploitation
		looking to acquire the equipment needed to start the business. 'We': 'I' ratio=0.298:1	are looking to acquire more equipment. 'We': 'I' ratio=1.80:1	demand" from the market. 'We': 'I' ratio=1.91:1
<b>FinStar</b>	Behavioral congruence	Low Observation: Three different venture concepts pitched at incubator. Each member of the NVT pitched their own idea in an independent fashion. 'We': 'I' ratio=0.120:1	Moderate Martin: "We still are struggling to decide on who's idea is best... Warden and I are working on my idea and Nicky is still exploring hers."	High Observation: NVT communicates a unified venture concept as a business pitch. NVT also jointly developed a basic product to test how the market reacts to it. 'We': 'I' ratio=2.87:1
<b>FoodServe</b>	Behavioral outcomes	Poor outcome achievement due to each member working in a different direction. Observation: Few outcomes achieved as NVT members were unable to agree on what to do. Phoebe wanted to analyze the market while Norah and Mia wanted to acquire equipment.	Same as wave 1, but improved outcomes. Phoebe: "It [the NVT] is not working well yet, most of our time we are doing trails working on the product to take it to the market."	Improved outcomes Phoebe: "We are easily working together and know the different personalities... I have changed a lot because I learned how to adapt and compromise." Norah: "... we resolve them [challenges] quickly... I can work with both of them very well."
<b>FinStar</b>	Behavioral outcomes	Poor outcome achievement due to each member working in a different direction. Observation: Multiple pitches with each business concept pitch lacking detail and viability.	Same as wave 1, but improved outcomes.	Improved outcomes Observation: NVT was able to pitch a compelling venture concept and begin testing it in the market.

***Affect, entrepreneurial identity, passion and competencies at an individual level: NVT cases***

Scholars have begun to theorize the object of entrepreneurial passion (Cardon et al. 2009), and in this research, a passion for independence or growth were inducted as two such objects. These objects of passion appear to drive the behavioral patterns and perceptions of NVT members, thus closely aligning with social psychological theories of identity and passion which propose that individuals behave in ways that are consistent with their identities (Burke 2006) and objects of passion (Cardon et al. 2017).

In the early stages of starting the business, the NVT members differed regarding their objects of passion. For example, Phoebe from FoodServe enacts the role of an “inventor and developer” identity (Cardon et al. 2009), where she is passionate about exploiting new opportunities and achieving growth. However, she lacks focus and is unwilling to commit to one business endeavor. In contrast, the other two NVT members have a strong passion for independence. Both enact the role of a “founder” identity (Cardon et al. 2009), which is passionate about the activities which will establish the venture and meet their need for independence and financial security. At the start of forming the NVT, the members were asked what they would enjoy most about starting, and/or achieving in their business. Phoebe’s answer exemplifies her growth passion at this stage: “Seeing the business grow.” On the other hand, Norah’s answer exemplifies her independence passion at this stage: “Being my own boss and closing the business when I want [to meet family obligations].”

In the early stages of starting the business, the NVT members differed regarding their competency levels. While these competencies still differed by the exit interview, it is observed that weak competencies were improved through engaging in the entrepreneurial process.

### **Team level interactions: NVT cases**

#### ***Team Entrepreneurial Passion: NVT cases***

Recall that entrepreneurial passion comprises of the aggregate of two factors: The collective affect and the collective identity of a NVT (Santos and Cardon 2018). Later on in the venturing process, passions for the venture appeared to more closely align between the team members where there was a focus on establishing and developing the venture in its current position. This alignment is seen by Phoebe’s adjustment towards a less growth-oriented passion:

“I feel that the business has potential. [I am] hopeful that it is moving to success, we are selling on a smaller scale... We are selling and the market response is positive towards the products.

In contrast, the NVT from FinStar appeared to align in their common passion for becoming successful entrepreneurs. Yet, there remained conflict in behaviors and a vision for their business which suggested alternative factors such as competencies at work. To illustrate:

“...we have different ideas, but we teamed up because [we] all dream of being successful entrepreneurs and are interested in the technological space.”-Martin

***Team Entrepreneurial Competencies: NVT cases***

In FinStar, for example, Warden lacked the ability to assess his venture concept objectively. However, by the exit interview he recognized the weaknesses thereof and indicated that:

“I think I now understand why my idea won’t work and we should go for Martin’s.”-

Warden

In FoodServe, for example, Phoebe expressed competencies in recognizing and assessing opportunities and experienced a high degree of entrepreneurial self-efficacy, particularly given her prior experience running a restaurant. In contrast, Norah and Mia did not have that prior entrepreneurial experience and thus lacked the feelings of entrepreneurial self-efficacy expressed by Phoebe. However, Norah and Mia started out as highly confident in their social interaction skills. By going through the entrepreneurial process, Mia and Norah developed greater entrepreneurial self-efficacy, while phoebe develop better communication skills. To illustrate:

“I never thought of myself as being a business woman but now I can see it... I have learned that there are processes in business, and you need specific skills in business otherwise the business will fail, and I have these skills now.”-Mia

“I have learned so much. Business success does not come easily, it comes slowly and teaches us patience... I learned how to adapt and compromise, in this business we are three different people and have equal rights and I have to remind myself about that. One of us have to compromise and it should be me. I have to adapt even if I don’t agree.”-Phoebe

***Linking TEP and TEC through a construal perspective: NVT cases***

In the early nascent stages of the NVT formation for FoodServe, Phoebe leaned heavily towards higher-level, more abstract construals, while the other team members leaned more towards low-level, concrete construals. She focused more on goals of growth and exploiting numerous opportunities. She was

focused on concepts such as finding a profitable market and being better than competitors. This can be seen when she says: “[I would enjoy] seeing the business grow.”

In contrast, Mia and Norah focused on concrete, implementational aspects. They were interested in establishing the business as quickly and effectively as possible and focused on aspects like acquiring suppliers and the necessary manufacturing equipment. This mindset is exemplified by the following quotes:

“We need baking sheets, mixing bowls and containers...We need record keeping [software], calculators, business stamps and a teller to keep money.”- Mia

A similar pattern was observed for FinStar. Martin exhibited lower-level construals, while Nicky and Warden higher-level construals. This can be illustrated by Wardens interpretation of their NVT’s venture concepts: “Yes, I think Martin’s idea is more realistic.”

### ***Linking construals to behavioral congruence and outcomes: NVT cases***

In the early stages, the team members had differing perceptions of what behaviors and strategic actions should be taken. The NVT in FinStar exhibited an extreme level of behavioral incongruence when they pitched their separate venture concepts in an incubator program, almost as if they were not part of a team pursuing a single vision. Similarly, in FoodServe, Phoebe leaned towards planning/thinking behavior and felt that the business was not yet ready to go to market, she wanted to refine the product and strategic plan of the business to ensure that when they do enter the market, they become a leader and grow significantly:

“[The NVT] is not working well yet, most of our time we are doing trials working on the product to take it to the market... [I am] worried about selling it in the big market. No labelling yet and packaging... [We] need to determine the shelf life of the products in the packaging.” - Phoebe

On the other hand, Mia and Norah lent towards concrete actions and wanted to get the product out to customers as soon as possible and get feedback.

“Now that the customers are willing, and the demand is high we have to stock our product in bulk. We have a problem of bookkeeping; it takes time and challenges us.” - Mia

In the early formation stages, the team members' differing construals and behavioral approaches confirmed the conceptual model's theory that construals are key drivers of team conflict and cohesion. For example, Phoebe mentions how the early stages of the NVT formation were fraught with conflict and disagreement:

“We are quite different, but we are willing to make this work and very committed. Everybody is working very hard and very passionate, but in most cases, we don't see things similarly. Things will not always go your way.” - Phoebe

Later in the entrepreneurial process, these varying construals aligned between the team members and a level of coherence in TEP and TEC is achieved. As earlier highlighted by Chen et al. (2017), this is best demonstrated through behavioral congruence (i.e. working in the same direction) between the NVT members. While this is also demonstrated in the data through collective phrases such as an increase of the ratio between “we” statements and “I” statements of 300% for FoodServe (refer to Table 3), it remains best demonstrated through behavioral congruence. To illustrate, FinStar moved from pitching three poorly prepared venture concepts to one single, well prepared concept. Furthermore, by the exit interview the NVT of FoodServe was working towards a common goal and according to Mia, when faced with challenges:

“... we [are able to] resolve them quickly... I can work with both of them very well.”

Ultimately, these improved behavioral outcomes can be linked to improved team performance. For example, FinStar was able to communicate in a unified manner to stakeholders by the exit interview. This performance improvement is exemplified by the following quotes taken from the exit interview:

“The partnership is good, and it has improved. We know each other now and we understand each other. We are easily working together and know the different personalities. No big fights or misunderstandings.”- Phoebe (FoodServe)

“We are working better [together] now. I think it's because we [now] have the same vision.”-Nicky (FinStar)

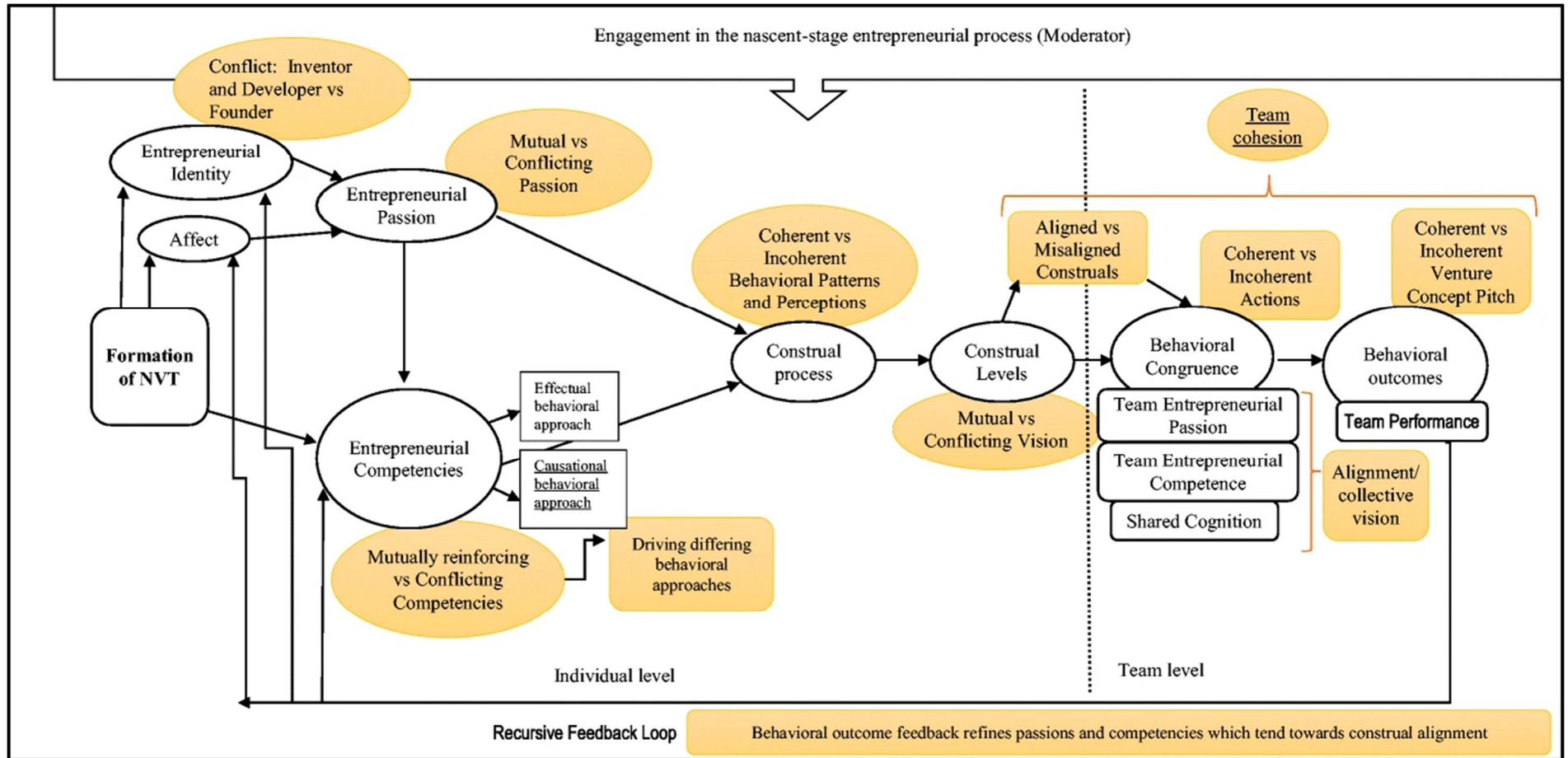


Fig. 3: Updated conceptual model of the NVT coherence process

### ***Updated conceptual model: NVT cases application to the coherence process***

Based on the above discussion of the findings and as indicated in Table 3, the NVT coherence process and how it relates to the conceptual model are summarized in this section. Furthermore, an updated conceptual model with these case applications is illustrated in Figure 3. Based on the cases, several new insights can be added to the conceptual model.

The nascent stages of the entrepreneurial process are represented by Wave 1: Venture idea generation; Wave 2: Venture concept evaluation and incubation; and Wave 3: Venture opportunity exploitation. In these waves, the gradual formation of team coherence was observed. In wave 1 and 2, there was a general lack of mutual passion between members, with each exhibiting vastly different interests and identities at the individual-level. Furthermore, entrepreneurial competencies at an individual level inherently differed during Wave 1, the initial venture idea generation wave. This results in directly observable conflict between members in terms of the abstractness of their construals and what drives them and their vision for the business during Wave 2. That is, during Wave 1 and 2, individuals tend to exhibit conflicting construal levels, some have low-level construals, oriented towards implementation, whereas others have high-level construals oriented towards more abstract and distant goals. Furthermore, this conflict results in behavioral incongruence, a lack of coherence and, ultimately, poor behavioral outcomes.

However, by engaging through this process with the NVT, behavioral and performance outcome feedback is received which provides the input required to address competency weaknesses and begin aligning NVT members' passions. Thus, during wave 3, an increased alignment of passions between NVT members is observed. Furthermore, there is an increased development and alignment of competency levels. This results in greater alignment in construals of the NVT towards lower level, more concrete, implementational aspects of the venture as members realize the practical challenges of their venture concept. during Wave 3. The tendency for these construals to cohere between members leads to enhanced behavioral congruence of the NVT and improved behavioral outcomes. For example, by wave 3, one NVT demonstrated enhanced ability, as a collective, to communicate a single, unified and compelling vision for their venture. In waves 1 and 2, behavioral incongruence resulted in three

different venture concepts pitched at incubator, which resulted in poor outcome achievement due to each member working in a different direction. Yet by wave 3 the greater congruence resulted in a unified venture concept as a business pitch (behavioral congruence creates team cohesion), which lead to improved outcomes due to working together towards a common goal.

From the above we observe that the transition of the individual NVT members with differing behaviors to operating as a coherent team within the NVT takes place through engagement in the entrepreneurial process and progression through the theorized model elements, with some level of coherence achieved between Wave 2 and 3. Furthermore, we observe that CLT and construal levels provide the unifying framework from which to form NVT outcome predictions regarding the joint effects of the, seemingly disparate, TEP and TEC constructs. Construals explain varying behaviors at the individual-level, ranging from abstract, thinking-type behaviors to concrete doing-type behaviors, which ultimately influence the behavioral congruence of the NVT members and the degree which functional behavioral outcomes can be achieved at the team-level.

## **Discussion and conclusion**

The two cases in this paper were used for theoretically building and more richly illustrating our conceptual model which suggests that the entrepreneurial competencies and passions of individual entrepreneurs can drive differing construals. These construals inform NVT cohesion and conflict throughout the nascent stages of the entrepreneurial process. Therefore, this paper indicates a way of integrating the literature on team cognition (Chen et al. 2017), TEP (Cardon et al. 2017), and TEC (Santos et al. 2019) through CLT (Lieberman and Trope 1998), thus providing a more holistic view of NVT dynamics. This research thus provides several novel insights into NVTs from a theoretical and practical perspective. Firstly, this paper abducts a useful conceptual framework from which to understand the joint role of TEP, TEC and shared cognition on NVTs during the nascent stages of the entrepreneurial process (Bell et al. 2018). This model suggests that entrepreneurial passions and competencies shape individual-level construals and this behavioral enactment can be analyzed at the team-level in terms of its degree of congruence which, ultimately, impacts the team-level behavioral



outcomes achieved and, hence, the performance of the NVT. More specifically, this model theoretically contributes to understanding how CLT can link these seemingly disparate constructs and bring parsimony to understanding team dynamics (Chen et al. 2018). The data from the cases illustrated that the NVT started out with different personalities, passions and competencies and had to adapt to each other through a dynamic, iterative process of engagement to ensure team coherence and a level of congruence in the strategic behaviors taken. From a practical perspective, this updated conceptual model thus holds promise as a pragmatic tool for understanding how to form new teams and manage their performance at the most nascent stages of the entrepreneurial process.

Secondly, while CLT has typically been investigated at the individual level (Wilson et al. 2013), this paper explores this theory (i.e. construal levels) at both the individual as well as the team-level. In particular, Chen et al. (2018) began to suggest that differences in construal level impact team dynamics and this research builds on their work to show that certain drivers of differing construal levels result in either more abstract, thinking and planning-type behaviors versus concrete, doing-type behaviors. Indeed, the two NVT cases illustrated that through construals, some entrepreneurial passions and competencies are linked to abstract, thinking and planning-type behaviors while others are linked to concrete, doing-type behaviors. From a practical perspective, this could inform the management of distinct behavioral approaches in an NVT context. Specifically, at the early nascent stages of NVT, formation could be informed by individual team members having a combination of effectual passions and competencies which drive low-level construals (concrete behaviors) and causal passions and competencies which drive high-level construals (abstract behaviors). As the team moves through the entrepreneurial process, an alignment of construals occurs which results in a collective cognition, TEC and TEP and is demonstrated through greater behavioral congruence and improved outcomes.

Finally, this research demonstrates that varying identities and competencies impact construals and the alignment thereof influences behavioral congruency and outcomes achieved. Specifically, differences in construal level create conflict in entrepreneurial behavior which hinders NVT behavioral outcomes while congruency in construal level enables NVT coherence and performance (Chen et al. 2018). To this end, our model facilitates understanding of how to manage NVT dynamics and performance through accounting for varying team construals which are driven by varying passions and

competencies. These insights are important for business incubators, NVTs and various entrepreneurial support programs to understand when and how entrepreneurial competencies and passions develop and interact between a NVT's members to impact team-level behaviors and outcomes.

### **Boundary conditions and limitations**

This research was based on two in-depth longitudinal case studies of newly formed NVTs in the food service and fintech industries. While an abductive case study approach (Eisenhardt and Graebner 2007; Bell et al. 2018) is used in this study, the approach of theoretical sampling used limits the direct empirical generalizability of this work. This study is restricted to two cases of NVTs, each in a developing country context. While proving to be valuable cases for addressing observational gaps and bringing to light novel theoretical insights (Eisenhardt and Graebner 2007; Yin 1994; Eisenhardt et al. 2016), these two contexts nevertheless remain a boundary condition for this research. While these cases provided insight into the convergence of differing competencies, passions and construals throughout the entrepreneurial process, it is important to recognize the influential role that the incubator programs had on the NVTs. While incubators are particularly fruitful settings for investigating the development of entrepreneurial competencies and entrepreneurial passion, they also provide an environment which likely encourages the convergence of more concrete construals in a NVT (Theodorakopoulos et al. 2014).

### **Future research and the potential for empirical investigations**

The conceptual model discovered in this paper is ripe for empirical testing using quantitative designs. This future work has the potential to add validity to the framework and identify greater variability as well as theoretical moderators that will build complexity into the processes abducted in this paper. Measures for most of the constructs in this paper's framework are readily available. For example, there are measures available for testing psychological distance (Tumasjan et al. 2013), the abstractness of entrepreneurial behavior (Chen et al. 2018), TEC (Santos et al. 2019), shared cognition as well as cohesion (Chen et al. 2017), and team performance (Breugst and Shepherd 2017). Furthermore, future research should investigate the applicability of this study's theoretical framework to other NVT

contexts. Extending this work can have important implications for understanding how NVTs work together and deal with varying perceptions as they progress through the nascent stages of the entrepreneurial process.

Another avenue for future research could be to understand NVT dynamics of teams that have already passed the “entrepreneurial Rubicon” - a tipping point identified by Delanoë-Gueguen and Fayolle (2018) which indicates when nascent entrepreneurs have made the decision to actually commence start-up and have taken enough action to move past the motivational (i.e. goal intention) phase into the volitional phase. Importantly, this work suggests that individual entrepreneurial competencies (specifically self-efficacy) may differ in its effect on the abstractness of entrepreneurial behavior depending on what stage of the entrepreneurial process a person is in. While it is acknowledged that perceived self-efficacy is important to start-up (Khan et al. 2014), empirical studies could test whether low self-efficacy may actually instill more concrete behaviors for entrepreneurs once they have passed this Rubicon point as they focus more on what they can feasibly implement given their perceived limitations.

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