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Through the Founder's Lens:
Paths, Partners, and Ownership in Early Venture Formation

Doctoral Thesis

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To Andreas, Anja and Janina.

Contents

Chapter 1: General Introduction **1**
Early Venture Formation as a Founder-Shaped Process 2
The Founder's Lens: Dispositions and Role Identities 5
From Entrepreneurial Intention Formation to Ownership Architecture 7
Overall Approach of the Dissertation 10
References 14
Chapter 2: Dark Traits, Bright Ventures? Meta-Analytic Evidence on the Effects of the Dark Triad on (Social) Entrepreneurial Intentions **17**
Introduction 18
Theory and Hypotheses 21
Method 35
Analysis and Results 40
Discussion 47
Conclusion 55
References 56
Chapter 3: Co-Founder Selection from a Marriage Market Perspective: How the Dark Triad Shapes Judgments of Interpersonal Attraction, Resources, and Equity Demand **61**
Introduction 62
Theory and Hypotheses 65
Method 83
Analysis and Results 90
Discussion 98
Conclusion 105
References 106
Chapter 4: Through the Passionate Eye: How Entrepreneurial Passion Shapes Founders' Equity Offers to Prospective Co-Founders **113**
Introduction 114
Theory and Hypotheses 117
Method 129
Analysis and Results 135
Discussion 148
Conclusion 154
References 155
Chapter 5: General Discussion **161**
Summary of Findings 164
Theoretical Implications 165
Strengths, Limitations, and Future Research Directions 171
Practical Implications 174
Conclusion 176
References 178
Appendices **183**
Affidavit 216

List of Figures

Figure 1.1 *Conceptual Logic of the Dissertation* 10
Figure 1.2 *Structure of the Dissertation* 13
Figure 2.1 *Conceptual Model* 35
Figure 2.2 *Literature Search Process* 37
Figure 3.1 *Conceptual Model* 83
Figure 3.2 *Visualizations of Predicted Values and Corresponding AMEs* 95
Figure 4.1 *Conceptual Model* 129
Figure 4.2 *Visualizations of Predicted Values* 141
Figure 4.3 *Visualizations of Average Marginal Effects* 144
Figure 5.1 *Position of the Dissertation Within the Early Venture Formation Process* 163

List of Tables

Table 2.1 *Overall Meta-Analytic Relationships* 41
Table 2.2 *Moderation Analysis: Commercial Entrepreneurial Intention* 44
Table 2.3 *Moderation Analysis: Social Entrepreneurial Intention* 45
Table 3.1 *Conjoint Decision Task* 87
Table 3.2 *Descriptive Statistics, Bivariate Correlations, and Measures* 92
Table 3.3 *HLM Regression Results* 93
Table 4.1 *Conjoint Decision Task* 131
Table 4.2 *Descriptive Statistics, Bivariate Correlations, and Measures* 136
Table 4.3 *HLM Regression Results* 138
Table 4.4 *Robustness Tests* 147

List of Appendices

Appendix 2.A *Search Terms Used in Systematic Literature Search* 183
Appendix 2.B *Studies and Coding of Studies Included in the Meta-Analysis* 184
Appendix 2.C *Publication Bias and Robustness Tests* 186
Appendix 2.D *Robustness Test: Subsampling Analysis* 188
Appendix 3.A *Pre-Study (Prolific): Data Quality Procedures and Sample Evaluation* 189
Appendix 3.B *Pre-Study Results: Equity Demand Perception of Entrepreneurs* 191
Appendix 3.C *Main Study (Dynata): Data Quality Procedures and Sample Evaluation* 192
Appendix 3.D *Dark Triad Construct: Overview and Confirmatory Factor Analysis* 195
Appendix 3.E *Conjoint Workflow Analysis* 196
Appendix 3.F *Predicted Values* 198
Appendix 3.G *Average Marginal Effects of Cross-Level Interactions* 199
Appendix 3.H *Stepwise HLM Regression Results* 200
Appendix 3.I *Robustness Checks* 201
Appendix 3.J *Split by Dark Triad Subdimensions* 202
Appendix 4.A *Exemplary Co-Founder Attribute Insights from Face-Validity Interviews* 203
Appendix 4.B *Test-Retest Reliability Analysis for Each Conjoint Profile* 204
Appendix 4.C *Overview of Conjoint Workflow Results* 205
Appendix 4.D *Predicted Values* 206
Appendix 4.E *Average Marginal Effects of Cross-Level Interactions* 208

Chapter 1: General Introduction

Entrepreneurship is commonly understood as a process through which individuals discover, evaluate, and exploit opportunities to create new goods, services, organizations, or social value (Shane & Venkataraman, 2000). This opportunity-centered view has been foundational for the development of entrepreneurship as a scholarly field because it clarifies that entrepreneurship is not merely about small firms, self-employment, or firm ownership, but about the emergence and pursuit of opportunities under uncertainty. Yet opportunities do not evaluate themselves. They become entrepreneurial through individuals who interpret them as meaningful, desirable, feasible, and worth pursuing despite uncertainty (McMullen & Shepherd, 2006; Wood et al., 2014; Wood & Williams, 2014). Entrepreneurship therefore cannot be understood only by examining opportunities, markets, resources, or institutions. It also requires attention to the individuals through whom these elements are interpreted and enacted (Baron, 2007; Grégoire et al., 2011; Mitchell et al., 2007).

This individual-centered logic is already embedded in one of the field's most influential definitions. Shane and Venkataraman (2000, p. 218) define entrepreneurship as the study of "how, by whom, and with what effects opportunities to create future goods and services are discovered, evaluated, and exploited." The phrase "by whom" is central to this dissertation. It reminds us that entrepreneurship is not only an opportunity-driven process, but also a founder-shaped process. Similar entrepreneurial situations may be interpreted differently by different individuals, and these interpretations matter especially when ventures are still emerging and when future outcomes remain uncertain.

This dissertation examines this founder-shaped character of entrepreneurship in the context of early venture formation. Early venture formation is a particularly revealing context because many of the routines, roles, relationships, and ownership arrangements that later stabilize organizational life are still emerging (Gartner, 1985; Katz & Gartner, 1988; Shepherd

et al., 2021). Before a venture has established governance structures, stable team boundaries, or a settled ownership architecture, founders must make formative evaluations under limited information (Lazar et al., 2020; McMullen & Shepherd, 2006). These evaluations concern not only whether to pursue entrepreneurship, but also whom to involve in the venture and how claims to the venture should be distributed.

To explain these evaluations, this dissertation develops a founder's lens perspective on early venture formation. The central premise is that founder dispositions and role identities shape how individuals interpret formative venture-building situations. These characteristics do not merely influence whether individuals engage in entrepreneurship. They also shape how entrepreneurial paths, prospective partners, and ownership claims become meaningful. In this sense, early venture formation is not only a process of organizing opportunities, resources, and people. It is also a process through which founders' interpretations begin to shape the individual, social, and ownership foundations of new ventures.

Across three empirical studies, this dissertation examines the founder's lens in relation to three connected formation processes: entrepreneurial intention formation, co-founder selection, and equity allocation. These processes capture increasingly concrete moments in early venture formation: from an individual's orientation toward entrepreneurship, to the formation of the founding relationship, to the allocation of ownership within the emerging venture. By connecting these processes, the dissertation advances an individual perspective on early venture formation and shows how founder dispositions and role identities shape the earliest foundations on which new ventures are built.

Early Venture Formation as a Founder-Shaped Process

Early venture formation differs from later organizational development because many of the structures that shape organizational life are not yet stabilized. Established organizations are embedded in formal roles, routines, governance systems, organizational cultures, resource

flows, and stakeholder expectations (Feldman & Pentland, 2003; Nelson & Winter, 1982). Early ventures, by contrast, emerge under conditions in which opportunities are still ambiguous, resources are fragile, team boundaries are incomplete, and ownership arrangements remain unsettled (Gartner, 1985; Katz & Gartner, 1988; Klotz et al., 2014; Lazar et al., 2020; Shepherd et al., 2021). This makes early venture formation a particularly important setting for examining how the individual founder shapes the emergence of a new organization.

Foundational work in entrepreneurship has long emphasized this organizing process. Gartner (1985) conceptualized new venture creation not as the expression of a fixed entrepreneurial type, but as the process through which new organizations come into being. Katz and Gartner (1988) further described emerging organizations through properties such as intentionality, resources, boundaries, and exchange. These perspectives are important because they shift attention from entrepreneurs or firms as static objects toward the formation processes through which organizations emerge. Yet they also imply that early venture formation depends on individuals who imagine possible futures, evaluate uncertain conditions, mobilize resources, establish boundaries, and initiate exchange relationships.

Bird's (1988) work on entrepreneurial intentions captures this point especially clearly. She defined entrepreneurial intentions as "entrepreneurs' states of mind that direct attention, experience, and action toward a business concept" and argued that such intentions "set the form and direction of organizations at their inception" (p. 442). This insight is central to this dissertation because it suggests that venture formation begins before stable organizational structures are visible. Early interpretations guide what founders notice, what they pursue, whom they involve, and how they begin to organize the venture. Founder interpretations are therefore especially consequential at the birth of an organization, when roles, routines, relationships, and ownership structures have not yet stabilized.

The importance of founder interpretation is also evident in research on entrepreneurial action under uncertainty. McMullen and Shepherd (2006) distinguish between third-person opportunities and first-person opportunities. A third-person opportunity may exist as a potential opportunity for someone, but it becomes a first-person opportunity only when the individual evaluates it as personally desirable and feasible. Opportunity evaluation research similarly emphasizes that individuals assess opportunities in relation to their own knowledge, goals, preferences, and perceived ability to act (Haynie et al., 2009; Wood & Williams, 2014). These perspectives show that entrepreneurial action depends not only on whether opportunities exist, but also on whether individuals interpret them as desirable for themselves.

This dissertation extends this founder-shaped logic from opportunity evaluation to early venture formation more broadly. In the earliest stages of organizing, individuals do not only evaluate opportunities, but also form intentions toward different entrepreneurial paths, assess prospective collaborators, and make ownership-related decisions before the consequences of these choices can be fully known. This does not imply that founders act unconstrained. Markets, institutions, technologies, capital providers, and social networks structure what founders can do. Their influence is realized through founders' interpretations, prioritizations, and translation of these conditions into formative choices.

Accordingly, this dissertation conceptualizes early venture formation as a founder-shaped process. Founder-shaped does not mean that venture formation is purely subjective or unconstrained. It means that, when organizational structures are still emerging, founder interpretations play a central role in turning uncertain conditions into concrete formation choices. Through these interpretations, entrepreneurial paths become intentional, potential collaborators become prospective co-founders, and emerging ventures begin to acquire social and ownership foundations.

The Founder's Lens: Dispositions and Role Identities

To explain how early venture formation becomes founder-shaped, this dissertation develops the idea of the founder's lens. The founder's lens refers to the individual-level filter through which founders interpret formative venture-building situations. The metaphor of a lens is useful because it captures interpretation without implying that founders freely construct reality. Entrepreneurial situations involve real opportunities, constraints, resource needs, relational demands, and ownership tradeoffs. Yet these elements do not carry identical meaning for all founders. They are perceived, weighted, and translated into action through the individual characteristics of the person guiding the venture formation process.

This perspective builds on research showing that entrepreneurship is deeply shaped by how individuals interpret uncertain situations. Entrepreneurial cognition research has shown that entrepreneurs differ in how they recognize, evaluate, and act on opportunities (Baron, 2007; Grégoire et al., 2011; Mitchell et al., 2007). Opportunity evaluation research further emphasizes that individuals assess opportunities not only in terms of objective attractiveness, but also in relation to their own goals, preferences, knowledge, and perceived ability to act (Haynie et al., 2009; McMullen & Shepherd, 2006; Wood & Williams, 2014). Founder identity research similarly shows that entrepreneurs' self-understandings shape how they define opportunities, stakeholders, and venture-building choices (Fauchart & Gruber, 2011; Hoang & Gimeno, 2010; Powell & Baker, 2017; Radu-Lefebvre et al., 2021). Finally, research on entrepreneurial personality indicates that relatively stable individual differences influence entrepreneurial intentions, decisions, and outcomes, while also suggesting that such effects depend on the specific entrepreneurial situations in which they unfold (Brandstätter, 2011; Rauch & Frese, 2007; Zhao et al., 2010). Taken together, these streams suggest that founder characteristics matter not only because they predict entrepreneurial action, but because they shape how entrepreneurial situations are interpreted.

This dissertation focuses on two components of the founder's lens: dispositions and role identities. Dispositions refer to relatively stable tendencies that shape how individuals perceive, evaluate, and respond to social situations. Chapters 2 and 3 examine such dispositions through the dark triad traits: Machiavellianism, narcissism, and psychopathy. These traits share a socially aversive core involving self-interest, low concern for others, and a willingness to use others instrumentally, while differing in their specific motivational and behavioral profiles (Jonason & Webster, 2010; Jones & Paulhus, 2014; Paulhus & Williams, 2002). Machiavellianism is commonly associated with strategic manipulation and instrumental control, psychopathy with impulsivity and low empathy, and narcissism with grandiosity, admiration seeking, and status striving (Jonason & Webster, 2010; Jones & Paulhus, 2014; O'Boyle et al., 2012). These traits are particularly relevant for entrepreneurship because entrepreneurial contexts can offer autonomy, status, influence, and opportunities for value appropriation, while also requiring social exchange, collaboration, and resource dependence (Brownell et al., 2021; Hmieleski & Lerner, 2016; McLarty et al., 2023; Wu et al., 2019). In this dissertation, the dark triad therefore serves as a dispositional lens through which individuals interpret entrepreneurial domains and prospective co-founder relationships.

Role identities represent the second component of the founder's lens. Whereas dispositions capture relatively stable tendencies in how individuals approach social situations, role identities capture how individuals understand themselves in relation to particular entrepreneurial roles. Role identities influence what founders experience as meaningful, self-defining, and worth protecting (Hoang & Gimeno, 2010; Stryker & Burke, 2000). They shape not only what founders do, but also how founders interpret situations that bear on the roles they seek to enact (Fauchart & Gruber, 2011; Powell & Baker, 2017; Radu-Lefebvre et al., 2021). Chapter 4 examines this logic through entrepreneurial passion. Entrepreneurial passion refers to intense positive feelings for entrepreneurial activities that are central to the entrepreneur's

self-identity (Cardon et al., 2009, 2013). Passion for inventing and passion for founding therefore reflect different role-identity attachments through which founders experience entrepreneurship as meaningful. This makes entrepreneurial passion especially relevant for equity allocation, because granting equity to a prospective co-founder involves not only valuing the candidate's expected contribution, but also assigning standing, influence, and ownership in the venture's emerging core.

Together, dispositions and role identities provide a richer account of the founder's lens than either component would provide alone. Dispositions help explain what individuals are drawn to, what they avoid, and how they evaluate social exchange and relational interdependence. Role identities help explain what founders experience as self-defining, what they seek to enact, and what they may protect when sharing ownership with others. This distinction allows the dissertation to connect the three empirical chapters without reducing them to a single mechanism. Across different formation processes, the common theoretical claim is that founder characteristics shape how early venture formation is interpreted.

From Entrepreneurial Intention Formation to Ownership Architecture

This dissertation organizes early venture formation around three formative processes: entrepreneurial intention formation, co-founder selection, and equity allocation. These processes capture a movement from relatively abstract entrepreneurial orientations to increasingly concrete partner and ownership decisions. Entrepreneurial intention formation concerns how individuals orient themselves toward possible entrepreneurial futures. Co-founder selection concerns how founders evaluate others as potential partners in the founding core. Equity allocation concerns how founders translate such evaluations into ownership claims. Together, these processes trace how early venture formation moves from an individual's intended entrepreneurial path, to the social composition of the founding team, to the ownership architecture of the emerging venture.

This sequence does not imply that venture formation is always linear. Founders may move back and forth between opportunity development, partner search, and resource acquisition, and founding teams may emerge through different pathways over time (Katz & Gartner, 1988; Klotz et al., 2014; Lazar et al., 2020; Shepherd et al., 2021). Nevertheless, the sequence provides a useful conceptual structure because it captures three increasingly concrete ways in which founders interpret formative venture-building situations. At each point, early venture formation requires evaluation before outcomes can be fully known. Individuals evaluate entrepreneurial paths before founding action occurs, founders evaluate prospective co-founders before collaboration unfolds, and ownership claims are allocated before the venture's future value and individual contributions can be fully observed.

The first process, entrepreneurial intention formation, captures the individual foundation of early venture formation. Entrepreneurial intentions capture an individual's conscious orientation toward entrepreneurial action and are among the most established predictors of entrepreneurial behavior (Ajzen, 1991; Bird, 1988; Krueger et al., 2000; Thompson, 2009). Yet intention formation should not be reduced to a generic intention to "become an entrepreneur." Entrepreneurial intentions can be directed toward different targets, contexts, and forms of entrepreneurship. Bird's later review emphasizes that intention focus matters and that entrepreneurship scholars should attend more carefully to what the intention is an intention toward (Bird, 2015). This is precisely the starting point of Chapter 2. The chapter distinguishes commercial and social entrepreneurial intentions and examines meta-analytically how founder dispositions shape intention formation across these distinct entrepreneurial domains.

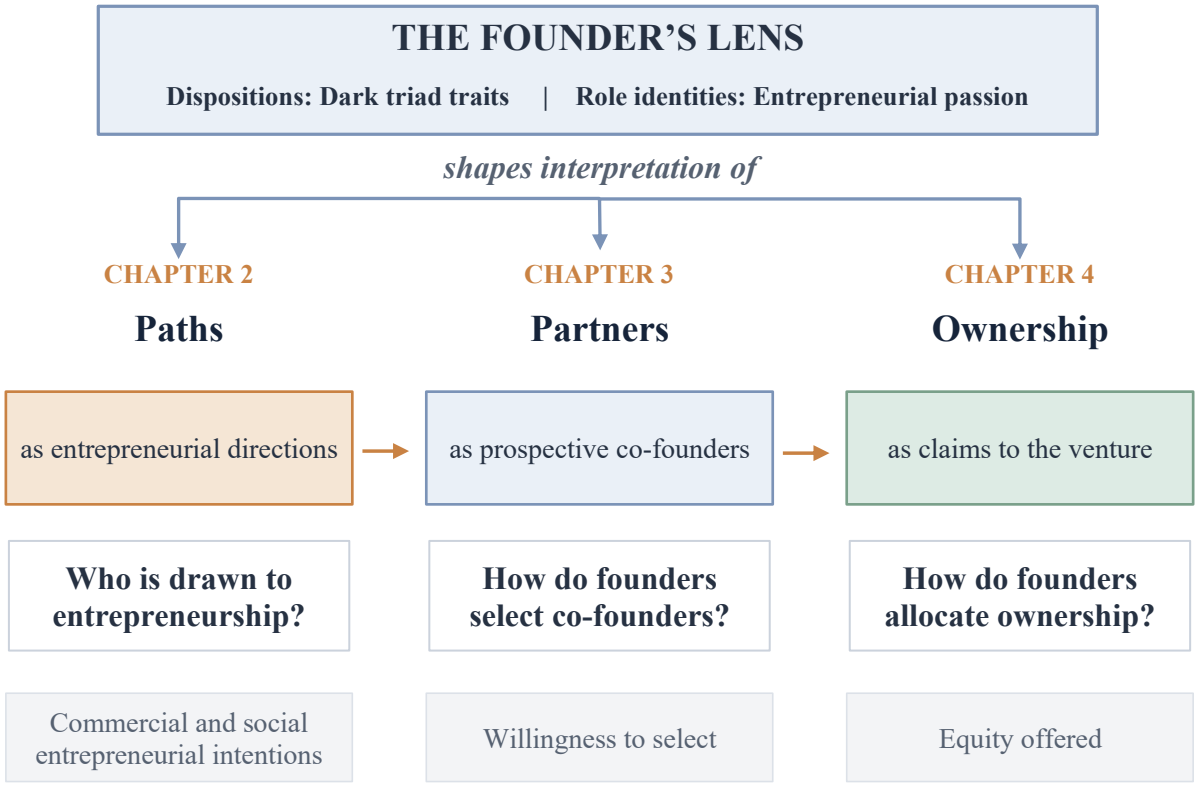
The second formative process, co-founder selection, captures the social foundation of early venture formation. Once individuals move toward venture creation, they often face the question of whom to build with. Co-founder selection is consequential because co-founders not

only contribute skills, resources, and networks, but also introduce interdependence, influence, and potential conflict (Forbes et al., 2006; Klotz et al., 2014; Lazar et al., 2020; Wasserman, 2012). Selecting a co-founder therefore means evaluating whether another person can become part of the venture's social core. Chapter 3 examines this process by studying how lead founders evaluate prospective co-founder candidates and how founder dispositions shape the weight assigned to interpersonal, instrumental, and distributive considerations.

The third formative process, equity allocation, captures the ownership foundation of early venture formation. Whereas co-founder selection concerns whether a candidate should join the founding team, equity allocation concerns how much of the venture that candidate should own. This distinction matters because equity grants claims to future value, control, influence, and recognition within the emerging venture (Hellmann & Wasserman, 2017; Wasserman, 2017; Weissenböck et al., 2024). Equity allocation is therefore not merely a technical division of shares, but a formative ownership decision through which founders define who receives standing in the venture's future. Chapter 4 examines this process by studying how founders translate prospective co-founder attributes into equity offers and how they are shaped by founder role identities.

Figure 1.1 summarizes the conceptual logic of the dissertation. It shows how the founder's lens, consisting of dispositions and role identities, shapes the interpretation of paths, partners, and ownership in early venture formation. The three empirical chapters examine these interpretations through entrepreneurial intention formation, co-founder selection, and equity allocation. The next section translates this conceptual logic into the overall empirical approach of the dissertation.

Figure 1.1 *Conceptual Logic of the Dissertation*



Together, these chapters explain how the founder's lens shapes the path, partner, and ownership foundations of early venture formation.

Overall Approach of the Dissertation

This dissertation advances an individual perspective on early venture formation by examining how founder dispositions and role identities shape entrepreneurial intention formation, co-founder selection, and equity allocation. The dissertation consists of three empirical studies, each addressing one guiding question:

Chapter 2: Who is drawn to entrepreneurship?

Chapter 3: How do founders select their co-founders?

Chapter 4: How do founders allocate ownership to co-founders?

Chapter 2, titled "Dark Traits, Bright Ventures? Meta-Analytical Evidence on the Effects of the Dark Triad on (Social) Entrepreneurial Intentions," examines entrepreneurial intention formation. Drawing on social exchange theory, the chapter distinguishes commercial

and social entrepreneurial intentions as two distinct entrepreneurial pathways with different anticipated exchange expectations. Using meta-analytic evidence from 48 individual samples and 24,607 participants, the chapter shows that Machiavellianism and psychopathy are positively associated with commercial entrepreneurial intentions and negatively associated with social entrepreneurial intentions, whereas narcissism is positively associated with both. These findings suggest that dark triad traits do not uniformly increase or suppress entrepreneurial intentions, but shape which entrepreneurial pathway appears attractive.

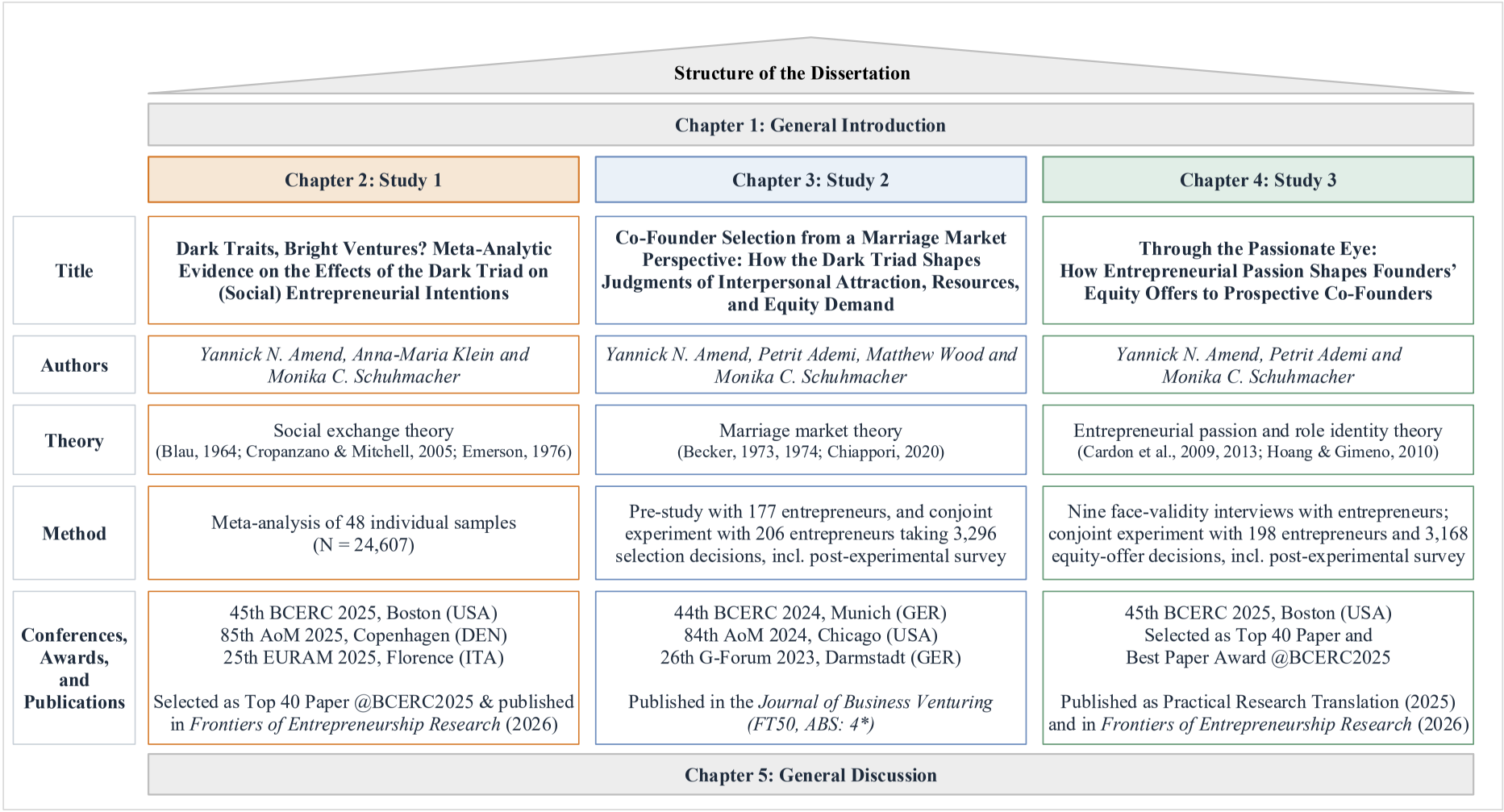
Chapter 3, titled "Co-Founder Selection from a Marriage Market Perspective: How the Dark Triad Shapes Judgments of Interpersonal Attraction, Resources, and Equity Demand," examines co-founder selection. Drawing on marriage market theory, the chapter conceptualizes co-founder selection as an individuated judgment process in which lead founders evaluate prospective co-founders based on affective, instrumental, and distributive considerations. Using a conjoint experiment with 206 entrepreneurs and 3,296 co-founder selection decisions, the chapter finds that interpersonal attraction and resource contribution increase willingness to select a candidate, whereas higher equity demand decreases it. The chapter further shows that founders higher in dark triad traits discount interpersonal attraction and display stronger aversion to equity dilution, suggesting that founder dispositions shape the cooperative logic of co-founder selection.

Chapter 4, titled "Through the Passionate Eye: How Entrepreneurial Passion Shapes Founders' Equity Offers to Prospective Co-Founders," examines equity allocation. Drawing on entrepreneurial passion and role identity theory, the chapter conceptualizes equity allocation as a role-identity-contingent ownership decision. Using a metric conjoint experiment with 198 U.S. entrepreneurs and 3,168 equity-offer decisions, the chapter finds that founders offer more equity to candidates who share their venture vision and personal values and to candidates with stronger domain expertise and larger networks. These effects depend on the founder's passion

domain: passion for inventing amplifies the equity value of interpersonal similarity and domain expertise, whereas passion for founding attenuates the equity value of interpersonal similarity. These findings show that ownership allocation depends not only on candidate attributes, but also on the founder role identities through which those attributes are interpreted.

Figure 1.2 summarizes the overall structure and provides an overview of the three empirical studies, including their titles, authors, theoretical foundations, methodological approaches, conferences, publications, awards, and publication status. The following chapters present the three empirical studies in detail.

Figure 1.2 *Structure of the Dissertation*



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Chapter 2: Dark Traits, Bright Ventures? Meta-Analytic Evidence on the Effects of the Dark Triad on (Social) Entrepreneurial Intentions

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Abstract:
This study explores how and why dark triad traits, namely Machiavellianism, narcissism, and psychopathy shape divergent entrepreneurial intentions in commercial and social domains. Grounded in social exchange theory, we argue that individuals with dark triad traits prefer self-serving, unilateral environments typical of commercial entrepreneurship, while clashing with the prosocial and reciprocal expectations that define social entrepreneurship. A meta-analysis of 48 individual samples (N = 24,607) reveals that Machiavellianism and psychopathy are positively associated with commercial and negatively with social entrepreneurial intentions. Notably, Narcissism is positively related to both domains. Moderator analyses reveal variation by gender composition, cultural context, and measurement instrument, further refining our understanding of trait–context contingencies. We contribute to social exchange theory by highlighting how anticipatory assessments of social environments shape entrepreneurial intentions to enter them. Our findings offer critical insights for guiding ethically aware and socially responsible entrepreneurial development among individuals with dark triad traits.

Keywords: Dark Triad, Machiavellianism, Narcissism, Psychopathy, Social Entrepreneurial Intention, Commercial Entrepreneurial Intention, Social Exchange Theory, Meta-Analysis.

Introduction

Entrepreneurship contributes to economic growth and social development by driving innovation, creating jobs, and addressing social challenges through the creation of value (Montiel & Clark, 2018; van Praag & Versloot, 2007). A central concern of entrepreneurship research has accordingly been to understand the factors that shape entrepreneurial intention, an individual's intent to start a venture, which captures the motivational factors underlying behavior and reflects how much effort individuals are willing to invest in performing it (Ajzen, 1991; Bird, 1988). Yet entrepreneurial intention is not directed toward a single entrepreneurial domain. Commercial and social entrepreneurship differ not only in their goals and value-creation orientation (Hockerts, 2017; Mair & Martí, 2006) but, more consequentially, in the social exchanges they require of their participants. Commercial entrepreneurial intention (CEI) is oriented toward self-interested value capture (Brownell et al., 2021; McLarty et al., 2023), whereas social entrepreneurial intention (SEI) concerns founding a venture with a social mission and is rooted in prosocial rather than in proself motivation, resulting in a strong expectation of reciprocal social exchange (Bacq & Alt, 2018; Hockerts, 2017; Mair & Noboa, 2006; Tan et al., 2020). This does not imply that social ventures forgo profit (Mair & Martí, 2006). While the literature mostly refers to CEI as "entrepreneurial intention" (Brownell et al., 2021; Hmieleski & Lerner, 2016; Kramer et al., 2011), we treat CEI and SEI throughout as two distinct constructs of entrepreneurial intentions.

This distinction matters most when the question turns to who is drawn to each entrepreneurial domain. Research has increasingly looked beyond the traditional "good entrepreneur" (Ahmed et al., 2022; Yusof et al., 2024) and the prosocially-motivated entrepreneur (Bacq & Alt, 2018; Hockerts, 2017; Mair & Noboa, 2006) to darker, self-centered dispositions, particularly the dark triad (DT) comprising Machiavellianism, narcissism, and psychopathy (Brownell et al., 2021; Liu et al., 2021; McLarty et al., 2023; Paulhus & Williams, 2002; Wu et al., 2020). A growing body of work establishes that these dark triad traits,

characterized by manipulation and the pursuit of power and prestige at others' expense (Jonason & Webster, 2010; Paulhus & Williams, 2002), are drawn to entrepreneurship as an admirable, autonomous, and status-conferring career (Brownell et al., 2021, 2024; Wu et al., 2019). What this general attraction does not explain, however, is which form of entrepreneurship each trait is attracted to. Treating commercial and social entrepreneurship as a monolithic construct obscures the possibility that the same trait sorts differently across the two domains that impose systematically different interpersonal and relational demands.

We address this issue by theorizing entrepreneurial intentions as anticipatory projections. Entrepreneurial intentions are forward-looking evaluations of whether a future entrepreneurial role aligns with an individual's motives, preferences, and perceived fit (Ajzen, 1991; Bird, 1988; Van Gelderen et al., 2015). Drawing on social exchange theory (SET; Blau, 1964; Emer-son, 1976), we argue that what prospective entrepreneurs anticipate and evaluate is the social exchange environment of each entrepreneurial domain. SET holds that actors select themselves into relational settings whose exchange logics align with what they value (Cropanzano & Mitchell, 2005; Meeker, 1971). Building on this self-selection process, we contend that commercial entrepreneurship (CE) and social entrepreneurship (SE) differ sharply in their social exchange logics. CE tolerates transactional, one-sided exchange that allows self-serving behavior to coexist with viable participation, whereas SE makes reciprocal, trust-laden exchange a participation expectation of the role (Bacq & Alt, 2018; Brownell et al., 2021; Mair & Martí, 2006). Because the three DT traits share an appropriative taking without giving core (O'Boyle et al., 2012) but diverge in how they navigate reciprocal exchange (Brownell et al., 2021; Jones & Paulhus, 2014), they should anticipate these two environments differently, and therefore sort into CEI and SEI in trait-specific ways. This anticipatory mechanism is the conceptual bridge our study supplies: it aims to explain not merely that DT traits are attracted to entrepreneurship, but why their intentions could diverge across its domains.

The need for such a mechanism is underscored by the inconsistency of existing findings. For example, regarding CEI, studies report both positive (Do & Dadvari, 2017; McLarty et al., 2023) and negative (Laouiti et al., 2025; Wu et al., 2020) correlations with psychopathy. Also, for Machiavellianism findings are inconsistent (cf. Cai et al., 2021; Hmieleski & Lerner, 2016; Wu et al., 2020). For SEI, the picture is similarly complex: Machiavellianism and psychopathy often correlate negatively, whereas narcissism tends to correlate positively (Wu et al., 2020, 2022), even though narcissism is negatively linked to social value creation (Lopez et al., 2023), which supports the negative correlation found by the largest SEI study in a non-WEIRD (Western, Educated, Industrialized, Rich, Democratic) context (Jahanshahi et al., 2025). Absent a theoretical explanation of how each DT trait evaluates each domain's exchange environment, these patterns appear contradictory rather than systematic.

We test this account meta-analytically across all six trait-by-domain relationships, namely Machiavellianism, narcissism, and psychopathy, each predicting CEI and SEI. Whereas Brownell et al. (2021) provided the first meta-analysis of DT-CEI relationships across 21 studies, their work did not consider SEI. By more than doubling the available evidence base, we reconcile previously inconsistent findings, provide the first meta-analytic comparison of DT traits across CEI and SEI, and examine moderators that prior work was unable to test. Specifically, we assess whether these relationships vary by age, gender, WEIRD versus non-WEIRD samples, and the DT measurement instrument used.

Our research offers three contributions to theory. First, we contribute to entrepreneurial intention research by showing that the relationship between DT traits and entrepreneurial intention depends fundamentally on the specific entrepreneurial domain. Prior work often treats entrepreneurial intention as a general construct (Bird, 1988; Krueger et al., 2000) and explains its emergence through the Theory of Planned Behavior (Ajzen, 1991) or the Entrepreneurial Event Model (Shapero & Sokol, 1982). We show that an individual's dark triad traits do not uniformly amplify or dampen their entrepreneurial intentions but are rather shaped by which

exchange environments the individual finds attractive to enter based on their trait tendencies, leading commercial and social entrepreneurship to generate systematically divergent intentions.

Second, we extend SET (Blau, 1964; Emerson, 1976) by relocating it from a theory of behavior within existing relationships to a theory of anticipatory evaluation of future roles. SET has traditionally been used to explain how individuals act inside relationships they already inhabit (Blau, 1964). Building on the premise that individuals self-select into exchange environments they value (Cropanzano & Mitchell, 2005; Meeker, 1971), we theorize that individuals also evaluate the social exchange conditions of roles they have not yet entered, and that entrepreneurial intentions are prospective judgments about the kinds of social exchanges a future entrepreneurial path will require.

Third, we contribute to the emerging literature on the darker side of social entrepreneurship (e.g., Bacq et al., 2026; Sabbatucci et al., 2026; Shepherd, 2019). Social entrepreneurship is typically framed around prosocial motivation, empathy, and compassion (Bacq & Alt, 2018; Hockerts, 2017; Miller et al., 2012). Our findings suggest that SEI can also arise from self-enhancing motives, particularly where the domain's reciprocal exchange logic happens to supply the admiration narcissistic individuals seek. This does not imply that narcissistic SEI necessarily produces harmful outcomes, but it does suggest that the motivational basis of SE is more heterogeneous than commonly assumed.

Theory and Hypotheses

Entrepreneurial intentions as anticipatory projections

Entrepreneurial intentions are prospective psychological projections that encode an individual's commitment to engaging in entrepreneurial activity at some indeterminate future point (Bird, 1988; Krueger et al., 2000; Thompson, 2009). As such, they are forward-looking and do not only reflect the individual's motivational orientation but also their anticipation of what the entrepreneurial role will involve, how well their personal characteristics will fit it, and how the social interactions of that role will unfold (Ajzen, 1991; Van Gelderen et al., 2015; Virick et

al., 2015). Because intentions concern future goals and actions, they do not translate immediately into subsequent behavior. Individuals may deliberately postpone action, encounter new constraints, or update preferences without that representing a failure of intention (Van Gelderen et al., 2015). What intentions do reliably capture, however, is the individual's prospective evaluation of whether a particular environment's expected demands fit their motivations and preferences. Where the entrepreneurial role is internally heterogeneous, comprising distinct domains that differ in their relational and social exchange demands, this prospective evaluation should produce systematic differences in intention formation across those domains.

Commercial and social entrepreneurship represent exactly such distinct domains. Both involve venture creation under uncertainty (McMullen & Shepherd, 2006), but they differ not only in goals and value-creation orientation (Hockerts, 2017; Mair & Martí, 2006) but, more consequentially for our theorizing, in the social exchanges they require of their participants. To unpack what distinguishes these anticipated environments, we draw on SET.

Social exchange theory and the entrepreneurial domains

SET (Blau, 1964; Emerson, 1976; Homans, 1958) holds that social behavior is structured by the rewards and costs of social interactions, and that relationships form and persist when participants find the exchange worthwhile (Cropanzano & Mitchell, 2005; O'Boyle et al., 2012; Settoon et al., 1996; Thibaut & Kelley, 1959). Three features of SET are central to our theorizing.

First, SET distinguishes between economic and social transactions. Blau (1964) argued that "the basic and most crucial distinction is that social exchange entails unspecified obligations" (p. 93). Economic transactions involve clearly specified obligations (e.g., payment for goods, contractual exchange) that settle in the moment and require no ongoing trust between parties (Blau, 1964; Cropanzano & Mitchell, 2005). Social transactions, by contrast, "involve favors that create diffuse future obligations […] and the nature of the return cannot be

bargained," and "only social exchange tends to engender feelings of personal obligations, gratitude, and trust" (Blau, 1964, pp. 93–94). Commercial and social entrepreneurship rely on these two logics in different proportions. Commercial entrepreneurship is anchored in economic transactions and is widely associated with higher profit orientation than its social counterpart. Social entrepreneurship is not necessarily profit-free (Mair & Martí, 2006), but engages in market transactions of its own, depending on and rooted in social transactions (e.g., goodwill) of beneficiaries, partners, or communities whose contributions cannot be priced or contracted (Bacq & Alt, 2018; Mair & Martí, 2006; Sabbatucci et al., 2026).

Second, sustaining a social exchange relationship does not require that exchanges be in-kind, only that both parties value them reciprocally (Blau, 1964; Cropanzano & Mitchell, 2005; Emerson, 1976). One party may contribute tangible resources while the other reciprocates with status, recognition, or social validation, and the relationship is sustained so long as each party experiences the exchange as worthwhile. What counts as a worthwhile exchange varies systematically across individuals (Cropanzano & Mitchell, 2005; Meeker, 1971). Participants enter relationships with anticipations of what they will give and what they will receive and select into relational settings whose exchange logics align with what they value.

Third, the maturation of social transactions into trusting, long-term relationships is governed by rules and norms of exchange, most prominently the norm of reciprocity (Cropanzano & Mitchell, 2005; Emerson, 1976; Gouldner, 1960). Relationships deepen when parties consistently meet their reciprocity obligations and deteriorate when they do not. This rule-governed dynamic means that participants in social exchange environments are continually evaluated by their counterparts on the reciprocity they extend, and that actors who consistently take without giving experience relational degradation over time.

Consequently, these three central tenets of SET specify a meaningful difference in the social exchange environments of commercial and social entrepreneurship. Commercial entrepreneurship tolerates a wider mix of exchange logics, including transactional and

unilateral exchanges that allow self-serving behavior to coexist with viable participation (Bacq & Alt, 2018; Brownell et al., 2021). Social entrepreneurship, by contrast, places the maintenance of reciprocal, trust-laden social exchanges at the core of the enterprise itself (Bacq & Alt, 2018; Mair & Martí, 2006). The prosocial orientation of social entrepreneurship is not merely an outcome goal but rather a participation requirement. Actors who cannot or will not sustain reciprocal social exchange encounter difficulties in meeting the most basic demands of the role. Because entrepreneurial intentions are anticipatory projections, the difference in social exchange environments should produce systematic differences in who is drawn to each domain, and it is on this point where the dark triad traits and their preferences become theoretically consequential.

The dark triad and divergent entrepreneurial intentions

The dark triad comprises three socially aversive personality traits, namely Machiavellianism, narcissism, and psychopathy, each characterized by manipulativeness, callousness, and self-promotion (Paulhus & Williams, 2002). Although the three traits share an antisocial core lacking altruistic or prosocial ideals (Hmieleski & Lerner, 2016), each is associated with a distinct profile of social exchange behavior (Jones & Paulhus, 2014; O'Boyle et al., 2012; Paulhus & Williams, 2002). A common thread among these traits is a strategy of taking without giving (O'Boyle et al., 2012), in which social exchanges are shifted to maximize personal returns regardless of the costs imposed on counterparts. To pursue admiration, power, status, and material gain (Boddy, 2006; Jones & Paulhus, 2009, 2014; Voegel, 2017), individuals high in the DT tend to develop superficial, short-term relationships and move on once their needs are met (Hmieleski & Lerner, 2016).

In recent years, entrepreneurship research has been particularly active, because its cultural framing as an admirable and individualistic career (Wu et al., 2019), associated with power, prestige, and leadership (Brunell et al., 2008; Kramer et al., 2011; Terek-Stojanović et al., 2023), makes it a natural attractor for these individuals, as a growing body of research

affirms (e.g., Brownell et al., 2021, 2024; Gubik & Vörös, 2023; Schmidt et al., 2025). Entrepreneurs engage in social exchanges with investors, banks, employees, partners, and customers (Al-Ghazali & Afsar, 2021; Dutta & Khurana, 2024), providing varied opportunities for self-promoting and exploitative behavior.

What this general attraction to entrepreneurship does not specify, however, is *which* form of entrepreneurship DT personalities are drawn to. Because the three DT traits diverge in how they navigate reciprocal social exchange, and because commercial and social entrepreneurship impose systematically different reciprocity demands, we expect them to relate differently to commercial and social entrepreneurial intentions. The mechanism we propose is anticipatory in the sense that prospective entrepreneurs evaluate the social exchanges they expect to encounter in each context, and DT personalities form intentions toward contexts whose anticipated exchange logics fit the strategies they typically employ. Because the three traits employ different social exchange strategies (Brownell et al., 2021), their intentions should diverge in trait-specific ways. We elaborate this anticipatory account for each DT trait in the hypotheses that follow.

Machiavellianism and entrepreneurial intentions

Machiavellianism is characterized by manipulative and controlling behavior in the service of personal goals (Dahling et al., 2009; Hanson et al., 2024; Jonason & Webster, 2010), particularly the acquisition of instrumental returns such as image, status, power, and wealth (Boddy, 2006; Jones & Paulhus, 2009, 2014; Voegel, 2017). Viewed through the lens of SET, the Machiavellian exchange strategy is defined by an orientation toward economic, bounded transactions and away from the open-ended social exchanges that generate diffuse future obligations. Specifically, individuals higher in Machiavellianism distrust others (Dahling et al., 2009) and therefore do not assume reciprocal relationships (Gunnthorsdottir et al., 2002). Consequently, they prefer exchanges in which obligations are specified, settle in the moment, and do not bind them to future, unpriced returns (cf. Blau, 1964). They possess a strong

adaptability which allows them to conceal their true interpersonal intentions (Wu et al., 2019), meaning that they can effectively exploit social interactions for their own purposes (Cai et al., 2021; Do & Dadvari, 2017; Hanson et al., 2024; Hoang et al., 2022; McLarty et al., 2023; Wu et al., 2019). In SET terms, they enter exchanges with the asymmetric anticipation that they expect to appropriate value rather than create it for others (Hmieleski & Lerner, 2016), and they expect counterparts to act with the same self-interest (Taboroši et al., 2023).

This exchange profile fits the anticipated environment of commercial entrepreneurship. As previously outlined, the competitive environment of commercial entrepreneurship (Laouiti et al., 2025; Lien et al., 2022; Wu et al., 2019) tolerates and may even reward their manipulative, self-interested behavior, offering them the opportunity to exploit social interactions for personal advantage, without the constraint of mutual benefit (Bacq & Alt, 2018; Brownell et al., 2021). A setting where specified, transactional exchanges predominate, where leadership and control over employees are legitimate prizes of participation (Feng et al., 2023; Hmieleski & Lerner, 2016; Terek-Stojanović et al., 2023; Wu et al., 2019), and where manipulative tactics deployed in service of personal gain are buffered, rather than penalized, contributes to the tolerance of one-sided exchanges (Bacq & Alt, 2018; Brownell et al., 2021; Do & Dadvari, 2017; Hanson et al., 2024). In this environment, the Machiavellian individual is set to exploit exchanges to gain advantages, such as leadership roles followed by satisfying their need of dominance through controlling employees and putting their own interests above those of others (Hmieleski & Lerner, 2016; Terek-Stojanović et al., 2023; Wu et al., 2019). Indeed, research has shown that people with higher scores in Machiavellianism tend to not only occupy leadership roles more often but also are more willing to use abusive supervision to achieve their goals (Feng et al., 2023). Complementarily, commercial entrepreneurship offers them the opportunity to utilize manipulative approaches for self-interested purposes (Brownell et al., 2021; Do & Dadvari, 2017; Hanson et al., 2024), tolerating one-sided social exchanges (Bacq & Alt, 2018). Hence, we hypothesize:

> ***Hypothesis 1a****: Higher levels of Machiavellianism are associated with increased commercial entrepreneurial intention.*

Social entrepreneurship presents a fundamentally different exchange environment which places the maintenance of reciprocal, trust-laden social exchanges at the core of the venture itself (Bacq & Alt, 2018; Mair & Martí, 2006). Many of its key relationships, namely with beneficiaries, partners, communities, and supporters, rest on contributions that cannot be priced or contracted and that generate diffuse, ongoing obligations whose returns may take the form of trust, legitimacy, or social validation rather than tangible payoff (Blau, 1964; Cropanzano & Mitchell, 2005). Reciprocity here is not an optional norm governing isolated transactions but a participation requirement of the role, and actors who consistently take without giving experience the relational degradation that SET predicts of reciprocity violators (Gouldner, 1960). In organizational terms, Grant (2013) characterizes such actors as takers, whose extractive orientation undermines trust and cooperation over time.

For individuals higher in Machiavellianism, this environment poses a dual misfit. First, their social exchange profile composed of resistance to diffuse obligations, distrust of reciprocity, and preference for appropriation over value creation, runs counter to the very logic on which social entrepreneurship operates (Bacq & Alt, 2018; Hanson et al., 2024; Hmieleski & Lerner, 2016; Lien et al., 2022; Sabbatucci et al., 2026). Individuals higher in Machiavellianism generally lack prosocial motivation and concern for others' welfare (Hanson et al., 2024; Lien et al., 2022), yet are willing to do almost everything to achieve their own goals (Taboroši et al., 2023) even if this involves the use of unscrupulous methods or the breaking of social norms (Khawar et al., 2022; McLarty et al., 2023). Second, because reciprocity in social entrepreneurship is rule-governed and continually evaluated by counterparts (Cropanzano & Mitchell, 2005; Emerson, 1976), the strategies Machiavellians typically deploy in social interactions, namely concealment of intentions, instrumental network-building, and norm-bending in service of self-interest (Khawar et al., 2022; McLarty et al., 2023; Taboroši et al.,

2023; Wu et al., 2019), are precisely the strategies most likely to invite relational sanction in this domain over time. A counter-argument exists: Voegel (2017) suggests that social entrepreneurship may attract individuals higher in Machiavellianism as a vehicle for reputational gain, because presenting oneself as socially oriented can yield power, status, and access to influential networks (Boddy, 2006; Dufays & Huybrechts, 2014; Jones & Paulhus, 2009; Kim et al., 2023), and because selfish motivations are not, in themselves, an obstacle to forming SEI (Bacq & Alt, 2018; Jonason & Webster, 2010; Mair & Martí, 2006). The anticipatory account specified above, however, predicts that this exchange benefit is unlikely to dominate the projection. The reputational benefit Machiavellians seek is precisely the kind of diffuse, trust-mediated reward that requires sustained reciprocal contribution to materialize. A Machiavellian individual who anticipates withholding reciprocity should also anticipate that the image benefit will not be conferred. The costs of simulating long-term prosocial commitment in an environment that continually tests reciprocity therefore outweigh, in prospective evaluation, the personal returns Machiavellians most value (Lien et al., 2022). On balance, individuals higher in Machiavellianism should project social entrepreneurship as a poor environment for their exchange strategy and form weaker intentions toward it. Hence, we propose:

> ***Hypothesis 1b****: Higher levels of Machiavellianism are associated with decreased social entrepreneurial intention.*

Narcissism and entrepreneurial intentions

Narcissism is associated with a sense of entitlement and a belief in one's superiority over others (Paulhus & Williams, 2002; Wu et al., 2019), an attraction to power, admiration, and status (Jonason & Webster, 2010), and a dominant, self-confident disposition that approaches pressure, risk, and uncertainty as manageable (Al-Ghazali & Afsar, 2021; Paulhus & Williams, 2002). Narcissists will make a valuable contribution when admiration must be earned, but where their sense of superiority entitles them to it, they readily disregard mutual exchange

conventions and pursue admiration through dominance and control instead (Jones & Paulhus, 2014; O'Boyle et al., 2012). Their charisma and dominant disposition equip them to steer social interactions, such as employer-employee relationships, to their own advantage (Al-Ghazali & Afsar, 2021).

This exchange profile fits the anticipated environment of commercial entrepreneurship including the unilateral, self-serving exchanges that allow narcissistic behavior to coexist with viable participation (Bacq & Alt, 2018; Brownell et al., 2021; O'Boyle et al., 2012). The founder role confers status and authority directly, without the reciprocal obligations or the corporate ladder that would otherwise gate them (Hmieleski & Lerner, 2016), and it grants the freedom and self-determination narcissists value (Al-Ghazali & Afsar, 2021). It also affords the control over social interactions that narcissists can leverage for personal advantage (Al-Ghazali & Afsar, 2021), while additionally, its cultural framing as an admirable, individualistic career (Wu et al., 2019) feeds their need for esteem.

Consequently, we propose that individuals higher in narcissism project commercial entrepreneurship as an environment that delivers reward, admiration and status, through a route that fits their preference for control and domination, while their self-confidence and sense of superiority render the attendant risks and uncertainties less of a deterrent (Al-Ghazali & Afsar, 2021; Jonason & Webster, 2010). Consistent with this, research has largely confirmed a positive narcissism-CEI relationship (Cesinger & Kramer, 2011; Hanson et al., 2024; Hmieleski & Lerner, 2016). Hence, we reason:

> ***Hypothesis 2a****: Higher levels of narcissism are associated with increased commercial entrepreneurial intention.*

Interestingly, the relationship between narcissism and SEI appears more complex than that of Machiavellianism. Wu et al. (2020) hypothesized a negative relationship, reasoning from the self-serving nature of narcissistic individuals, yet obtained a positive correlation. Voegel (2017) instead proposed and confirmed a positive relationship, arguing that narcissistic individuals are

drawn to social entrepreneurship as a means of enhancing their social image and status, a finding also supported by Kim et al. (2023).

Viewed through the lens of SET, this tension resolves once the form of the narcissistic exchange strategy is distinguished from its motive. What separates narcissism is not a weaker self-interest but a different way of transacting it (Brownell et al., 2021). Whereas the Machiavellian strategy withholds reciprocity and thereby courts relational degradation, the narcissistic exchange strategy is defined by a willingness to extend a contribution that counterparts value if this ultimately advances their goals (Back et al., 2013; Brunell et al., 2008). Particularly, the manipulative nature of narcissism manifests in socially acceptable forms such as charisma and charm, with comparatively little destruction of interpersonal relationships, to the extent that those relationships are needed to secure admiration (Brownell et al., 2021; Jonason et al., 2012). To obtain social acceptance, narcissistic individuals temporarily refrain from manipulation and instead display adaptability, cooperation, and visible value creation for others (Hmieleski & Lerner, 2016; Terek-Stojanović et al., 2023), investing in relationship maintenance where it serves their need fulfillment (Brownell et al., 2021; Brunell et al., 2008; Hmieleski & Lerner, 2016; Terek-Stojanović et al., 2023). Accordingly, they endeavor not to be perceived as unscrupulous, even when prepared to act in their own interest behind closed doors (Hmieleski & Lerner, 2016).

A key aspect of SET is that an exchange relationship does not have to be based on in-kind contributions, since it endures as long as each party experiences what it receives as worthwhile (Blau, 1964; Cropanzano & Mitchell, 2005; Emerson, 1976). The currency narcissists are equipped to supply, namely charm, praise, recognition, and the visible presence of an admirable, helpful figurehead, is one that beneficiaries, partners, and communities readily value. In this regard, narcissism diverges from its DT counterparts. While all three traits share a self-serving core oriented toward instrumental gain (O'Boyle et al., 2012; Paulhus & Williams, 2002), admiration and validation of a grandiose self-image is a central motive that

drives narcissistic behavior (Back et al., 2013; Grapsas et al., 2020). Because admiration is a socially conferred reward, granted by others rather than seized from them, it can only materialize where counterparts experience the exchange as worthwhile, which is precisely the condition social entrepreneurship's reciprocal environment is structured to supply.

This convergence between the narcissistic reward currency and social entrepreneurship's exchange logic is reinforced by what is known to drive SEI. The primary goal of narcissistic individuals is admiration and ego enhancement (Paulhus & Williams, 2002), and entrepreneurship becomes especially appealing to them when they perceive their actions to be admired and valued by others (Voegel, 2017). Perceived social worth itself is a central driver of SEI because the more an individual feels valued by beneficiaries, the stronger their SEI (Bacq & Alt, 2018). Social entrepreneurship thus offers, as a structural feature of its exchange environment, precisely the diffuse, socially mediated return, namely esteem as an admirable and helpful role model, that narcissistic motivation is calibrated to pursue (Bacq & Alt, 2018; Kim et al., 2023).

Hence, we reason that individuals higher in narcissism project SE as an environment whose reciprocal exchanges supply their preferred reward in return for a contribution they are equipped to make. Since the environment ultimately serves their need for social admiration and status (Hmieleski & Lerner, 2016; Kim et al., 2023; Lien et al., 2022; Voegel, 2017; Wu et al., 2019), they accept the costs of its reciprocity-dense logic. Hence, we propose:

> ***Hypothesis 2b****: Higher levels of narcissism are associated with increased social entrepreneurial intention.*

Psychopathy and entrepreneurial intentions

Psychopathy is an antisocial trait characterized by manipulativeness, low empathy, impulsivity, and thrill-seeking (Decuyper et al., 2009; Jonason & Webster, 2010; Paulhus & Williams, 2002; Tucker, 2016), and is motivated by instrumental and material gain, dominance, and status (Jones & Paulhus, 2014; Lien et al., 2022). Viewed through the lens of SET, psychopathy shares

the appropriative orientation of the DT but transacts it differently from the other two traits. Where the Machiavellian withholds reciprocity strategically and the narcissist will extend a valued contribution to secure admiration, the psychopathic exchange strategy is defined by indifference to relational cost. Their impulsivity and thrill-seeking (Decuyper et al., 2009; Paulhus & Williams, 2002) work in contrast to the patient, calculated concealment on which Machiavellian exchange depends. Additionally, their callousness and lack of empathy (Paulhus & Williams, 2002) leave them unmoved by the relational degradation caused by persistent one-sidedness. They appropriate value from social exchanges without reciprocal value creation (Hmieleski & Lerner, 2016) and are largely indifferent to whether counterparts experience the exchange as worthwhile.

Their exchange profile aligns with the environment of commercial entrepreneurship, whose tolerance of one-sided, non-reciprocal exchange means that the indifference to relational cost that disadvantages psychopathic actors in more reciprocity-dependent contexts carries fewer immediate penalties here. Commercial entrepreneurship draws these individuals on two complementary grounds. The competitive and uncertain conditions of commercial entrepreneurship, which deter more risk-averse actors, instead attract individuals higher in psychopathy, whose disposition to risk and thrill-seeking render these conditions appealing rather than intimidating (Brownell et al., 2021; Decuyper et al., 2009; Jonason & Webster, 2010; Paulhus & Williams, 2002; Tucker, 2016). At the same time, commercial entrepreneurship supplies the instrumental and material rewards that motivate them (Brownell et al., 2021; Decuyper et al., 2009; Hmieleski & Lerner, 2016; Paulhus & Williams, 2002; Tucker, 2016) while simultaneously tolerating exploitative, appropriative behavior through which they seek those rewards (Hmieleski & Lerner, 2016).

Consequently, individuals higher in psychopathy anticipate commercial entrepreneurship as an environment whose tolerance of one-sided exchange, instrumental rewards, and high-risk conditions all fit their exchange strategy (Bacq & Alt, 2018; Brownell

et al., 2021). Consistent with this, most research supports a positive psychopathy-CEI link (Cesinger & Kramer, 2011; Kramer et al., 2011; McLarty et al., 2023). Hence, we propose:

> ***Hypothesis 3a****: Higher levels of psychopathy are associated with increased commercial entrepreneurial intention.*

As established, SE places reciprocal, trust-laden social exchange at the core of the venture and treats reciprocity not as an optional norm but as a participation requirement, such that actors who consistently take without giving experience relational degradation over time (Bacq & Alt, 2018; Gouldner, 1960; Mair & Martí, 2006). For individuals higher in psychopathy, this environment poses two substantial barriers to intention formation.

First, the psychopathic reward currency does not match what social entrepreneurship supplies. Unlike narcissism, whose striving for admiration is conferrable within social entrepreneurship's reciprocal logic, psychopathic motivation centers on instrumental and material gain, dominance, and self-expression (Jones & Paulhus, 2014; Lien et al., 2022), whereas the diffuse, socially mediated returns social entrepreneurship generates, such as trust, legitimacy, and social worth, hold little of the instrumental value these individuals seek.

Second, even where social entrepreneurship appears to offer instrumental opportunities, such as status or the capacity to dominate by deliberately creating dependency on one's help (Kim et al., 2023; Lien et al., 2022), realizing them would require sustaining a prosocial image within an environment that continually evaluates reciprocity (Cropanzano & Mitchell, 2005; Emerson, 1976). This is precisely what the psychopathic strategy is least equipped to do as their impulsivity, short-term focus, and disregard for negative consequences (Lien et al., 2022) undermine the patient simulation of prosocial commitment that social entrepreneurship demands.

A competing prediction warrants consideration. Voegel (2017) transferred the commercial entrepreneurship logic to social entrepreneurship and confirmed a positive relationship, reasoning that social entrepreneurship affords individuals higher in psychopathy

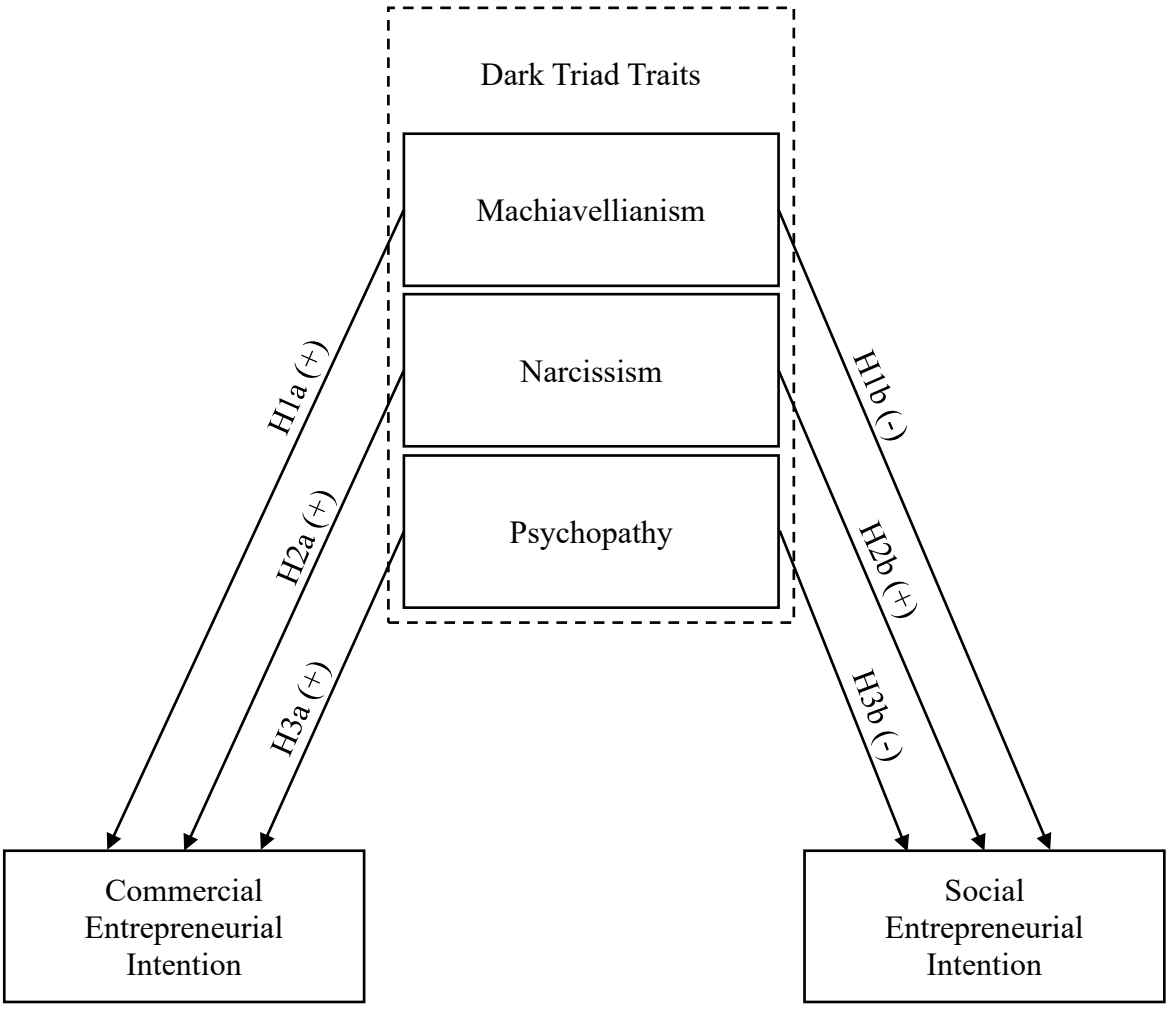
comparable opportunities to manipulate and dominate under the umbrella of a company that, when viewed from the outside, appears to be socially responsible, while not necessarily being non-profit (Mair & Martí, 2006). However, we argue that this opportunity is unlikely to dominate the intention formation projection, consistent with the negative relationship Wu et al. (2020) argued for and confirmed. From a SET perspective, the instrumental opportunities social entrepreneurship affords are gated behind exactly the sustained reciprocal, prosocial conduct whose prosocial ideals (Azizli et al., 2016; McLarty et al., 2023; Wu et al., 2020), emphatic traits (Akhtar et al., 2013; Sabbatucci et al., 2026; Wu et al., 2020), and long-term orientation (Lien et al., 2022) psychopathic actors are lacking to provide or even convincingly counterfeit.

In sum, individuals higher in psychopathy should anticipate social entrepreneurship as an environment whose reward currency does not match what they value and whose reciprocity demands they can neither meet nor simulate, such that the costs of attending to others' needs and maintaining a prosocial image outweigh the personal benefits on offer (Bacq & Alt, 2018; Hmieleski & Lerner, 2016; Wu et al., 2020). They should therefore project social entrepreneurship as an unattractive environment for their exchange strategy and form weaker intentions toward it. Hence, we hypothesize:

> ***Hypothesis 3b****: Higher levels of psychopathy are associated with decreased social entrepreneurial intention.*

An overview of all hypotheses is provided in Figure 2.1.

Figure 2.1 *Conceptual Model*



Method

Search strategy and inclusion criteria

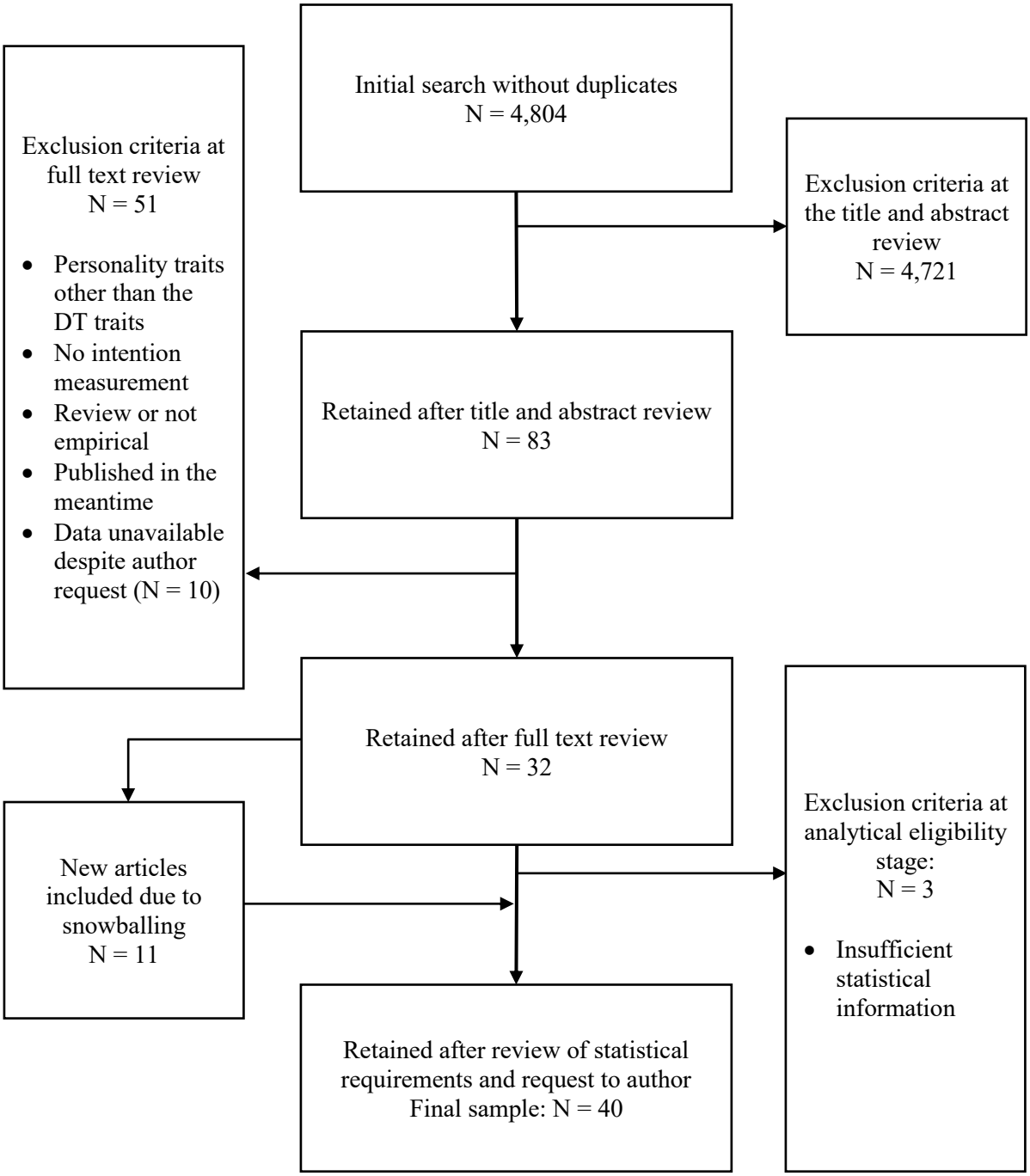
To investigate how the DT traits form CEI and SEI, we conducted a meta-analytic synthesis of the available empirical evidence. The meta-analytic approach allows us to integrate the statistical results of independent studies into overall effect estimates (Eisend, 2020), to adjudicate inconsistent primary findings, and, given the scale of the synthesized sample, to test theoretically motivated moderators that single primary studies cannot accommodate.

We searched three major databases, namely Google Scholar, Business Source Premier, and ProQuest Dissertations and Theses, for studies published or made available between 2000 and June 2026. We also searched in key entrepreneurship conference databases, including the

Babson College Entrepreneurship Research Conference and the Academy of Management Annual Meeting. The search was further complemented with backward and forward citation tracking of the source articles for each DT measurement instrument (Dahling et al., 2009; Jonason & Webster, 2010; Jones & Paulhus, 2014; Paulhus & Williams, 2002). Our keyword search included a combination of dark-triad-related terms and their specific scales (e.g., "Machiavellianism", "psychopathy", "narcissism", "dark triad", "SD3") with entrepreneurship-related terms (e.g., "entrepreneurial intention", entrepreneurial intention scale"). This allowed us to initially identify 4,804 records after deduplication. We report a detailed overview of search terms used in Appendix 2.A.

Studies were eligible for inclusion if they met three criteria. First, the study had to measure at least one DT trait (Machiavellianism, narcissism, or psychopathy) using an established instrument such that scores could be assigned to one of the three traits individually. Studies reporting only a composite DT score or sub-dimensions without a recoverable trait-level score were excluded. Second, the study had to measure either commercial entrepreneurial intention (CEI) or social entrepreneurial intention (SEI) using a validated scale or a single-item entrepreneurial-intention question (Krueger, 1993). Third, the study had to report a correlation coefficient between the DT trait and the intention measure, or sufficient statistical information (Cohen's *d*, group means and standard deviations) to permit conversion to a correlation coefficient. Studies reporting only multivariate or path-model coefficients were also excluded when the corresponding bivariate correlations could not be obtained through author data requests. We applied no restrictions on publication status, accepting peer-reviewed articles, dissertations, and conference papers to mitigate publication bias. The application of these criteria resulted in a final meta-analytic sample of 40 papers, representing 48 independent samples and a total of N = 24,607 participants. The full workflow is shown in Figure 2.2, and Appendix 2.B details the studies included and key characteristics.

Figure 2.2 *Literature Search Process*



Coding and effect sizes

The three DT traits were coded based on each study's reported total score for each trait. When studies reported only sub-dimensions (e.g., primary and secondary psychopathy), we computed a linear composite, following standard practice in DT meta-analytic work (e.g., Brownell et al., 2021). When a single primary study reported results from multiple independent samples (e.g.,

separate country samples within one paper), we entered each sample as a separate effect size, consistent with Hunter and Schmidt's (2004) recommendation. CEI was most commonly measured using the Entrepreneurial Intention Questionnaire (Liñán & Chen, 2009) or single-item formulations (Krueger, 1993); SEI was mostly measured using Liñán and Chen's (2009) or Hockerts's (2017) scales. Most studies measured DT traits using multidimensional instruments such as the Dirty Dozen (Jonason & Webster, 2010) or the Short Dark Triad Scale (Jones & Paulhus, 2014), as well as trait-specific instruments such as the Narcissistic Personality Inventory (Ames et al., 2006; Schütz et al., 2004). For each independent sample, we extracted the bivariate correlation between each DT trait and the relevant intention measure as the effect size of interest.

Meta-analytic approach

Before conducting the meta-analysis, we corrected each effect size for unreliability at the sample level using Cronbach's α reported in the primary study, following Hunter and Schmidt (2004). For entrepreneurial-intention measures of two or more items, we applied the study-reported reliability; for single-item yes/no measures, no reliability correction was applied. For DT traits, reliability correction was applied in every case. Where a primary study did not report reliability, we used the reliability from the original validation study of the relevant scale, which occurred only twice in our sample (once for narcissism, Hanson et al., 2024; once for CEI, Baldegger & Klösel, 2023). The mean reliabilities are α = .80 (*S.D.* = .09) for Machiavellianism, α = .79 (*S.D.* = .09) for narcissism, and α = .78 (*S.D.* = .08) for psychopathy. To synthesize effects across studies of differing sample sizes, individual corrected correlations were weighted by their inverse variance before aggregation (Eisend, 2020), and we used a random-effects model to accommodate between-study heterogeneity in true effect sizes. Analyses were conducted in IBM SPSS 31. For each trait-domain cell (see Table 2.1), we report the inverse-variance weighted correlation, the inverse-variance weighted and corrected correlation, the corresponding standard deviation, its 95% confidence interval (CI; used to test whether the

effect differs from zero), and the 80% credibility interval (CV; used to characterize the range of plausible population effects, which is the relevant statistic for evaluating heterogeneity, whereby a relatively large CV suggests the existence of moderator variables). To assess heterogeneity, we report the I^2 statistic, indicating the variance not related to statistical artifacts (Higgins et al., 2003), with an I^2 larger than 25% implying the potential presence of moderator variables.

We then ran meta-regression analyses with the meta-regression tool in IBM SPSS 31 to test theoretically motivated moderators of the trait-intention relationships: mean sample age, which proxies exposure to and accumulated experience within different social exchange environments; sample gender composition, given gendered expectations of entrepreneurial roles and prosocial conduct; WEIRD sampling, which speaks to cross-cultural variation in reciprocity norms and prosocial expectations and therefore should differentially affect SEI relative to CEI; and the DT measurement instrument used, which tests whether the observed effects are robust to construct operationalization. Specifically, we distinguish between the established DT measures Dirty Dozen, and Short Dark Triad Scale (coded as 1) and trait-specific instruments such as the Narcissistic Personality Inventory, and less established measures (coded as 0). These four moderators were chosen because each map onto a theoretical channel through which our anticipatory-SET account predicts variation in the trait-intention link, and because the scale of our synthesized sample allows moderation tests that prior meta-analytic work in this area (Brownell et al., 2021) could not accommodate.

Publication bias and robustness tests

We assessed publication bias and small-study effects using four complementary procedures: Duval and Tweedie's (2000) trim-and-fill analysis, Egger et al.'s (1997) regression test, Rosenthal's (1979) fail-safe *N*, and cumulative meta-analysis ordered by descending sample size. Across the focal relationships, these analyses did not reveal convergent evidence of publication bias or small-study effects. Some individual diagnostics suggested potential

asymmetry: the trim-and-fill procedure indicated missing studies for the psychopathy–CEI relationship, whereas Egger's test indicated funnel-plot asymmetry for the Machiavellianism–CEI and narcissism–CEI relationships. Because these patterns were not consistent across diagnostics, we do not interpret them as systematic evidence of publication bias. To provide a conservative estimate, however, we report the trim-and-fill-adjusted effect size for psychopathy–CEI in the main analyses; the substantive interpretation remained unchanged. All publication bias and test results are reported in Appendix 2.C. In addition, we conducted a subsample analysis by publication status, which yielded substantively similar results and is reported in Appendix 2.D.

Analysis and Results

The 48 independent samples utilized in this meta-analysis were derived from articles between 2000 and June 2026. Across samples, the sample-size-weighted mean age was 27.80 years (S.D. = 7.64), and the sample-size-weighted mean proportion of male participants was 51% (S.D. = 0.13). In Table 2.1, we present both the observed and corrected effect sizes for the relationships between Machiavellianism, narcissism, and psychopathy with CEI and SEI.

Commercial entrepreneurial intention

When examining the relationships between Machiavellianism, narcissism, psychopathy, and CEI, all three dark triad traits were significantly and positively associated with CEI (see Table 2.1). The corrected correlations were 0.16 ($p < 0.001$) for Machiavellianism, 0.24 ($p < 0.001$) for narcissism and 0.07 ($p < 0.05$) for psychopathy. These findings provide support for hypotheses H1a, H2a, and H3a. Notably, the I^2 statistic and the width of the credibility intervals indicate a potential presence of moderator variables, which will be addressed in a post-hoc analysis.

Table 2.1 *Overall Meta-Analytic Relationships*

Entrepreneurial intention	k	n	r	r_c		SD_{rc}	95% CI	80% CV	I^2
Commercial entrepreneurial intention									
Machiavellianism	24	9901	0.14	0.16	***	0.11	[0.11, 0.21]	[0.02; 0.31]	85%
Narcissism	36	17002	0.20	0.24	***	0.16	[0.18, 0.29]	[0.03; 0.44]	93%
Psychopathy	22	9604	0.09	0.07	* a)	0.12	[0.01, 0.13]	[-0.04; 0.26]	86%
Social entrepreneurial intention									
Machiavellianism	4	4264	-0.21	-0.26	***	0.08	[-0.34, -0.17]	[-0.35; -0.16]	84%
Narcissism	6	4733	0.18	0.23	*	0.27	[0.01, 0.45]	[-0.12; 0.58]	98%
Psychopathy	4	4264	-0.18	-0.23	*	0.23	[-0.45, -0.00]	[-0.52; 0.06]	98%

Note. * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$; k = number of studies, n = sample size, r = observed effect size, r_c = effect size corrected for unreliability, SDr_c = standard deviation of r_c, CI = confidence interval, CV = credibility interval, I^2 = heterogeneity statistic; a) Imputation of 5 studies in line with the trim-and-fill method; before imputation: $r_c = 0.11$*.

Social entrepreneurial intention

The results concerning the relationship between Machiavellianism, narcissism, psychopathy and SEI showed divergent patterns (see Table 2.1). Machiavellianism and psychopathy were negatively associated with SEI, with corrected correlations of -0.26 ($p < 0.001$) and -0.23 ($p < 0.05$), respectively, supporting H1b and H3b. By contrast, narcissism was positively associated with SEI, with a corrected correlation of 0.23 ($p < 0.05$), supporting H2b. As in the CEI analyses, the I^2 values and the width of the credibility intervals suggest substantial heterogeneity and the possible presence of moderating factors.

Moderation analysis

To examine whether the relationships between DT traits and entrepreneurial intentions varied across study characteristics, we conducted random-effects meta-regressions. We tested four potential moderators: mean sample age, gender composition, cultural context (WEIRD vs. non-WEIRD samples), and DT measurement instrument.

Prior research suggests that age and gender may condition the relationship between DT traits and entrepreneurial intentions (Brownell et al., 2021; Mathieu & St-Jean, 2013). This expectation is also consistent with our social exchange theorizing, because the perceived rewards, costs, obligations, and norms that govern entrepreneurial exchange may vary across age groups and gender compositions. We further examined whether effects differed between WEIRD and non-WEIRD samples. This distinction is theoretically relevant because social exchange expectations, including reciprocity, autonomy, obligation, and stakeholder accountability, are culturally embedded and may differ systematically across institutional and cultural contexts (see Shepherd et al., 2025). In addition, we examined whether the choice of DT measurement instrument moderated the observed relationships. Brownell et al. (2021) identified measurement differences as a potential boundary condition but did not test this possibility meta-analytically. This issue is important because short omnibus measures of the DT may differ from trait-specific instruments in reliability, construct coverage, and

discriminant validity. For example, White and Marino (2020) found that psychopathy showed stronger effects when measured with Levenson et al.'s (1995) scale than with the Dirty Dozen (Jonason & Webster, 2010). Similarly, Leung et al. (2021) found differences in the narcissism–CEI relationship depending on whether narcissism was measured with the NPI-16 (Ames et al., 2006) or the Dirty Dozen. Hmieleski and Lerner (2016) and Brownell et al. (2021) likewise noted that short DT measures may affect observed relationships because of reliability and validity concerns. Accordingly, we created a dummy variable to distinguish short omnibus DT instruments from alternative measures. Studies using the Dirty Dozen (Jonason & Webster, 2010) or the Short Dark Triad Scale (Jones & Paulhus, 2014) were coded as 1, whereas studies using trait-specific or other DT instruments were coded as 0. Due to the limited number of studies reporting all moderators simultaneously, we followed Brownell et al. (2021) and conducted separate meta-regression analyses for each moderator.

Table 2.2 and 2.3 report the moderator analyses. For CEI (see Table 2.2), age showed marginal evidence of moderating the Machiavellianism–CEI relationship ($b = 0.01$, $p < 0.10$), indicating that this association was stronger in older samples. Age did not moderate the narcissism–CEI or psychopathy–CEI relationships. Gender significantly moderated the narcissism–CEI relationship ($b = 0.37$, $p < 0.05$), such that the positive association between narcissism and CEI was stronger in samples with a higher proportion of men. Gender also showed marginal evidence of moderation for the Machiavellianism–CEI relationship ($b = 0.42$, $p < 0.10$) and the psychopathy–CEI relationship ($b = 0.43$, $p < 0.10$), again suggesting stronger associations in more male samples. WEIRD context did not moderate the Machiavellianism–CEI or narcissism–CEI relationships but showed marginal evidence of moderating the psychopathy–CEI relationship ($b = 0.11$, $p < 0.10$), with stronger effects in WEIRD samples.

Table 2.2 *Moderation Analysis: Commercial Entrepreneurial Intention*

Entrepreneurial intention	k	n	b	SE	R^2	CI (95%)	I^2
Commercial entrepreneurial intention							
Machiavellianism							
Age	14	5615	0.01 +	0.00	22.7%	[-0.00; 0.02]	77.3%
Gender	22	9274	0.42 +	0.24	12.2%	[-0.09; 0.92]	83.3%
WEIRD	24	9901	0.00	0.05	0.0%	[-0.11; 0.10]	85.4%
DT measurement	24	9901	-0.08 †	0.05	7.8%	[-0.18; 0.03]	83.7%
Narcissism							
Age	17	6003	0.00	0.00	0.0%	[-0.01; 0.01]	80.7%
Gender	34	16375	0.37 *	0.17	11.7%	[0.02; 0.72]	91.9%
WEIRD	36	17002	0.01	0.06	0.00%	[-0.10; 0.13]	93.2%
DT Measurement	36	17002	-0.13 *	0.05	14.3%	[-0.24; -0.03]	91.1%
Psychopathy							
Age	14	5918	0.00	0.00	10.1%	[-0.00; 0.01]	71.7%
Gender	21	9377	0.43 +	0.21	17.9%	[-0.01; 0.87]	82.2%
WEIRD	22	9604	0.11 +	0.05	13.6%	[-0.00; 0.22]	84.3%
DT measurement	22	9604	-0.14 *	0.06	17.3%	[-0.26; -0.01]	83.9%

Note. † $p < 0.2$, + $p < 0.1$, * $p < 0.05$, ** $p < 0.01$. *** $p < 0.001$; k = number of studies, n = sample size, b = regression estimate, SE = standard error, R^2 = variance in effect sizes explained by moderators, 95% CI = 95% confidence interval of b, I^2 = heterogeneity statistic.

Table 2.3 *Moderation Analysis: Social Entrepreneurial Intention*

Entrepreneurial intention	k	n	b	SE	R^2	CI (95%)	I^2
Social entrepreneurial intention							
Machiavellianism							
Age	3	3783	0.01	0.00	85.4%	[-0.04; 0.05]	12.4%
Gender	4	4264	2.31	1.54	32.6%	[-4.30;8.92]	75.5%
WEIRD	4	4264	0.15 †	0.07	73.8%	[-0.14; 0.44]	59.5%
DT measurement	4	4264	0.00 a)		0.0%		85.1%
Narcissism							
Age	5	4252	-0.01	0.03	0.0%	[-0.10; 0.08]	97.7%
Gender	6	4733	0.04	3.24	0.0%	[-8.95; 9.03]	98.5%
WEIRD	6	4733	0.41 +	0.17	49.1%	[-0.07; 0.89]	96.0%
DT measurement	6	4733	-0.29	0.22	13.2%	[-0.91; 0.32]	98.0%
Psychopathy							
Age	3	3783	0.01 †	0.00	100%	[-0.03; 0.04]	0.00%
Gender	4	4264	6.98 †	2.96	61.9%	[-5.76; 19.73]	94.0%
WEIRD	4	4264	0.44 *	0.09	90.7%	[0.04; 0.85]	82.3%
DT measurement	4	4264	a)				97.9%

Note. † $p < 0.2$, + $p < 0.1$, * $p < 0.05$, ** $p < 0.01$. *** $p < 0.001$; k = number of studies, n = sample size, b = regression estimate, SE = standard error, R^2 = variance in effect sizes explained by moderators, 95% CI = 95% confidence interval of b, I^2 = heterogeneity statistic; a) This parameter is set to zero as it is redundant, as the data only provides one of two values of this dichotomous variable.

Finally, the DT measurement instrument significantly moderated the narcissism–CEI relationship (b = -0.13, $p < 0.05$) and the psychopathy–CEI relationship (b = -0.14, $p < 0.05$). Given our coding, these negative coefficients indicate that effect sizes were smaller when the Dirty Dozen or Short Dark Triad Scale were used and stronger when other DT instruments were used. The measurement effect for Machiavellianism–CEI is reported for transparency (b = -0.08, $p < 0.20$).

For SEI (see Table 2.3), age did not moderate the Machiavellianism–SEI or narcissism–SEI relationships. The age effect for psychopathy–SEI is reported for transparency ($b = 0.01$, $p < 0.20$). Gender did not moderate the Machiavellianism–SEI or narcissism–SEI relationships. The gender effect for psychopathy–SEI is also reported for transparency ($b = 6.98$, $p < 0.20$) and should be interpreted cautiously given the wide confidence interval. WEIRD context significantly moderated the psychopathy–SEI relationship ($b = 0.44$, $p < 0.05$), indicating that this relationship was less negative in WEIRD samples. WEIRD context also showed marginal evidence of moderating the narcissism–SEI relationship ($b = 0.41$, $p < 0.10$), whereas the effect for Machiavellianism–SEI is only reported for transparency ($b = 0.15$, $p < 0.20$). The DT measurement instrument did not moderate the narcissism–SEI relationship. For Machiavellianism–SEI and psychopathy–SEI, this moderator could not be estimated because the available studies did not vary on the dichotomous measurement indicator.

Overall, the moderator analyses suggest that gender and measurement choices partly explain heterogeneity in CEI relationships, whereas WEIRD context appears more relevant for SEI relationships, especially for psychopathy. However, the SEI moderator results should be interpreted cautiously because they are based on a small number of studies. Effects at the $p <$ .20 level are reported for transparency only and are not interpreted as statistically significant.

Discussion

This paper examined how the DT traits relate to CEI and SEI. Building on SET, we argue that commercial and social entrepreneurship represent distinct social exchange environments. Whereas commercial entrepreneurship is more closely associated with self-interest, autonomy, competition, and value capture, social entrepreneurship places stronger emphasis on reciprocity, other-oriented value creation, and sustained relational accountability. The empirical findings are consistent with this distinction. Through meta-analytic synthesis of 48 independent samples (N = 24,607), our results reveal an empirical pattern that is both more nuanced and more theoretically generative than prior treatments of DT personality in entrepreneurship have suggested. All three DT traits relate positively to CEI, supporting the broad attraction of these individuals to entrepreneurship theorized by Brownell et al. (2021). However, when entrepreneurial intentions take a social orientation, the picture diverges sharply: Machiavellianism and psychopathy are negatively associated with SEI, while narcissism remains positively associated.

Narcissism represents the key exception to the negative SEI pattern observed for Machiavellianism and psychopathy. Its positive association with SEI suggests that social entrepreneurship may also be attractive for self-enhancing reasons. Specifically, narcissistic individuals may perceive social entrepreneurship as a domain that offers admiration, legitimacy, public recognition, and status. Thus, the positive narcissism–SEI relationship suggests that social entrepreneurial intention need not be rooted exclusively in altruistic or other-oriented motives.

Our post-hoc moderator analyses further qualify our interpretation by suggesting that the relationships between DT traits and entrepreneurial intentions are not context-free. For CEI, gender composition and measurement instruments emerged as particularly relevant. The positive associations between DT traits and CEI tended to be stronger in samples with a higher proportion of men, especially for narcissism. One interpretation is that gendered expectations

around entrepreneurship, competitiveness, status striving, and assertive self-presentation may condition how strongly DT traits are linked to commercial entrepreneurial attraction. However, because gender composition was coded at the sample level, this finding should not be interpreted as direct evidence of individual-level gender moderation. It may also reflect compositional differences, such as higher average levels or greater variance in DT traits and CEI in samples with a higher proportion of men. Measurement instrument also mattered: effects for narcissism and psychopathy were smaller when studies used short omnibus DT instruments such as the Dirty Dozen or the Short Dark Triad. This suggests that measurement choices are not merely technical decisions but may affect the observed strength of trait–intention relationships by capturing different facets of the DT traits with varying precision.

For SEI, cultural context appeared especially relevant. WEIRD context significantly moderated the psychopathy–SEI relationship, such that the negative association was less pronounced in WEIRD samples than in non-WEIRD samples. This finding is consistent with the idea that social entrepreneurship may carry different exchange meanings across cultural and institutional contexts. In non-WEIRD contexts, social entrepreneurship may be more strongly embedded in communal obligation, beneficiary responsibility, and relational accountability, making it especially incompatible with psychopathic tendencies toward low empathy and limited concern for others. In WEIRD contexts, by contrast, social entrepreneurship may be interpreted more strongly through broader entrepreneurial logics of autonomy, self-expression, visibility, and individual initiative, thereby attenuating the negative psychopathy–SEI relationship. WEIRD context also showed marginal evidence of moderating the narcissism–SEI relationship, suggesting that cultural environments may shape whether social entrepreneurship is perceived as a route to admiration, public recognition, and symbolic legitimacy. However, because WEIRD classification is a broad sample-level proxy and the number of SEI studies remains small, these moderation findings should be interpreted cautiously. Nevertheless, they point to an important boundary condition: the link between dark traits and entrepreneurial

intentions depends not only on personality and domain, but also on the social and cultural context in which entrepreneurial roles are evaluated.

Theoretical Implications

Our study offers several theoretical contributions. First, we contribute to entrepreneurial intention research by showing that the relationship between DT traits and entrepreneurial intention inherently depends on the entrepreneurial domain under consideration. Prior research often treats entrepreneurial intention as a relatively general construct, defined as an individual's conscious intention to start a business or engage in entrepreneurial action (Bird, 1988; Krueger et al., 2000; Thompson, 2009), and explains this emergence through Theory of Planned Behaviour (Ajzen, 1991) or the Entrepreneurial Event Model (Shapero & Sokol, 1982). We provide a novel theoretical explanation for the emergence of specific entrepreneurial intentions in distinct environments (e.g., Donaldson, 2019; Liñán & Fayolle, 2015). Our findings underscore that commercial entrepreneurial intention and social entrepreneurial intention are not interchangeable outcomes. Commercial entrepreneurship and social entrepreneurship differ in the value they prioritize, the stakeholders they implicate, and the exchange expectations they impose on founders (Bacq & Alt, 2018; Hockerts, 2017; Mair & Martí, 2006). The results indicate that DT traits do not uniformly amplify or hamper entrepreneurial intentions but rather shape which entrepreneurial social exchange environments individuals find attractive to enter.

This domain-specific view also refines existing explanations for why dark personalities are attracted to entrepreneurship. Brownell et al. (2021), drawing on Nietzsche's will-to-power perspective, argued that individuals high in DT traits may be drawn to entrepreneurship because it offers domination, influence, and control over others. Our findings suggest that this account explains an important motivational push but remains incomplete without theorizing the exchange environment in which power is pursued. Commercial and social entrepreneurship can both offer leadership, founder authority, visibility, and status. If entrepreneurial intentions were governed solely by a desire for domination and power, both domains should attract DT

personalities in similar ways. However, our meta-analysis shows that Machiavellianism and psychopathy are positively associated with CEI but negatively associated with SEI, suggesting that the attractiveness of entrepreneurship depends not only on whether a domain offers power, but also on the social exchange conditions under which that power must be exercised.

Second, we contribute to SET by extending it to the formation of entrepreneurial intentions. SET suggests that individuals evaluate social relationships in terms of expected rewards, costs, obligations, and reciprocity (Blau, 1964; Emerson, 1976; Cropanzano & Mitchell, 2005). While this perspective has often been used to explain behavior within existing relationships or organizations, our theoretical account suggests that individuals may also anticipate the exchange conditions of future entrepreneurial roles. In this sense, entrepreneurial intentions are not only evaluations of feasibility, desirability, or career attractiveness (Ajzen, 1991; Krueger et al., 2000), but also anticipatory judgments about the kinds of social exchanges that a particular entrepreneurial path will require. In SET terms, individuals select themselves into the exchange environments they find attractive. Consequently, individuals high in DT traits evaluate commercial and social entrepreneurship differently because these domains vary to the extent to which they tolerate unilateral, instrumental, or reciprocal forms of exchange and therefore impact the intention development differently.

Third, our study contributes to the emerging conversation on the darker side of social entrepreneurship. Social entrepreneurship is often framed around prosocial motivation, empathy, compassion, and social value creation (Bacq & Alt, 2018; Hockerts, 2017; Miller et al., 2012). Our findings suggest that SEI may also arise from self-enhancing motives. Whereas Machiavellianism and psychopathy conflict with the relational and prosocial expectations embedded in social entrepreneurship (Bacq & Alt, 2018; Mair & Martí, 2006; Wu et al., 2020), narcissism remains compatible with SEI under specific conditions (Kim et al., 2023; Voegel, 2017; Wu et al., 2022). We interpret this as evidence of a pattern we call *reciprocal but self-serving prosociality*, whereby narcissistic individuals may be attracted to prosocial exchange

when they expect it to secure admiration, recognition, legitimacy, or status (Brownell et al., 2021; Brunell et al., 2008; Jonason & Webster, 2010; Paulhus & Williams, 2002). This interpretation reaffirms a foundational tenet of SET: exchanges do not necessarily have to be in kind to sustain a relationship, but they must be valued reciprocally by the parties involved (Blau, 1964; Cropanzano & Mitchell, 2005; Emerson, 1976). Social entrepreneurship may appear to offer narcissistic individuals such a setting. Narcissistic individuals may anticipate an exchange in which beneficiaries receive social value, while they themselves receive symbolic returns such as admiration, status, or social prestige (Hmieleski & Lerner, 2016; Kim et al., 2023; Wu et al., 2019) which they find intrinsically rewarding. Their interest in social entrepreneurship therefore need not stem from altruistic motivation (Hmieleski & Lerner, 2016; Jonason & Webster, 2010) but social entrepreneurship may instead be a context in which helping others and helping the self are mutually reinforcing (Voegel, 2017).

This theoretical explanation clarifies why narcissism diverges from Machiavellianism and psychopathy. Narcissistic individuals may be willing to accept the reciprocal demands of social entrepreneurship when these demands also serve ego-enhancing goals (Hmieleski & Lerner, 2016; Wu et al., 2019). Machiavellianism and psychopathy, by contrast, are less compatible with social entrepreneurial exchange because the returns they seek, such as material gain, dominance, or instrumental control (Jones & Paulhus, 2014; Lien et al., 2022), are not reliably produced by beneficiary-oriented and relationally accountable forms of social exchange. Consequently, social ventures may attract individuals who are genuinely other-oriented as well as individuals who see social entrepreneurship as a pathway to visibility, legitimacy, or admiration. Recognizing this heterogeneity is important for building more complete theories of social entrepreneurship.

Practical Implications

Our findings also have implications for entrepreneurship educators, incubators, accelerators, social venture funders, and policymakers. First, entrepreneurship education should avoid

presenting entrepreneurial ambition as inherently socially beneficial. Individuals may be attracted to entrepreneurship for different reasons, including autonomy, influence, wealth, admiration, or control. Programs that teach entrepreneurship should therefore integrate ethical reflection, stakeholder responsibility, and relational accountability into entrepreneurship training. This is particularly important when supporting individuals who display strong self-promotional, manipulative, or low-empathy tendencies.

Second, social entrepreneurship programs should pay closer attention to the distinction between genuine social value creation and impression management. Because narcissism is positively associated with SEI, educators and incubators should not assume that interest in social entrepreneurship automatically reflects prosocial motivation. Selection and mentoring processes should therefore examine not only the attractiveness of a social venture idea but also the founder's orientation toward beneficiaries, willingness to share power, responsiveness to feedback, and commitment to measurable social impact.

Third, and relatedly, funders, accelerators, and governance bodies should design mechanisms that reduce the risk of self-serving behavior in social, but also in commercial ventures. This may include stronger stakeholder representation, transparent impact measurement, beneficiary feedback systems, ethical due diligence, and governance structures that limit unilateral decision-making. However, such mechanisms are not intended to exclude ambitious or charismatic founders but rather help ensure that social or even commercial goals are not displaced by individual status-seeking, image-building, or personal control.

Finally, entrepreneurship support organizations should recognize that dark traits may have both enabling and constraining effects. Traits such as confidence, risk tolerance, and desire for influence may help individuals initiate entrepreneurial action. However, when these tendencies are accompanied by manipulation, low empathy, or disregard for reciprocity, it may undermine trust and long-term value creation. Practical interventions should therefore focus

less on identifying "good" or "bad" personalities and more on developing structures that channel entrepreneurial potential toward responsible exchange relationships.

Limitations and Future Research Directions

Our study has several limitations that could serve as opportunities for future research. First, we examine CEI and SEI, not actual venture creation or venture performance. Intentions are important because they capture early-stage motivational orientations and are widely used in entrepreneurship research. However, research shows that intentions do not necessarily translate into action (e.g., Bogatyreva et al., 2019; Dixit et al., 2025). Future research should examine how DT personalities behave once they enter commercial or social entrepreneurship, and whether their ventures create sustainable economic or social value in the respective environments. We propose the use of longitudinal designs because these personalities may be attracted at the intention stage but become more problematic during venture development (Brownell et al., 2021; Hmieleski & Lerner 2016), when social exchange relationships are becoming increasingly unilateral.

Second, although our empirical study is limited to CEI and SEI, the social exchange logic developed here is not restricted to this distinction. Entrepreneurial domains vary in the exchange conditions they create. While some grant autonomy and control, others impose stronger accountability, and still others combine commercial value capture with social or environmental obligations. Future research should examine whether DT traits predict attraction to more specific entrepreneurial intentions, such as corporate, franchise, or sustainable entrepreneurial intentions, as well as to different venture types, such as lifestyle or high-growth ventures. Such work would help establish whether traits shape entrepreneurial intentions through a general desire for entrepreneurship or through more precise attraction to domain-specific exchange environments.

Third, the evidence base for SEI remains smaller than that for CEI. Despite our efforts to include the most recent studies, the number of studies limits our ability to perform moderation

analyses in the relationships between Machiavellianism/psychopathy and SEI. Future studies should consistently report bivariate correlations, reliabilities, sample age, gender composition, cultural context, and measurement instruments to enable more precise meta-analytic tests. Relatedly, measurement heterogeneity remains an important limitation (Brownell et al., 2021). The included studies used different instruments to assess DT traits, including short multidimensional scales and trait-specific measures. In an initial attempt, we analyzed DT measurement as a moderator, and found significant differences, which support the notion that more research is needed. In particular, the instruments used may capture different facets of Machiavellianism, narcissism, and psychopathy, which can affect the size and direction of observed relationships. Future examinations could yield fine-grained explanations about which facets of each trait are theoretically relevant and actively shape individual's intentions. For example, grandiose and vulnerable narcissism may have different implications for SEI, just as primary and secondary psychopathy may differ in their relationships with reciprocity, empathy, and risk. In essence, greater conceptual and measurement precision would help move the field beyond broad trait-level associations toward facet-level explanations.

Finally, future research should investigate the mediating mechanisms implied by our theory. Our social exchange account suggests that the relationships between DT traits and entrepreneurial intentions may operate through anticipated social exchange fit. Yet the available primary studies do not directly measure perceived reciprocity, expected social rewards, anticipated control, motives, beneficiary orientation, or tolerance for relational obligations. This leaves open the question of whether individuals high in narcissism are attracted to social entrepreneurship because they anticipate admiration, legitimacy, and public recognition, whereas individuals high in Machiavellianism and psychopathy form weaker SEI because they perceive social value creation as costly, restrictive, or misaligned with their goals. Given the possible downstream implications for beneficiaries, funders, and venture governance, future studies should directly test these mechanisms using longitudinal, experimental, or mediation

designs. Such work would move the literature beyond documenting trait–intention associations toward explaining the anticipatory processes through which dark traits shape attraction to different entrepreneurial domains.

Conclusion

We examined the relationships between DT personality traits and intentions for social and commercial entrepreneurship. By theorizing upon SET, we present a thorough explanation into how and why the DT traits differently relate to the formation of SEI and CEI. In doing so, we hope that our findings act as a catalyst for researchers to delve deeper into how intentions are shaped by social exchange settings, personality characteristics as well as demographic and cultural aspects.

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Chapter 3: Co-Founder Selection from a Marriage Market Perspective: How the Dark Triad Shapes Judgments of Interpersonal Attraction, Resources, and Equity Demand

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Abstract:
Co-founder selection is a pivotal decision in new venture formation, yet the underlying drivers through which lead founders evaluate potential partners remain underexplored. Drawing on insights from marriage market theory, we conceptualize co-founder selection as an act of individuated judgment guided by cooperative logic and associated joint utility projection, wherein lead founders assess co-founder candidates based on interpersonal attraction, resource contribution, and equity demand. We further propose that lead founders' dark triad shapes this judgmental process from joint utility logic to personal utility maximization. Using a conjoint experiment with 206 entrepreneurs making 3,296 co-founder selection decisions, we find that interpersonal attraction and resource contribution positively influence willingness to select a co-founder candidate, whereas higher equity demand reduces candidate attractiveness. Critically, lead founders higher in dark triad display distinct patterns: they discount interpersonal attraction and display heightened aversion to equity dilution—assessments that indicate their prioritization of personal over joint value creation. Taken together, these findings reveal how dispositional tendencies reshape the judgments underlying co-founder selection, indicating a shift away from the cooperative logic assumed in co-founder selection toward greater emphasis on personal utility considerations. We discuss theoretical implications of these findings and offer practical guidance for navigating the complexities of co-founder selection.

Keywords: Co-Founder Selection, Marriage Market Theory, Dark Triad, Equity Demand, Conjoint Analysis, Judgment, Decision-Making**.**

Introduction

Co-founder selection is a foundational decision in new venture creation. A substantial body of research demonstrates that the people who join the founding team shape the venture's structure, decision-making processes, and resource allocations (Klotz et al., 2014). Considering these enduring consequences, prior work shows that founders do not approach this decision arbitrarily (Lazar et al., 2020). Lead founders commonly consider individuals who offer interpersonal compatibility (Forbes et al., 2006) and attend to perceived complementarities in skills and resources (Jin et al., 2017). Despite these considerations, interpersonal difficulties and conflict remain pervasive within co-founder relationships (Howell et al., 2024), indicating that the decision processes underpinning co-founder selection, and the criteria considered within them, have yet to be fully theorized and empirically evidenced. What is required, therefore, is a fine-grained account of the co-founder selection process that moves beyond structural antecedents to illuminate the evaluative mechanism operating within it.

We advance that such fine-grained understanding is grounded in the *lead founder's judgment* through which a potential co-founder is assessed for compatibility and complementarity, as well as for the potential risks and threats. Judgment functions as a cognitive mechanism for individual fit, reflecting models of co-founder matching that emphasize aspiration driven search in the formation of effective entrepreneurial teams (Gray et al., 2024a; Wasserman, 2012). However, while it is the lead founder who determines who is a suitable co-founder candidate, literature has paid limited attention to founder judgment in co-founder selection. This lacuna can be attributed, in part, to a tendency in prior research to examine downstream co-founder team outcomes—such as diversity, cohesion and performance (e.g., Breugst et al., 2015; Lazar et al., 2022)—over the upstream assessments that shape founders' initial partner selection decisions. Yet examining these upstream assessments is key, considering that co-founder selection constitutes a high stakes relational commitment (Brinckmann & Hoegl, 2011; Hellmann & Wasserman, 2017), one that likely differs

systematically due to the dispositions founders bring to these assessments. Such differences may fundamentally alter how a lead founder assesses the characteristics exhibited by a potential co-founder and judges their implications.

To address this shortcoming, we offer a theory-driven account of how lead founders evaluate potential co-founders and how dispositional tendencies shape these judgments. Specifically, we adopt elements of marriage market theory (Becker, 1973) as an integrative logic for theorizing co-founder selection. Although the marriage metaphor is commonly used in entrepreneurship (Howell et al., 2022; Wasserman, 2012), its formal logic—centered on cooperative surplus creation and joint utility projection (Becker, 1973, 1974; Chiappori, 2020)—has not been applied to co-founder selection research. We draw on the behavioral logic underlying marriage market theory to consider how founders weigh interpersonal attraction, resource contribution, and equity demand as affective, instrumental, and distributive characteristics in co-founder selection judgments (Forbes et al., 2006; Hellmann & Wasserman, 2017; Lazar et al., 2020, 2022; Patzelt et al., 2021).

We then propose that just as individual dispositions shape marital partnering, they similarly influence judgments underlying co-founder selection. Here, we draw on prior research indicating that the dark triad is a highly influential disposition when it comes to forming long-term relationships (Jonason et al., 2009; Paulhus & Williams, 2002). Leveraging this insight, we investigate the role of lead founders' dark triad in co-founder selection. The dark triad reflects a constellation of socially aversive traits that fuel one's disposition toward callousness, self-interest, and manipulative orientation (Furnham et al., 2013)—commonly referred to as the dark triad core (Jones & Figueredo, 2013)[1]. Individuals higher in these traits typically pursue self-enhancing goals (Kajonius et al., 2015) and adopt a transactional, low reciprocity approach

[1] We adopt the dark triad "core" approach, which captures the stable, underlying tendency towards opportunistic and self-serving behavior that unites the three subdimensions (Machiavellianism, narcissism, psychopathy) of the dark triad (Furnham et al., 2013; Paulhus & Williams, 2002; Schermer & Jones, 2020). Studying the core allows researchers to isolate the fundamental mechanism driving dark-side decision-making (Jones & Figueredo, 2013; Jones & Neria, 2015).

to relationships (Jonason et al., 2009), reflecting tendencies that we argue strain marriage market's cooperative surplus logic. These tendencies suggest a potential boundary condition to the commonly theorized resource complementarities and relational embeddedness that are believed to drive entrepreneurial co-founder formation (e.g., Discua Cruz et al., 2013; Forbes et al., 2006; Lazar et al., 2020).

We test our theory with data from a conjoint experiment where 206 U.S. entrepreneurs made 3,296 co-founder selection decisions. The conjoint data was supplemented by a post-experiment survey that provided data to empirically examine how lead founders with varying levels of dark triad assess potential co-founders across differing levels of interpersonal attraction, resource contribution, and equity demand. We find that interpersonal attraction, resource contribution, and equity demand each exert significant independent effects on co-founder selection decisions, and importantly, variance in lead founders' dark triad significantly moderates these effects, often in counterproductive ways relative to the commonly theorized cooperative logic that underpins co-founder selection.

Our conceptual advancements and empirical evidence yield three contributions. First, we advance entrepreneurship theory by formally introducing marriage market theory into the co-founder selection conversation. Integrating marriage market logic (Becker, 1973, 1974) with individual judgment (Wood et al., 2014) produces a framework that explains how founders with differing cognitive predispositions evaluate social-emotional, instrumental, and distributive considerations, in their co-founder selection decisions. In doing so, we move beyond fragmented explanations of co-founder selection and offer an integrative account of how founders incorporate these three key considerations when selecting co-founders. This understanding also foregrounds the judgments that precede co-founder selection, rather than the dynamics and consequences that follow it, which offers a novel account of co-founder selection as a matching process under relational judgment constraints. Second, we extend scholarly understanding of the influence of founders' predispositions in systematically shaping

partner selection (Wasserman, 2017), documenting that dark triad tendencies can distort cooperative judgment, shifting founders' evaluation of potential co-founders from joint utility to personal utility maximization. This insight opens new avenues for explaining variance in co-founder selection. Third, and resultantly, we contribute back to marriage market theory (Becker, 1973) by integrating judgment as a mechanism through which cooperative surplus and utility assessments are instrumentalized. Doing so, we identify higher levels of the dark triad as a boundary condition for joint utility assumptions in marriage markets, thereby surfacing insights into partner selection that are applicable beyond entrepreneurship.

Theory and Hypotheses

Individual Judgment in Co-Founder Selection Decisions

Co-founder selection decisions are the strategic and interpersonal choices founders make when selecting partners to join founding teams (Fu et al., 2022). These decisions are critical in shaping the trajectory of new ventures, as who joins the founding team has long lasting implications for the organization and performance of the venture (Lazar et al., 2022; Patzelt et al., 2021). Yet despite their importance, the judgments by which individual lead founders arrive at these decisions remain poorly understood. While a growing body of work has examined what founders look for in co-founders—such as interpersonal characteristics, or complementary skills (Discua Cruz et al., 2013; Forbes et al., 2006; Lazar et al., 2022)—we know considerably less about how lead founders select among co-founder candidates (Gray et al., 2024b; Lazar et al., 2020). In other words, while research has made important progress on understanding the criteria lead founders draw on when selecting co-founders, it has largely assumed a uniform evaluative logic—leaving the question of how individual differences in lead founders shape co-founder selection decisions underexplored.

We propose that co-founder selection represents, at its core, an act of *individuated judgment* (Fiske & Neuberg, 1990) in which lead founders assess co-founder candidate information through their predispositions. Because founding teams often form before the

venture has achieved operational viability (Reynolds et al., 2005; Shepherd et al., 2021), lead founders exercise this judgment with limited information and high stakes. Specifically, lead founders cannot observe candidates over time or in collaborative action but must instead evaluate them based on attributes suggestive of their fit, value, and intentions (Lazar et al., 2020). These conditions make judgment particularly susceptible to the influence of the lead founders' individual dispositions (Hmieleski & Lerner, 2016; Shepherd et al., 2015; Wood et al., 2014). Hence, two lead founders facing the identical co-founder candidate may make very different judgments and resultant selection decisions, depending on the dispositional tendencies they bring to the evaluation.

Consequently, we seek to better understand the role of individual-level differences in co-founder selection. Prior research has traditionally emphasized interpersonal attraction and resource seeking as selection drivers (Forbes et al., 2006; Lazar et al., 2020). Interpersonal attraction emphasizes preference for partners with whom founders share social and emotional connection (Discua Cruz et al., 2013; Ruef et al., 2003), whereas resource-seeking highlights founders selecting partners who contribute valuable skills, expertise, or other assets (Aldrich & Kim, 2007; Forbes et al., 2006; Mosey & Wright, 2007). In parallel, co-founder selection involves the equity demands of potential partners—that is, the share of venture ownership a co-founder expects in return for their contribution. Equity division often serves as an indicator of the lead founder and the co-founder candidate's expected return and their position in the venture (Åstebro, 2012; Breugst et al., 2015; Mueller & Hennicke, 2024).

Taken together, prior research paints a picture where interpersonal attraction, resource-seeking, and equity considerations are fundamental factors in co-founder selection (Breugst et al., 2015; Wasserman, 2012; Weissenböck et al., 2024). However, these factors reside in different studies and have yet to be considered in a unifying framework, such that the influence of individual differences on them might be evaluated. In other words, what is missing is an integrative theoretical framework that can reflect the broad range of considerations related to

co-founder selection decisions and thereby explain the judgment underlying them. In response, we offer elements of marriage market theory as a unifying frame.

Towards a Marriage Market Theory Perspective on Co-Founder Selection

Just as marriage is a recognized union between individuals that establishes rights and obligations between them, so too is the formal establishment of a co-founder relationship where each partner will have an equity stake in the venture (Klotz et al., 2014; Wasserman, 2012). Because of the close parallels between co-founder relationships and marriage, the metaphor of marriage is often used to emphasize the gravity of co-founder selection decisions (Howell et al., 2022; Wasserman, 2012). This analogy mirrors work in psychology where relationships among co-founders echo dynamics of romantic partnerships in terms of intensity and vulnerability (Discua Cruz et al., 2013; Gray et al., 2024b) especially as they "worry about how to properly raise their 'baby' (i.e., startup venture)" (Howell et al., 2022, p. 2424).

Given these parallels, we draw on marriage market theory (Becker, 1973) to formally conceptualize co-founder selection as a marriage-like process that is underpinned by individual judgment. To do so, we build on Becker's (1973) seminal work on marriage markets that offers two fundamental principles: (1) given the underlying competition in seeking partners, a *market* of potential partners exists; and (2) individuals appraise potential marriage partners by considering the anticipated *joint utility* created through the prospective partnership, alongside their personal share of it[2].

Leveraging these principles, we theorize that just as individuals search for partners in marriage markets, entrepreneurs search for co-founders in *co-founder markets*. While the notion of co-founder market is new to the conversation, the logic and evidence is relatively straightforward. A co-founder market is an informal or formal ecosystem where lead founders seek potential co-founders and interested candidates are looking to join start-up founders with

[2] Like any theory, marriage market theory represents a simplification of reality, and human relationships (whether marital or entrepreneurial) are often more complex in practice than formal models can fully capture.

promising venture ideas. In practice, such markets manifest, for example, through co-founder search platforms (e.g., CoFoundersLab, Y Combinator Co-Founder Matching Platform) and in-person matchmaking events (e.g., Venturelab Co-Founder Matchmaking, Munich Impact Co-Founder Matching). As these platforms and events grow, their development indicates that co-founder search increasingly resembles a quasi-structured market. We acknowledge that these co-founder markets are less formalized and more constrained than the marriage markets originally theorized as they tend to feature smaller pools of candidates, higher information asymmetry, and less established sorting mechanisms. These features may, in fact, amplify the importance of individual judgment in the selection process. Importantly, the core logic still applies: lead founders screen interested co-founder candidates, evaluate their profiles, inquire about the conditions of collaboration, and consider the potential personal and joint utility (i.e., collaborative benefits) arising from a potential co-founder relationship (Gray et al., 2024b).

Within co-founder markets, we advance that anticipated utilities are based on non-monetary aspects, such as social factors that qualitatively reflect one's sense of the prospective relationship's value, and on economic aspects, such as one's resource contributions that quantitatively suggest partnership benefits versus costs (Chiappori, 2020). The emphasis on these non-monetary and economic aspects comes together in different ways, ultimately coalescing into a vision of the future where the marriage is anticipated to (or not to) allow two individuals to "raise their utility level above what it would be were they to remain single" (Becker, 1973, p. 814). Hence, marriage is predicated on "an evaluation of the benefits that would be generated by the matching of any two potential spouses" (Chiappori, 2020, p. 549).

Importantly, in case of an existing *lead founder*, they must discern whether attributes of an available co-founder make them a desirable candidate—one that increases utility levels. This is what marriage theorists call "many-to-one matching" (Azevedo & Hatfield, 2018), resting on the assumption of "on-the-job search" where there is not only a strong desire, but in many cases

a practical need to find a partner (i.e., co-founder)[3]. Fulfilling this need naturally assumes that there are co-founder candidates that are willing to be a potential suitor, and therein, the lead founder's effective choice set is bounded to candidates for whom the partnership is attractive. Accordingly, the utility logic proposed by marriage market theory aligns with the previously mentioned logics of co-founder selection: interpersonal attraction and resource-seeking (Lazar et al., 2022; Ruef et al., 2003; Shah et al., 2019). While interpersonal attraction primarily emphasizes the creation of social and emotional utility, resource-seeking focuses on adding skills, knowledge and access to assets needed for the venture to create customer value, and ultimately, economic gain. In these ways, considerations of interpersonal attraction and resource-seeking are predicated on marriage market theory's core assumption that partner choice is aimed at maximizing collaborative benefits.

Additionally, marriage market theory highlights the importance of considering the distribution of benefits between spouses (Chiappori, 2020). In fact, drawing a close analogy between marriage and entrepreneurial organizations, Becker (1973, p. 825) himself suggests that "each marriage can be considered a two-person firm with […] the 'entrepreneur' who 'hires' the other […] and receives residual 'profits'." This resonates with equity split in the context of co-founder relationships, representing a venture's "first deal" (Hellmann & Wasserman, 2017). Considerations related to equity split raise an intriguing tension—oftentimes referred to as the "throne vs. kingdom" paradox (Wasserman, 2017). That is, lead founders must decide whether they want to maximize their control through retaining a large share of equity (i.e., self-interest of owning the throne), or whether they are willing to step back and accept more equitable splits with their co-founder to potentially incentivize and serve the advancement of the venture (i.e., contributing to the kingdom). In many ways the "throne vs.

[3] While marriage is a dyadic two-sided process that requires the consent of both parties, recent contributions have shown that the framework can be meaningfully employed in one side of the choice (Attanasio & Kaufmann, 2017; Bursztyn et al., 2017; Folke & Rickne, 2020; Lee, 2016). We follow these studies, adopting a unidirectional perspective in our model, in which the lead founder holds the venture idea, and thus initiates the co-founder selection decision. As a result, the lead founder typically holds more options and greater bargaining power.

kingdom" paradox mirrors what they call the "bargaining problem" in marriage market theory where partner interests or preferences differ and must be reconciled (Becker, 1973). The bargaining problem is one of many possible marriage "frictions"—factors that impede, distort, or complicate the process of matching individuals into marriages (Chiappori, 2020), such as rigid preferences that create interpersonal challenges, reducing the pool of acceptable partners (Howell et al., 2022). Because such frictions are common, marriage market theory assumes a reasonable level of intensity where individuals (i.e., lead founders) invest time and effort into evaluating options (i.e., co-founder candidates) (Mansour & McKinnish, 2018).

Combining these insights from marriage market theory with those contained in co-founder selection research, we outline a unifying frame for the socio-emotional (i.e., warmth and likability), instrumental (i.e., resource contributions), and distributive (i.e. equity demand) considerations that lead founders assess when evaluating co-founder candidates.

Interpersonal Attraction of Co-Founder Candidates

Analogous to the search for a compatible partner in marriage, co-founder selection can be understood as a judgment process in which lead founders seek partners whose interpersonal compatibility and emotional connectedness enhance the value of collaboration (Lazar et al., 2020; Ruef et al., 2003; Zellmer-Bruhn et al., 2021). In this view, social and emotional benefits constitute essential components of the joint utility that enables partnership formation. In entrepreneurship research, interpersonal attraction refers to affective orientation which prioritizes likability, interpersonal connectedness, and the enjoyment of collaborating in a venture (Lazar et al., 2020). Early studies primarily focused on surface-level aspects, such as demographic background and shared experiences, to explain relationship formation in venture teams (e.g., Forbes et al., 2006; Ruef et al., 2003; Steffens et al., 2012). More recent work, however, emphasizes that interpersonal attraction is grounded in deeper relational and interpersonal aspects, including interpersonal skills, warmth, and perceived likability, which

founders increasingly regard as critical for collaboration (e.g., Discua Cruz et al., 2013; Gray et al., 2024b; Zellmer-Bruhn et al., 2021).

Juxtaposing these insights with marriage market theory (Becker, 1973) suggests that lead founders seek to maximize the total value created through co-founder partnership formation. Within this framework, social and emotional utility captures the non-economic benefits of togetherness, such as harmony and mutual enjoyment, that reduce friction between marriage partners (Discua Cruz et al., 2013; Lazar et al., 2020). Warmth and likability in a co-founder candidate therefore convey that collaboration will be harmonious, communication will be fluid, and the relational costs of working together will be low—precisely the conditions under which joint utility is maximized. Crucially, this is not only a preference for pleasant company (Lazar et al., 2020), but rather reflects a utility-maximizing assessment that affectively aligned partners generate more valuable unions than those marked by friction, distance, or interpersonal strain (Becker, 1973; Chiappori et al., 2009). The typical lead founder is thus drawn toward warm and likable co-founders because such candidates provide high social and emotional utility that translates into coordination efficiency and relational consistency underpinning venture stability.

Accordingly, a co-founder candidate's interpersonal characteristics such as warmth and likability are expected to minimize relational frictions by enhancing communication, reducing coordination costs and conflict, and fostering interpersonal collaboration and harmony (Discua Cruz et al., 2013; Grossman et al., 2012). Consequently, higher warmth and likability enhance both the social and emotional utility of working together and the value creation that fuels the economic returns of efficient teamwork, thereby increasing the lead founder's perception of positive joint utility. Hence, we reason:

> ***Hypothesis 1****: Greater interpersonal warmth and likability of a co-founder candidate is positively associated with a lead founder's willingness to select them as a co-founder.*

Resource Contributions of Co-Founder Candidates

Viewed through the lens of marriage market theory, lead founders assess co-founder candidates based not only on the social and emotional utility they contribute to the partnership but also on their instrumental and economic value (Aldrich & Kim, 2007; Forbes et al., 2006). A resource-rich partner is attractive precisely because their contributions increase what the partnership can collectively generate beyond what either party could achieve alone (Chiappori, 2020). Within the literature, this instrumental value is commonly conceptualized through the resource-seeking perspective, which highlights the importance of assembling and leveraging assets for venture creation (e.g., Massis et al., 2018). This view suggests that co-founders are sought for their ability to enhance the venture's collective resource base and productive potential. From this standpoint, founders seek co-founders who either readily possess resources (e.g., knowledge and skills) or can obtain access to resources (e.g., through network ties) (Davidsson & Honig, 2003; Forbes et al., 2006; Mosey & Wright, 2007). Such resources encompass functional expertise (Ucbasaran et al., 2003), education background (Davidsson & Honig, 2003) or specific knowledge (Mosey & Wright, 2007), as well as access to external assets such as investor ties or financial capital (Fernández-Pérez et al., 2016; Semrau & Werner, 2014; Vohora et al., 2004).

Marriage market theory provides a precise logic for why resource contributions matter in partner selection. In Becker's (1973) framework, the economic utility of a marriage derives from each partner's productive contributions to the household. Partners are evaluated based on what they add to the joint production function—that is, the degree to which their assets, combined with those of the selecting partner, generate surplus above what either could produce independently. Applied to co-founder selection, this means that a candidate's resources are evaluated. The greater the resource contribution a co-founder candidate is perceived to make the higher the expected joint surplus and, consequently, the more attractive the candidate. This logic implies that lead founders engage in a forward-looking assessment, projecting how a

candidate's resource endowment will enhance the venture's capacity and, by extension, the economic returns available to both partners. Therefore, and consistent with marriage market theory's assumption that individuals seek to maximize the joint utility generated by a partnership (Becker, 1973), we propose that lead founders apply similar reasoning when evaluating co-founder candidates' resource contributions. Accordingly, we hypothesize:

> ***Hypothesis 2****: Greater resource contributions of a co-founder candidate are positively associated with a lead founder's willingness to select them as a co-founder.*

Equity Demand of Co-Founder Candidates

As Chiappori (2020) notes in his review of marriage market theory, the analysis of marriage seeks to answer two fundamental questions: (a) who marries whom, and (b) how are the benefits distributed between spouses? Applied to co-founder selection, these same questions translate into who the lead founder is likely to select as a co-founder and how the risk and rewards of collaboration are divided. Accordingly, lead founders must determine not only *which* candidate to select based on interpersonal attraction and resource contributions (Lazar et al., 2020) but also *how* to allocate the venture's jointly shared risk and rewards via split of equity ownership (Mueller & Hennicke, 2024; Wasserman, 2012). Hence, both marriages and co-founder relationships involve joint production and the division of jointly created benefits between partners (Becker, 1973; Chiappori et al., 2009). The benefits and the division of them are anticipatory, meaning that the actual benefits are not known at the time of the partner selection. Therefore, the lead founder must envision them and infer the appropriate split should the vision become a reality.

Entrepreneurship research underscores that equity is the dominant form of compensation for founders (Åstebro, 2012; Hall & Woodward, 2010; Wasserman, 2006) and a central incentive to grow ventures successfully (Kagan et al., 2020). It directly impacts the potential financial returns of founders (Åstebro, 2012), and has been recognized as an incentive for attracting co-founders (Chandler et al., 2005; Wasserman, 2012). Research has also shown

that equity allocation drives individual effort (Bitler et al., 2005) and shapes power dynamics, decision-making processes, and the strategic direction of the venture (Breugst et al., 2015; Hellmann & Wasserman, 2017; Mueller & Hennicke, 2024). These dynamics equate to marriage market theory's notion that individuals negotiate the terms of marriage, including roles, responsibilities, and expectations (Becker, 1974; Pollak, 2019), and we contend that one of the principal ways this negotiation unfolds in new ventures is via the potential co-founder's equity demand (i.e., percentage of ownership required for the co-founder to join). This parallels the marriage market participation constraint for the decision to marry (Pollak, 2019).

Prior research has examined how equity splits relate to venture performance (Hellmann et al., 2019; Kroll et al., 2007; Mueller & Hennicke, 2024), yet little is known about how lead founders evaluate equity demands ex ante during selection. While entrepreneurial practice often cautions against excessive equity claims (Galindo, 2023; Haasnoot, 2017), this notion lacks systematic theoretical treatment. Turning to marriage market theory for insight, equity division is akin to matching friction via the bargaining logic which is central to marital unions (Chiappori, 2020). Spouses anticipate potential "frictions," namely the anticipated post-marital benefits when deciding whether to form a union (Pollak, 2019). Analogously, lead founders anticipate post-selection equity dynamics when evaluating co-founder candidates. They recognize that initial ownership stakes determine not only each partner's returns but also relative control and voice within the venture, shaping future decision-making and power symmetry (Hellmann & Wasserman, 2017). Consequently, just as some individuals reject marriages that would generate a positive surplus because they expect to be disadvantaged in the subsequent bargaining process, a lead founder may reject an otherwise promising co-founder if their equity demand implies "too much" bargaining power and loss of control (Pollak, 2019).

This consideration is particularly salient during venture inception, where uncertainty about future value creation heightens the perceived risks associated with dividing equity (McMullen & Shepherd, 2006; Wasserman, 2012). Accordingly, we expect lead founders to

display a higher willingness to select a co-founder candidate—ceteris paribus—when the candidate's equity demand is lower. In this sense, the equity demand can be seen as the implicit price the lead founder pays to secure the co-founder's participation and value creation in the joint venture. Therefore, we reason:

> ***Hypothesis 3:*** *Greater equity demands of a co-founder candidate are negatively associated with a lead founder's willingness to select them as a co-founder.*

Individual-Level Differences in Co-Founder Selection

A foundational assumption in marriage market theory is that partner selection is guided by joint utility maximization—that is, individuals form partnerships when the surplus generated through collaboration exceeds what either party could have achieved independently (Becker, 1973; Chiappori, 2020). In the context of co-founder selection, this assumption implies that lead founders assess candidates by projecting the surplus a partnership would generate—weighing interpersonal attraction, resource contributions, and distributive arrangements (i.e., equity split) as inputs into forward-looking judgment about joint value creation.

Yet, there are arguments suggesting that the cooperative logic underlying joint utility maximization in marriage market theory is not uniformly applicable across individuals. As Pollak (2019) notes, individuals differ in the extent to which their partner evaluations reflect joint surplus considerations rather than anticipated personal utility. Hence, while the traditional marriage market model assumes that joint surplus calculations prevail (Chiappori, 2020), selection behavior can depart from this logic. This is because individuals may weigh their own anticipated returns disproportionately, discount collaborative benefits that do not directly accrue to them or prioritize personal control over maximizing the benefits of partnership (Chiappori et al., 2009; Pollak, 2019). In such cases, partner evaluation may shift from a cooperative calculus (i.e., asking what we can create together) toward a more self-interested one (i.e., asking what I can extract or retain).

We theorize that how lead founders navigate between personal and joint utility considerations depends on the dispositional orientations they bring to the evaluation (Wood et al., 2014). Lead founders process candidate information through judgment frames shaped by their individual dispositions, foregrounding certain considerations and backgrounding others, thereby constructing a subjective representation of what the partnership is worth to them (Healey et al., 2021; Forbes et al., 2006). As a result, we argue that these judgments—influenced by individual dispositional orientations—incline founders toward either cooperative or self-interested logic, thus determining whether they appraise a co-founder candidate through a joint or individual utility lens. In this context, we consider the individual dispositional orientation of the dark triad—which we elaborate in turn.

The Moderating Role of the Dark Triad in Co-Founder Selection

Building on the insights above, we theorize that an important boundary condition on the cooperative logic assumed in co-founder selection and in marriage market theory emerges when lead founders' dispositional orientations incline their judgments towards personal rather than joint utility. We contend that the dark triad represents such a condition. Research on the dark triad has gained increasing attention in entrepreneurship research (Brownell et al., 2021; Kraus et al., 2020), foregrounding the role of individuals' maladaptive characteristics such as self-serving motives and opportunistic approaches in entrepreneurial contexts (Bertl et al., 2017; Moshagen et al., 2018)[4]. More specifically, those higher on the dark triad are commonly described as callous (Jones & Paulhus, 2011) and socially exploitative (Jonason et al., 2009). Therein, dark triad individuals tend to be self-interested (Furnham et al., 2013; Paulhus & Williams, 2002), which clashes with the prevailing co-founder studies that emphasize mutual care, interpersonal reliance and collective desire for shared benefit as the foundation for

[4] Following numerous published studies, our theorizing focuses on the influence of the dark triad "core" (cf., Bertl et al., 2017; Furnham et al., 2013; Jones & Figueredo, 2013). Additional insights may flow from teasing out the influence of the individual components and we present the empirical results of the individual components in a post-hoc analysis (see Appendix 3.J).

productive cooperation (Discua Cruz et al., 2013; Lazar et al., 2020; Zellmer-Bruhn et al., 2021). Rather than assessing candidates for mutual benefit, lead founders higher on the dark triad may look for exploitable value: seeking not to maximize joint utility but to secure asymmetric gains that preserve dominance, control, and self-enhancement (Bouncken et al., 2020; Brownell et al., 2024; Harms et al., 2024). Their high social acuity and manipulative competence render them adept at identifying and extracting value from others while minimizing reciprocal obligations (Jonason et al., 2013; Jones & Paulhus, 2014). As such, they may perceive the addition of a co-founder not as a partnership of equals, but as an opportunity to acquire benefits that can be exploited for personal advancement.

Consistent with our positioning of co-founder selection as an act of individuated judgment, founders are generally expected to pursue co-founders that enhance joint utility, as outlined in the first three hypotheses. If, however, the dark triad is brought into consideration, we advance that it will reshape the judgment process such that co-founder characteristics are not processed through joint utility, but rather through a lens of personal instrumentality and control. We therefore theorize that the dark triad acts as a dispositional moderator conditioning the relationship between each of the outlined co-founder attributes and a lead founder's willingness to select them, as outlined in the arguments that follow.

Influence on co-founder candidate's interpersonal attraction. We introduced earlier that marriage market theory suggests that lead founders typically gravitate toward co-founders whose interpersonal characteristics—such as warmth and likability—convey relational harmony and promise smoother collaboration, thereby enhancing expected joint utility. This logic presumes a cooperative orientation and concern for mutual benefit. However, this assumption breaks down when lead founders exhibit higher levels of the dark triad. These founders are marked by callousness, self-centeredness, and exploitative tendencies (Jonason et al., 2009; Jones & Paulhus, 2011; Paulhus & Williams, 2002), which we contend will fundamentally alter how they assess co-founder candidates' interpersonal warmth and

likability. Individuals higher in the dark triad generally have a lower aptitude for getting along with others (Jonason et al., 2015; Paleczek et al., 2018), and are characterized by a lack of empathy towards them (Smith et al., 2018). Moreover, dark triad individuals tend to prioritize personal gain over collective outcomes, display low empathy, and view relationships instrumentally (Furnham et al., 2013; Muris et al., 2017). Consequently, they assign lower utility to warmth and likability when evaluating potential co-founders.

Instead of judging co-founder warmth and likability as positive indicators, dark triad founders may construe these attributes as signs of vulnerability (Bouncken et al., 2020; Buckels et al., 2014; Jonason et al., 2013). Such reinterpretation shifts the selection calculus. Rather than valuing warmth and likability for its cooperative benefits, dark triad founders may prefer candidates who display lower warmth and likability, enabling them to maintain control without relational constraint (Brownell et al., 2024; Harms et al., 2024). Because dark triad founders are less interested in social-emotional benefits (Jonason et al., 2015; Paleczek et al., 2018), the utility they assign to warmth and likability in a co-founder is reduced. This does not necessarily mean that dark triad founders will actively avoid warm and likable candidates, but rather that such attributes carry less weight in their evaluations. As a result, they are less likely to penalize co-founder candidates who display low warmth and likability—meaning such candidates do not receive the same attractiveness discount, ceteris paribus, as they would from lower dark triad founders.

Consequently, the interpersonal-selection relationship advanced in our first hypothesis is not uniform, but rather, contingent on the lead founder's dark triad. Specifically, we expect the callous and exploitative tendencies of the dark triad to dampen the otherwise positive effect of warmth and likability on selection. Founders higher in the dark triad judge that they derive little utility from emotionally attuned partners and may even judge such attributes as obstacles to personal advantage. Thus, we propose:

> ***Hypothesis 4****: The positive relationship between a co-founder candidate's interpersonal warmth and likability and a lead founder's willingness to select them as a co-founder will be weaker (i.e., less positive) when the lead founder exhibits higher levels of the dark triad.*

Influence on co-founder candidate's resource contributions. Marriage formation reflects a process of evaluating both social-emotional and economic utilities that could emerge from a potential union (Becker, 1973; Chiappori et al., 2009). Accounting for this, lead founders consider co-founder candidates not only for the social-emotional benefits but also for the tangible resources they bring to the venture (Forbes et al., 2006; Ruef et al., 2003). A complication, however, is that marriage market research highlights that resource control within partnerships shapes bargaining power and decision-making authority (Chiappori, 2020; Lundberg & Pollak, 1993; Woolley, 2003). Analogously, resource-rich co-founders in entrepreneurial teams often wield greater influence over strategic direction (Beckman et al., 2007; Forbes et al., 2006). Resource-rich co-founder candidates therefore present a tension. That is, while such co-founders expand the venture's collective potential, their resource-richness simultaneously translates to a strong bargaining position for themselves.

Research indicates that founders can navigate this tension through the cooperative logic that marriage market theory ascribes to partner search, accepting the accompanying shift in bargaining dynamics when the anticipated benefits justify it (Chiappori, 2020; Pollak, 2019). However, this is unlikely to hold for lead founders high in the dark triad, whose dominance motives and self-serving orientation make resource-based power a perceived threat (Bouncken et al., 2020; Brownell et al., 2024; Harms et al., 2024). Dark triad founders' callousness, entitlement, and exploitation (Jones & Paulhus, 2011; Jonason et al., 2009) foster an instrumental view of relationships, prioritizing control over others rather than joint utility (Jones & Paulhus, 2014; O'Boyle et al., 2012). From a marriage market perspective, this represents a distortion of the cooperative logic. Rather than seeking resource-rich partners to expand venture potential, dark triad founders evaluate resources in terms of appropriating and dominating them.

At first glance, this preoccupation with control creates a tension because it suggests that dark triad founders might simply prefer less resource-endowed, yet more readily controllable co-founder candidates. However, prior research indicates that dark triad founders locate control in distinct and counterintuitive ways. Dark triad individuals exhibit confidence in their manipulative and exploitative capabilities (Brownell et al., 2021; Jonason et al., 2012; Jonason & Webster, 2010), leading them to treat resource-induced power asymmetries as challenges they are equipped to neutralize rather than avoid. Crucially, this reflects a subjective judgment of controllability, as power derived from resources is perceived as informal and therefore contestable. Hence, controllability, for them, is not a fixed property of less-endowed candidates but a condition they believe they can also impose on resource-rich partners. From their perspective, resources and controllability are therefore complementary criteria rather than competing ones. Driven by an aspiration to get personally ahead (Curtis et al., 2023; Furnham et al., 2013; Paleczek et al., 2018) and a belief that they can capture disproportionate returns from well-resourced partnerships (Jonason et al., 2009; Hmieleski & Lerner, 2016), dark triad founders are inclined to judge resource-rich candidates as instruments of personal advancement rather than as cooperative partners. This is consistent with broader evidence that dark triad individuals strategically select partners to advance personal ambitions (Jonason & Schmitt, 2012), pursue dominance and status (Chatterjee & Hambrick, 2007; Harms et al., 2024), and exploit others' capabilities for self-gain (Brownell et al., 2021). With the threat of resource-induced bargaining power discounted by their confidence in manipulation, expected resource contributions become disproportionately salient to dark triad founders, amplifying their willingness to select resource-endowed candidates. Hence, we propose:

> ***Hypothesis 5****: The positive relationship between a co-founder candidate's resource contributions and a lead founder's willingness to select them as a co-founder will be stronger (i.e., more positive) when the lead founder exhibits higher levels of the dark triad.*

Influence on co-founder candidate's equity demand. Marriage is not only about who to partner with but also how to divide joint surplus (Chiappori, 2020). In co-founder relationships, this division is operationalized through the allocation of equity ownership, which determines each partner's share of financial returns and positioning within the venture (Mueller & Hennicke, 2024). The equity split thus mirrors what marriage market theory describes as the negotiation over "who gets what" of jointly produced benefits (Pollak, 2019). Lead founders recognize that ownership directly translates into return allocations as well as decision-making authority (Hong et al., 2021; Mueller & Hennicke, 2024; Wasserman, 2012), with greater equity split reflecting balanced contributions and mutual recognition. However, the decision calculus of individuals high in the dark triad is self-centered rather than mutualistic (Bertl et al., 2017; Jones & Paulhus, 2014; Paulhus & Williams, 2002), and therein, they perceive relationships as hierarchical and zero-sum rather than cooperative and interdependent (Harms et al., 2024). Resultantly, dark triad founders are likely to be particularly averse to co-founders who demand substantial equity, as such demands imply a reduction in control and status within the venture. Rather than treating equity demands as part of a cooperative bargaining process, these founders interpret them as challenges to their authority and self-enhancement motives (Chatterjee & Hambrick, 2007; Harms et al., 2024).

In contrast to resource-based power, equity constitutes formal and institutionalized control that cannot be easily reinterpreted or overridden. More specifically, the heightened aversion to equity demands among dark triad founders results from two judgment considerations. First, equity demands have economic implications by reducing the lead founder's expected financial returns. Given their strong orientation toward personal gain maximization utility (Furnham et al., 2013; Kajonius et al., 2015), dark triad founders are especially sensitive to such dilution of expected economic utility. Second, equity demands indicate the co-founder's expected standing within the venture. Because dark triad founders are driven by status, dominance, and entitlement (Chatterjee & Hambrick, 2007; Jones & Paulhus,

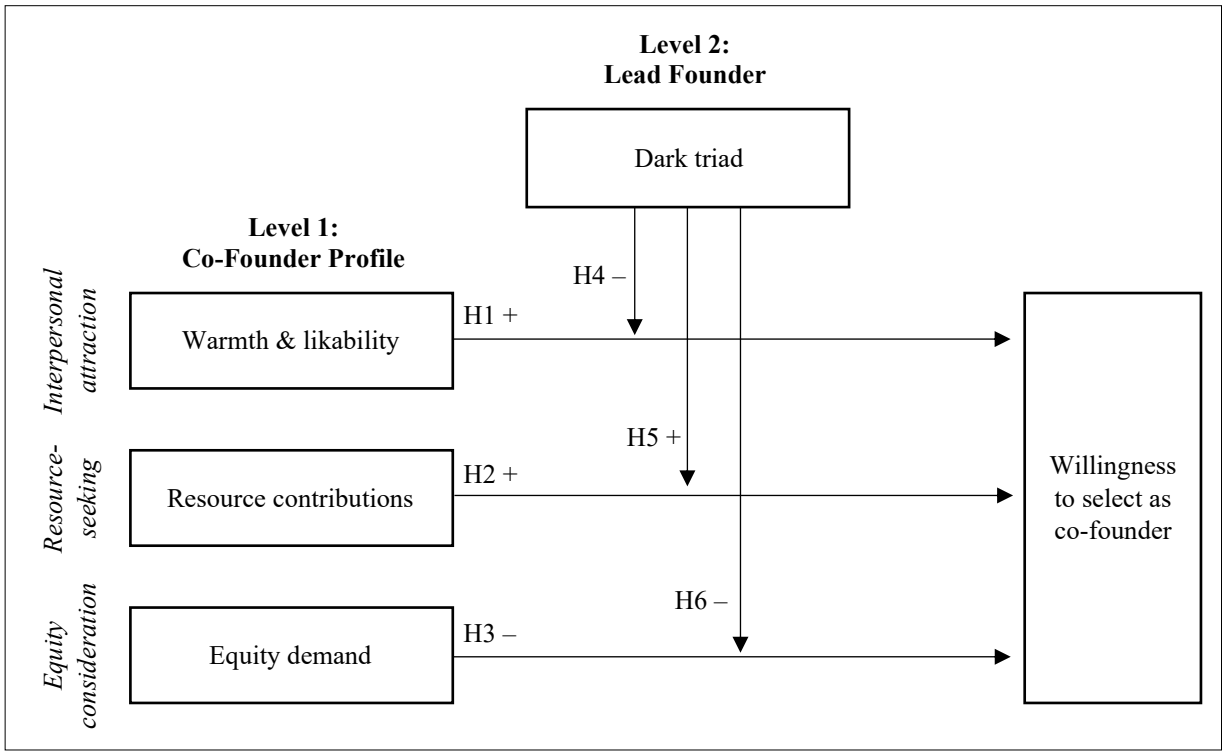
2014), they interpret higher demands as challenges to their primacy and positional authority. Taken together, these two considerations amplify adverse reactions to equity demands.

These arguments suggest that while high equity demands generally reduce candidate attractiveness, this negative effect is amplified when the lead founder exhibits a higher dark triad. Put simply, lead founders higher in the dark triad judge equity demands more defensively, striving to ensure their position and dominance (Furnham et al., 2013; Jones & Paulhus, 2014). Conversely, lower equity demands may be interpreted as affirmations of the lead founder's primacy and thus judged more favorably. This mirrors marriage market dynamics in which one partner accepts a subordinate share of benefits to secure access to the relationship (Lundberg & Pollak, 1993; Pollak, 2019). Consistent with this reasoning, we propose the sixth and final hypothesis:

> ***Hypothesis 6****: The negative relationship between a co-founder candidate's equity demand and a lead founder's willingness to select them as a co-founder will be stronger (i.e., more negative) when the lead founder exhibits higher levels of the dark triad.*

We present our conceptual model with the hypothesized relationships in Figure 3.1.

Figure 3.1 *Conceptual Model*



Note. The model reflects a multi-level design with the three decision attributes (i.e., warmth and likability, resource contributions, and equity demand) serving as level-1 variables (within-differences), whereas the dark triad serves as a level-2 variable (between-differences).

Method

Research Design

To test our model of co-founder selection decisions, we employed a metric conjoint experiment as seen in various entrepreneurial contexts, such as investment decisions (Ademi et al., 2023), founder exit choices (Singaram et al., 2024), potential employees assessment of new venture attractiveness (Lewis & Cardon, 2020), and entrepreneurs' opportunity evaluation judgments (Wood et al., 2014). Experiments are "often considered to be the gold standard […] to create reliable and action-oriented knowledge" (Williams et al., 2019, p. 217). Within this domain, conjoint experiments are an excellent method for examining decision-making (Grégoire et al., 2019; Lohrke et al., 2010), enabling researchers to capture decision-making policies while they are actively being utilized and overcoming limitations of post-hoc methods such as surveys and interviews (Shepherd & Zacharakis, 2018). Following established practices (e.g., Warnick et

al., 2018), our conjoint design comprises three parts: the co-founder selection scenario including a task description, the co-founder profiles, and a post-experiment survey.

Experimental Scenario

Participants were instructed to imagine themselves as a lead founder with a new and promising entrepreneurial idea for which they identified the immediate need for a co-founder to initiate and grow the venture. To ensure that general co-founder selection criteria are not neglected, and to reflect marriage market theory's emphasis on mutual interest, participants were instructed to treat all candidates as available, genuinely interested in becoming a co-founder, and possessing profiles that make them worthy of consideration for selection. Accordingly, our conjoint task conditions on a non-zero feasible set of candidates[5]. This setup ensures that all candidates meet the participation thresholds outlined in marriage market theory, thereby enabling a one-sided choice design in which the lead founder, as the idea holder, functions as the primary actor making the selection decision. The scenario established further clarifies that each co-founder candidate has already completed pre-selection interviews, thereby ensuring that these baseline criteria have been met. We outline the conjoint decision task scenario in Table 3.1a.

To ensure ecological validity (see Williams et al., 2019), we conducted nine semi-structured interviews with active entrepreneurs to assess the relevance of selection logics and confirm that our experimental scenario aligned with real-world experience. Furthermore, we asked entrepreneurs to jointly develop the boundary conditions of our scenario, sharing their expertise reading the scenario accurately reflecting early-stage entrepreneurs seeking co-founders. The participating entrepreneurs helped refine the scenario with minor adjustments in

[5] We note that, in practice, not all potential co-founder candidates will be interested or available to join a given venture. Our design therefore focuses on the subset of candidates who meet baseline participation thresholds (i.e., those who are both available and express genuine interest) consistent with the feasible choice set emphasized in marriage market theory. This approach also mirrors entrepreneurial practice, where lead founders actively solicit applications (e.g., via co-founder platforms or networks), resulting in a pool of interested candidates from which selections are made.

wording, affirmed face validity, and heterogeneity in attribute importance, supporting the robustness and contextual relevance of our instrument.

Operationalization of Decision Attributes and Pre-Study Insights

Decision attributes. Following our theorizing, we focus on three decision attributes in the development of the conjoint instrument: co-founder candidates' *warmth and likability*, *resource contributions*, and *equity demand*. To operationalize these attributes, we combine insights from extant literature, our face validity interviews, and a survey-based pre-study we conducted for inferring an appropriate measure of equity demand specifically. The operationalization of all co-founder attributes is summarized in Table 3.1b. The first two attributes capture distinct selection strategies: interpersonal attraction, based on candidates' warmth and likability, and resource seeking, based on candidates' resource contributions to the venture. Consistent with marriage market theory, these attributes reflect the social-emotional utility and economic utility logics underlying partner selection. The third criterion, equity demand, captures how candidates request surplus allocation within the partnership. Importantly, operationalizing equity demand requires careful calibration as levels of equity share can be interpreted in different ways.

To establish empirically grounded levels for this attribute, we conducted a pre-study before deploying the main conjoint experiment. To ensure the quality and authenticity of pre-study responses, we implemented both platform-level and researcher-specified safeguards. At the platform level (Prolific), we restricted participation to respondents with a minimum 95% approval rate, U.S. residency, English fluency, and current entrepreneurial engagement consistent with recent entrepreneurship research (e.g., Allen et al., 2025; Gray et al., 2024b; Michaelis et al., 2026; Pollack et al., 2026). Moreover, we included three pre-screening questions to confirm entrepreneurial status and applied attention checks, a manipulation check requiring open-text recall of key task information, and logical consistency checks. Respondents failing to meet these criteria were excluded. In total, 40 respondents failed manipulation or

attention checks and 3 provided implausible responses, resulting in a final pre-study sample of 177 entrepreneurs. Full details of these procedures are provided in Appendix 3.A. In this survey, respondents indicated what they considered "low" and "high" equity demands when evaluating potential co-founder candidates. This procedure yielded median values of 15% (low equity demand; M = 16.85%) and 50% (high equity demand; M = 47.69%), providing a robust empirical basis for operationalizing the attribute. Scatter plots for all responses are provided in Appendix 3.B.

Building on these benchmarks and recent evidence on equity splits in early-stage founding teams (Walker & Dowd, 2025), we set the equity levels in the main experiment at 15% (low) and 50% (high). Besides reflecting the empirical data from the pre-study, this choice offers three advantages for our study context. First, it avoids exceeding the 50% threshold, which would conceptually undermine the lead founder position that is central in our investigation. Second, the 50% threshold increases realism as lead founders at this early stage rarely cede more than half of their venture's ownership, thereby becoming subordinate to a joining co-founder. Third, selecting 15% and 50% introduces meaningful theoretical tension around bargaining, control, and power allocation, as outlined in our theoretical arguments. A 50% split creates a state of equilibrium between partners, whereas lower allocations (i.e., below 50%) maintain the lead founder's dominant position—making such values less suitable for our theorizing on bargaining, control, and power allocation. This approach is consistent with extant descriptive evidence (i.e., Walker & Dowd, 2025) showing that co-founder relationships tend to cluster around such 50–50 splits at the upper end of the range.

Conjoint design and profile structure. As our conjoint profiles consist of three decision attributes at two levels each, we utilized a full-factorial design. This resulted in eight profiles (23) in the main test and an additional eight profiles in the retest. The full test-retest replication ensures reliable responses, and thus reflects best-practice in conjoint design (Schueler et al., 2024; Shepherd & Zacharakis, 2018). For clarity and understanding, each profile included a

link to detailed explanations of the respective attribute levels. At the outset of the decision tasks, we presented two practice profiles to make participants familiar with the setting (e.g., Warnick et al., 2018). In sum, each participant evaluated a total of 18 co-founder profiles: two practice profiles, eight co-founder profiles in the main test, and eight replicated profiles in the retest. To alleviate the possibility of order biases (Chrzan, 1994), we created three versions of profile presentation that were randomly distributed.

Table 3.1 *Conjoint Decision Task*

3.1a Control scenario

Please assume that you are in the following situation:

You have a promising entrepreneurial idea, for which you want to initiate the venture creation process. You are currently the sole owner of this new venture. In other words, you hold 100% of its equity (shares in the venture). However, to start and grow the venture, you identified the immediate need for a co-founder and decided to actively look for one. Hence, you are now in the situation to evaluate potential candidates. Please assume that all co-founder candidates you will see now:

- are **available**, **motivated,** and **seriously interested** in becoming your co-founder,
- have successfully **completed pre-selection interviews** with you personally,
- are **generally aligned** with your venture vision and values,
- are **willing to relocate** if you expect them to do so, and
- **fulfill expectations** regarding **demographics** (e.g., age, gender) and **family or personal circumstances** you might have.

3.1b Operationalization of co-founder profile attributes

Attribute	Low level	High level
Warmth and likability	The candidate shows *low* warmth and likability.	The candidate shows *high* warmth and likability.
Resource contributions	The candidate brings to the venture a *limited* level of resources in terms of contributory knowledge, skills and network contacts.	The candidate brings to the venture an *extensive* level of resources in terms of contributory knowledge, skills and network contacts.
Equity demand	To become your co-founder, the candidate demands a *15%* equity share.	To become your co-founder, the candidate demands a *50%* equity share.

Note. Respondents were presented with this table prior to evaluating the co-founder profiles. Throughout the decision tasks, respondents were provided with a link to the detailed description of each attribute as presented in this table.

Sample

Our analytical sample consists of 206 entrepreneurs in the United States who completed 3,296 co-founder selection decisions. Using entrepreneurs as participants ensures that "the experimental task should align with the nature of the sample" (Williams et al., 2019, p. 220), as they possess the entrepreneurial experience necessary to place themselves in the co-founder selection scenario. To recruit participants, we worked with Dynata—a professional business-to-business sample provider, which has been used in prior studies for participant identification and recruitment (e.g., Enke et al., 2022; Estep et al., 2023). Dynata targeted its professional sample of "business owners and founders." Considering the importance of precise respondent screening (Bentley, 2021), we implemented five additional pre-screening questions beyond Dynata's professional protocol to ensure a suitable sample of entrepreneurs that have experienced the nascent entrepreneurial phase where co-founder selection is most likely to occur. To ensure data quality, we applied multiple indicators of insufficient effort responding (Bowling et al., 2021; Meade & Craig, 2012). Participants were excluded if they failed more than one attention or plausibility check, which included bogus items (e.g., "I swim across the ocean to get to work every day"), manipulation checks (e.g., recall of equity levels), and consistency checks (e.g., implausible age-experience ratios). To cross-validate entrepreneurial status, we included post-experimental items capturing respondents' years of entrepreneurial experience, number of ventures founded, and roles held. Respondents whose cross-validation responses were inconsistent were excluded. Beyond platform-level safeguards, we applied quality checks consistent with recommended practices for detecting careless or inconsistent responses (Bowling et al., 2021; Meade & Craig, 2012; Pinzón et al., 2024). The implementation of these data quality procedures moved us from an initial sample of 267 respondents who completed both the conjoint experiment and the post-experimental survey, to a final sample of 206 through seven exclusion steps (fully detailed in Appendix 3.C).

Dependent Variable

The dependent variable was the *willingness to select a co-founder candidate*. Following established conjoint practices (e.g., Ademi et al., 2023; Wood et al., 2014), we used a single-item measure presented after each profile: "What is your willingness to select the candidate as co-founder?". We captured responses using a 9-point Likert scale ranging from 1 – *low willingness*; 9 – *high willingness*." Single-item dependent variables are standard and appropriate in conjoint designs (e.g., McKelvie et al., 2011; Theunissen et al., 2025), as the repeated-measures structure of the task provides statistical power through within-person variation rather than multi-item scale aggregation.

Independent Variables

The three conjoint attributes *warmth and likability*, *resource contributions*, and *equity demand* were operationalized at two levels each (i.e., "low" vs. "high"). All three decision attributes are modeled as independent variables and were mean-centered (–0.5 / +0.5) in line with best practices for conjoint analysis involving interaction terms (Aguinis et al., 2013). Full operationalizations are presented in Table 3.1b.

Moderator Variable

We assessed the *dark triad* using the Dirty Dozen scale (Jonason & Webster, 2010) which demonstrated strong internal consistency in our sample ($\alpha = 0.82$). The dark triad is treated as a continuous construct throughout; references to "lower" or "higher" dark triad reflect relative positions (– / + 1 S.D.) around the sample mean within sub-clinical rather than pathological levels. In Appendix 3.D, we provide detailed insights into the dark triad measure, including results from confirmatory factor analysis. As we examine the dark triad "core," we follow suggestions to calculate a composite dark triad score (Persson et al., 2019), but also test separate effects of the three dark triad subdimensions in a post-hoc analysis.

Control Variables

To gain a deeper understanding of the variations in entrepreneurs' decision-making, we incorporated a post-experimental survey to gather comprehensive insights about respondents. We collected demographic data (i.e., *age*, *gender*, and *education*) and data on professional experiences and current attitudes (i.e., *work experience* [in years] and extent of *active co-founder search*). Further, we collected self-reported information on *entrepreneurial passion* (Cardon et al., 2013), due to its relevance in team formation dynamics (Fu et al., 2022) and in combination with the dark triad (Schmidt et al., 2025). To complement the dark triad and reduce the risk of omitted variable bias among personality-adjacent constructs, we also collected data on participants' *overconfidence* (Forbes, 2005), *dispositional optimism* (Scheier et al., 1994), *entrepreneurial self-efficacy* (ESE) (Chen et al., 1998), and *hubristic pride* (Tracy & Robins, 2007). To mitigate concerns of self-reported data, especially related to the rather sensitive items pertaining to the dark triad, we include *social desirability* (Larson, 2019) as a control variable, following recent best practices in entrepreneurship research (Brownell et al., 2024). The constructs were measured using validated scales from the cited sources.

Analysis and Results

Our data structure is multilevel, as each entrepreneur evaluated 16 co-founder profiles (8 main profiles and 8 replicated profiles for the test-retest), resulting in repeated decisions (level 1) nested within individuals (level 2). In total, this yields 3,296 decisions (1,648 main test and 1,648 retest) nested within 206 respondents. Accordingly, we tested our hypotheses using hierarchical linear modeling (HLM) with random intercepts and random slopes at the respondent level to account for both within- and between-individual variation. All level-1 variables were group-mean centered and level-2 variables grand-mean centered. The reported coefficients are unstandardized and standard errors are cluster-robust at the individual level. We followed the latest workflow by Schueler et al. (2024) to comprehensively evaluate the test-retest reliability and confidence in our conjoint data. This procedure reveals robust test-retest

reliability with ICC(3, k) values ranging from 0.76 to 0.86 and non-significant slope differences (see Appendix 3.E for detailed test-retest analysis and results).

Descriptive Statistics

We present descriptive statistics and bivariate correlations in Table 3.2. While our results show significant bivariate correlations, there are no anomalous correlations. To check for multicollinearity, we also report the variance inflation factors (VIFs).

Main Effects

Table 3.3 presents the results of the HLM analysis for all main and interaction effects. The findings highlight the central role of social-emotional utility in co-founder selection, as reflected in the positive and significant coefficient for interpersonal attraction, i.e., warmth and likability (H1, b = 2.514, $p < 0.01$). Likewise, economic utility emerges as a key determinant as the coefficient for resource contribution (H2, b = 2.127, $p < 0.01$) is positive and significant. We also find evidence for the relevance of equity considerations, with candidates' equity demand (H3, b = –0.911, $p < 0.01$) exerting a negative effect on lead founders' willingness to select a candidate. Taken together, these results provide support for H1 through H3, underscoring that social-emotional, economic as well as equity considerations shape co-founder selection decisions. Furthermore, although not hypothesized, the main effects show that—all else equal—the dark triad (b = 0.261, $p < 0.05$) positively influences entrepreneurs' willingness to select a candidate.

Table 3.2 *Descriptive Statistics, Bivariate Correlations, and Measures*

Variables	Mean	S.D.	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	VIF
(1) Average WTS	4.86	0.90	1.00													–
(2) Age	47.68	13.11	–0.14*	1.00												3.59
(3) Gender	1.48	0.50	0.01	0.07	1.00											1.08
(4) Education	2.81	0.78	0.04	0.25***	–0.04	1.00										1.14
(5) Work experience	26.25	13.65	–0.20***	0.82***	0.05	0.15**	1.00									3.42
(6) Active search	2.70	1.68	0.28***	–0.32***	–0.11	0.09	–0.33***	1.00								1.43
(7) Ent. Passion	35.53	9.83	0.17**	–0.10	0.01	0.04	–0.09	0.34***	1.00							1.92
(8) Social desirability	2.86	0.42	0.05	0.02	0.02	0.06	–0.11	0.17**	0.20***	1.00						1.18
(9) Overconfidence	15.91	20.92	–0.04	–0.05	0.04	–0.02	–0.03	–0.04	0.22***	0.14*	1.00					1.10
(10) Disp. optimism	3.65	0.77	0.05	0.11	0.03	0.04	0.09	0.06	0.43***	0.12*	0.05	1.00				1.34
(11) ESE	6.49	0.70	–0.06	0.04	0.01	–0.12*	0.12*	–0.06	0.49***	0.09	0.14**	0.38***	1.00			1.59
(12) Hubristic pride	1.26	0.46	0.17**	–0.22***	–0.21***	0.03	–0.22***	0.20***	0.02	0.12	–0.02	0.02	–0.13*	1.00		1.48
(13) Dark triad	2.06	0.58	0.18**	–0.12*	–0.20***	0.01	–0.13*	0.09	–0.13*	0.16**	0.04	–0.13*	–0.14*	0.51***	1.00	1.47

Note. Correlation matrix reflects level 2 variables of 206 U.S. entrepreneurs. Means, S.D.s and bivariate correlations were computed with unstandardized variables on level 2 for enhanced interpretation. S.D. = Standard deviation. VIF = Variance inflation factor. Average WTS = an individuals' mean "willingness to select" across all co-founder profiles. Age in years. Gender: 1 = male, 1.5 = diverse, 2 = female. Education: 1 = no degree, 2 = high school degree or equivalent, 3 = undergraduate graduate degree, 4= graduate degree, and 5 = doctoral degree. Work experience in years. Respondents indicated the extent to which they were actively searching for a co-founder on a 7-point Likert scale, ranging from 1 (not at all) to 7 (to a great extent). In line with Cardon et al. (2013), we treated entrepreneurial passion as multiplicative interaction between identity centrality and intense positive feelings and thus report them on a scale from 1 to 49. Social desirability is reported on a 1-5 scale. Overconfidence is reported as proposed by Forbes, 2005 on a –50-100 scale. Entrepreneurial self-efficacy (ESE) is reported on a 1-7 scale. Hubristic pride as well as the dark triad are measured on a 1-5 scale. **p<0.1; **p < 0.05; ***p < 0.01.*

Table 3.3 *HLM Regression Results*

DV: Willingness to select	Coefficient	SE	*p*-Value	Hypothesis
Controls (level 2)				
Age	0.008	0.011	0.459	
Gender	0.133	0.126	0.289	
Education	0.015	0.086	0.859	
Work experience	–0.012	0.010	0.218	
Active co-founder search	0.100**	0.046	0.030	
Entrepreneurial passion	0.015*	0.008	0.067	
Social desirability	–0.125	0.140	0.372	
Overconfidence	–0.002	0.003	0.340	
Dispositional optimism	0.038	0.100	0.704	
Entrepreneurial self-efficacy	–0.107	0.080	0.182	
Hubristic pride	0.070	0.130	0.590	
Main effects (level 1)				
Interpersonal attraction				
Warmth and likability	2.514***	0.101	0.000	H1
Resource seeking				
Resource contributions	2.127***	0.104	0.000	H2
Equity consideration				
Equity demand	–0.911***	0.118	0.000	H3
Moderator (level 2)				
Dark triad	0.261**	0.119	0.028	
Cross-level interaction effects				
Dark triad x interpersonal attraction				
Dark triad x warmth and likability	–0.462***	0.165	0.005	H4
Dark triad x resource seeking				
Dark triad x resource contributions	0.097	0.201	0.628	H5
Dark triad x equity consideration				
Dark triad x equity demand	–0.583***	0.184	0.002	H6
Constant	4.863***	0.058	0.000	
ICC	0.06			
Marginal R^2	0.46			
Conditional R^2	0.78			
Observations (no. of participants)	3,296 (206)			

Note. Model based on the pooled sample with 3,296 decisions (level 1, group-mean centered) from 206 U.S. entrepreneurs (level 2, grand-mean centered). Table reports the full model; stepwise model specifications are presented in Appendix 3.H. Unstandardized coefficients are reported. Standard errors are cluster robust at the individual level. Random intercept, random slope model. ICC = intraclass correlation coefficient from the null model. Marginal R^2 reflects variance explained by fixed effects only; conditional R^2 additionally accounts for random effects. Following Nakagawa et al. (2017), these R^2 measures should be interpreted as approximations and are not directly analogous to OLS R^2. *$p<0.1$; **$p < 0.05$; ***$p < 0.01$.

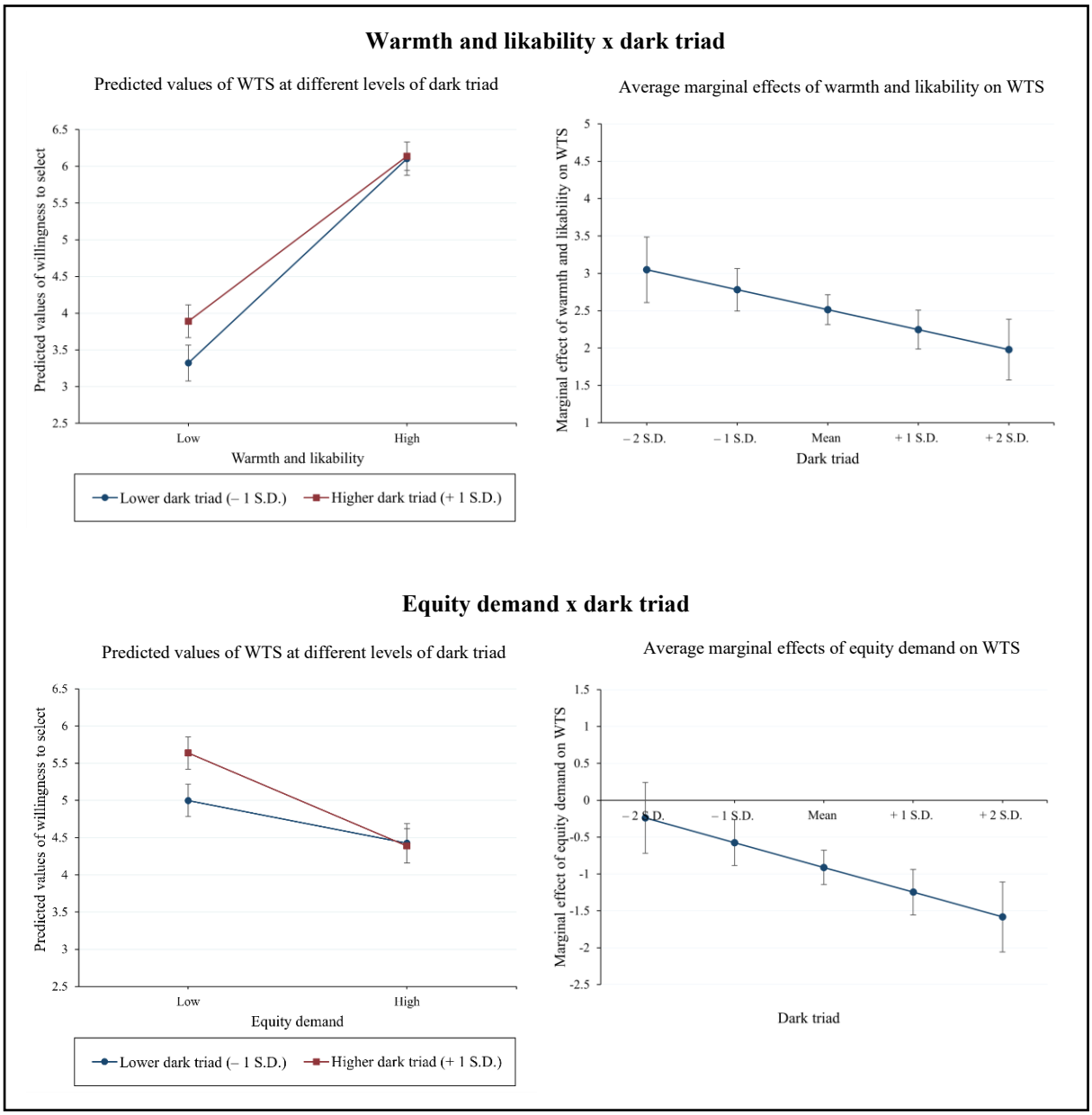
Cross-Level Interactions

To further explore how entrepreneurs' dark triad shapes their decision-making, we examined the hypothesized cross-level interaction effects. Consistent with our predictions, the results support the negative moderating effect of the dark triad on the relationship between interpersonal attraction—that is, warmth and likability—and lead founders' willingness to select a candidate (H4, b = –0.462, $p < 0.01$). In contrast, the hypothesized positive moderation of the dark triad on the relationship between resource contribution and willingness to select (H5, b = 0.097, *n.s.*) was not supported. Finally, the results reveal a negative moderation of the dark triad on the relationship between equity demand and willingness to select (H6, b = –0.583, $p < 0.01$). Taken together, these results provide support for H4 and H6, but not for H5, indicating that entrepreneurs higher in the dark triad differentially evaluate candidates primarily based on their warmth and likability, as well as their equity demands.

Effect Sizes: Predicted Values and Average Marginal Effects

To enhance interpretation, we conducted two supplementary analyses. First, we present the predicted values of lead founders' willingness to select across varying levels of co-founder attributes ("low" vs. "high") and corresponding dark triad levels of lead founders (see Appendix 3.F). As visualized in Figure 3.2, when interpersonal warmth and likability are high in comparison to low, lead founders generally show a stronger willingness to select a candidate, regardless of their dark triad. However, higher levels of the dark triad are associated with more positive evaluations of candidates low in warmth and likability (increasing from 3.321 at –1 S.D. to 3.890 at +1 S.D.; +17.1%), thereby narrowing the preference gap between co-founder candidates with low vs. high warmth and likability. Across dark triad levels, the predicted willingness to select remains relatively stable for candidates who are high in warmth and likability but rises noticeably for candidates' low in these interpersonal characteristics. This pattern indicates that founders higher in the dark triad are less responsive to social-emotional appeal and show greater openness toward partners who are interpersonally scarce and distant.

Figure 3.2 *Visualizations of Predicted Values and Corresponding AMEs*



Note. WTS = willingness to select. The lower (– 1 S.D.), and higher (+ 1 S.D.) dark triad levels correspond to the group-mean-centered values of the dark triad in our sample. Predicted values and AMEs are plotted with 95% confidence intervals.

A similar pattern emerges for equity demand. Lead founders generally prefer candidates with lower equity demands, reflecting an aversion to ownership dilution. Yet, as dark triad levels increase, this preference intensifies, widening the gap between candidates with low and high equity demands. Although willingness to select shows little variation for candidates demanding high equity, founders with higher dark triad scores display a significant increase in

preference for candidates requesting smaller equity stakes (rising from 4.999 at –1 S.D. to 5.637 at +1 S.D.; +12.8%). This finding indicates that lead founders with higher dark triad are attuned to majority ownership, emphasizing control and self-interest in co-founder evaluations.

Second, we follow Busenbark et al. (2022) by reporting average marginal effects (AMEs)—an approach that has been implemented in recent entrepreneurship studies (e.g., Ademi et al., 2023; Colombo et al., 2024; Kleinert, 2024). AMEs are particularly suitable as they outline the main effects in presence of different values of the moderating variable, thereby offering an intuitive approach towards the understanding of moderation effects. As such, the AME approach "affords the most empirical precision" in this respect (Busenbark et al., 2022, p. 166). Specifically, we outline the AMEs of the decision attributes along different levels of lead founders' dark triad in Appendix 3.G, and show the visualizations of predicted values and AMEs for significant model results in Figure 3.2.

The analysis of AMEs further clarifies how the dark triad shapes entrepreneurs' selection patterns. As shown in Figure 3.2, founders with higher dark triad scores exhibit a weaker differentiation regarding interpersonal warmth and likability. Specifically, the marginal effect decreases from 2.781 at –1 S.D. to 2.247 at +1 S.D., representing a 19.2% reduction in sensitivity to the attribute of warmth and likability in a co-founder candidate. This pattern suggests that as the dark triad intensifies, founders become less appreciative of interpersonal appeal and social-emotional utility in co-founder selection.

For equity demand, the marginal effect becomes more negative as dark triad levels rise, shifting from – 0.575 at –1 S.D. to –1.247 at +1 S.D.—an increase of approximately 117% in effect magnitude. This finding indicates that founders higher in the dark trait display a heightened aversion to equity dilution, giving substantially greater weight to ownership considerations when evaluating potential co-founders.

Transparency and Robustness Checks

For transparency, we report the stepwise HLM regression results, progressively introducing controls, main effects, the moderator and cross-level interactions, in Appendix 3.H. Further, we conduct three complementary robustness analyses to assess the stability of our findings across alternative model specifications (see Appendix 3.I). First, we estimated an OLS specification with respondent fixed effects and clustered standard errors at the respondent level to probe potential omitted-variable bias at the level 2 of analysis—an approach that has been used in recent conjoint studies employing multi-level designs (e.g., Ademi et al., 2023). In this model, all time-invariant person-level controls are absorbed by the individual dummies and drop due to collinearity. The direct effects of the decision attributes and the cross-level interactions with the dark triad remain robust, indicating that our main results are not driven by unobserved, person-specific heterogeneity. Second, we re-estimated the model using only the main sample (Profiles 1–8; 1,648 decisions), and third, conducted the same analysis using only the retest sample (Profiles 9–16; 1,648 decisions). Across all three models, the direction, magnitude, and statistical significance of the main and interaction effects remain consistent.

Post-Hoc Analysis: Dark Triad Subdimensions

To complement our theorizing on the dark triad core, we performed post-hoc analyses examining Machiavellianism, narcissism, and psychopathy separately (see Appendix 3.J). It is important to note that this analytic choice forces each HLM coefficient to reflect only the variance unique to that subdimension, while the theoretically meaningful common variance (on which we theorize) is dispersed across the three measures and therefore omitted from the model. However, analyzing the subdimensions is informative as each may reveal distinct sensitivities that influence co-founder selection beyond what is explained by the shared dark triad core.

Importantly, our results show that none of the subdimensions exhibited significant moderation effects in a direction different to the dark triad results. Specifically, we find that respective subdimensions produce some moderation effects like the dark triad core. The results

largely reaffirm the negative moderating effect of dark triad tendencies on the link between interpersonal attraction (H4) and willingness to select (Machiavellianism: b = –0.111, *n.s.*; Narcissism: b = –0.287, $p < 0.05$; Psychopathy: b = –0.440, $p < 0.05$). For resource contributions (H5), consistent with the findings for the dark triad core, we do not observe any significant interaction effects. For equity demand (H6), all subdimensions follow the predicted negative interaction pattern (Machiavellianism: b = –0.404, $p < 0.01$; Narcissism: b = –0.328, $p < 0.1$; Psychopathy: b = –0.207, *n.s.*), while the psychopathy and equity demand interaction does not reach statistical significance. Lastly, and in extension of our finding on the dark triad's general inclination toward co-founder selection (i.e., direct effect on the willingness to select), we find that lead founder narcissism displayed a significant positive direct effect (b = 0.209, $p < 0.05$), while the remaining dimensions showed no direct effects.

Discussion

Co-founder selection has long been recognized as a consequential early-stage entrepreneurial decision, yet we have limited insight into how lead founders make these selection judgments. While prior scholarship has emphasized that founders draw on interpersonal compatibility and resource complementarities when choosing partners (e.g., Forbes et al., 2006; Lazar et al., 2020, 2022), our findings indicate that these antecedents are only part of the story as founders' underlying dispositions meaningfully shape how those qualities are interpreted. Put simply, we provide evidence that co-founder selection is not merely a function of who is available or what they bring to the table, but of how founders judge them. In this vein, marriage market theory provides a useful lens for interpreting founder judgment because it foregrounds cooperative surplus creation and utility projection that drive how founders imagine the future of a venture. Our findings support this logic, while revealing that this cooperative logic embedded in prior co-founder selection studies (e.g., Shah et al., 2019) is not uniformly applied. Instead, lead founders' dispositional tendency of the dark triad systematically shapes how they interpret the same co-founder candidate characteristics, with founders high in the dark triad exhibiting a

pronounced preference for co-founder candidates who enhance their personal utility—specifically, individuals requesting lower equity stakes and those exhibiting low warmth and likability. Importantly, our results show that founders higher in the dark triad are not less likely to select co-founders per se but rather exhibit a greater overall inclination to do so while selectively favoring candidates that enhance their personal utility. This pattern may help explain the absence of support for H5: although resource-rich candidates enhance venture potential, they also introduce influence that is difficult to control, prompting founders higher in the dark triad to balance personal gain against threats to their power.

In turn, we explore the implications of these findings across the scholarly conversations that serve as bedrock for our theory and empirics.

Implications for Co-Founder Selection, Dark Triad, and Marriage Market Theory

Our study has important implications for extant theory and literature. First, we introduce marriage market theory to the literature as a unifying conceptual logic for understanding co-founder selection (Becker, 1973; Chiappori, 2020). Much like marriage, co-founder relationships formalize long-term partnerships characterized by joint value creation and negotiated allocations of rights and returns. Building on this foundation, we integrate marriage market logic with individual judgment reasoning (Wood et al., 2014), moving beyond prior emphasis on individual selection criteria (i.e., Fu et al., 2022; Lazar et al., 2022) and focusing on the judgments through which founders incorporate these considerations when making co-founder selection decisions. Particularly, incorporating equity demands into co-founder selection has been overdue, given growing evidence that ownership allocation shapes bargaining dynamics and venture trajectory (Hong et al., 2021; Mueller et al., 2026; Mueller & Hennicke, 2024; Weissenböck et al., 2024). By bringing equity demands into focus via an individuated judgment logic of marriage market theory, we provide a co-founder selection framework that advances a more comprehensive understanding of the considerations shaping the co-founder selection phenomenon.

A second implication of our study is the extension of scholarly understanding about how founder predisposition can shape co-founder selection decisions. While prior research has acknowledged that founders vary in their preferences (Fu et al., 2022; Gray et al., 2024b), there has been limited insight into how these differences influence the comprehensive evaluation of potential co-founders. We make this consideration explicit, finding that dark triad tendencies systematically shape the judgments underpinning co-founder selection. Hence, our evidence suggests that the imprint of dark triad tendencies emerges earlier than previously examined (Brownell et al., 2021, 2024; Hmieleski & Lerner, 2016; Lang et al., 2026; O'Boyle et al., 2012), at the point where lead founders screen and select potential partners. Specifically, founders higher in the dark triad discount interpersonal attraction and respond to equity demands in ways that substantially prioritize personal gain over collective benefit.

Overall, these tendencies may illuminate why some co-founder relationships are vulnerable to conflict: when a lead founder approaches the relationship with a one-sided focus on personal utility rather than joint gains, the cooperative foundation of the partnership is compromised from the outset. This can potentially help understand the emergence of interpersonal difficulties and power conflicts in co-founder relationships, which have been found to be very prevalent—ultimately resulting in more than 40% of founders buying out their co-founders (e.g., Howell et al., 2024). Investigating how these judgments of dark triad founders may imprint such tensions onto founding teams is particularly important, given the documented negative effects of the dark triad on venture performance (e.g., Brownell et al., 2021). However, our study design does not allow testing the effect of co-founder selection decisions to downstream relationship and performance outcomes, which remains an important avenue for future research.

Shedding further light on this boundary, our post-hoc analysis revealed two nuanced patterns that refine, and in some cases complicate, our theorized relationships. First, although we anticipated that founders higher in the dark triad would systematically devalue candidates

high in warmth and likability, the post-hoc analyses showed no such uniform discounting. Instead, founders higher in the dark triad evaluated high warmth and likability candidates similarly to founders lower in the dark triad. This suggests that interpersonal warmth and likability is not inherently threatening and points to homophily as a plausible complementary explanation (Fu et al., 2022; Kovács & Sels, 2026; Ruef et al., 2003). Concretely, dark triad founders are prone to exhibit lower interpersonal warmth themselves (Harms et al., 2024; Jones & Paulhus, 2014) and thus may be less deterred by similarly low warmth candidates. While our design cannot disentangle similarity-based attraction from the marriage market utility logic we theorize, these may operate in tandem, and we encourage future research that explores this possibility. Second, we expected founders higher in the dark triad to react more negatively to candidates demanding high equity. However, our results reveal a different pattern. Rather than amplifying aversion at high levels of equity demand, founders higher in the dark triad exhibit a pronounced preference for candidates requesting lower equity stakes, while converging with founders regardless of dark triad predisposition in their negative evaluations of high equity demands. The latter likely reflects the structural magnitude of surrendering substantial ownership as an unappealing prospect for any founder, whereas for higher dark triad founders' low equity requests present an opportunity to control and exploit the relationship at lower costs. In conclusion, the two revealed patterns reinforce our broader argument: when founders dispositional tendencies shift their evaluative logic from cooperative surplus to personal utility maximization, it changes lead founder judgments in systematic and consequential ways.

A third implication of our study is that we see our theory and findings contributing back to marriage market theory by introducing judgment as the mechanism through which cooperative surplus and utility assessments are enacted. Marriage market theory traditionally assumes that individuals select partners to maximize joint utility (Becker, 1973, 1974; Chiappori, 2020), with less attention to how such evaluations are cognitively constructed. By conceptualizing co-founder selection as an act of individuated judgment, we show how

anticipated surplus is actively constructed through evaluative processes reflecting social-emotional, economic, and distributive considerations. More specifically, our theorization and findings identify the dark triad as a boundary condition under which the cooperative logic underlying marriage market theory is less likely to hold. In this vein, our study not only formally brings marriage market theory to entrepreneurship but also extends it by identifying a potential boundary condition of its core assumptions resulting from heterogeneity in evaluative logics. By identifying the dark triad as a predisposition under which the assumptions of marriage market theory may not hold, we extend the core logic of marriage market theory in ways that scholars researching in this tradition may find valuable.

Practical Implications

Our findings provide useful insights for entrepreneurs and co-founder candidates. First, our results highlight that lead founders incorporate interpersonal, resource and equity considerations when assessing co-founder candidates. Treating this process as a marriage-market decision, where the goal is to identify the partner who maximizes joint utility, can help entrepreneurs evaluate candidates more holistically by jointly considering social-emotional value, economic utility, and long-term value potential through equity considerations. Importantly, while interpersonal warmth and likability as well as resource contributions tend to be consistently valued across founders, the effects of equity demands are more contingent and sensitive to founder disposition, making them a more nuanced factor in co-founder evaluations. Understanding their own dark triad tendencies can also assist founders in recognizing how their utility preferences may skew evaluations, enabling more deliberate, value-enhancing choices.

Second, our findings provide co-founder candidates with insights into navigating the co-founder market. Candidates can strengthen their appeal by ensuring that utility-enhancing attributes are readily observable to lead founders during early interactions. At the same time, while lead founders differ in how they evaluate interpersonal, resource, and equity considerations based on their dispositional orientations (i.e., dark triad), these tendencies are

not directly known to potential co-founders. Instead, candidates can attend to behavioral cues, such as communication style, negotiation posture, and emphasis on control or collaboration, which may provide indirect indications of underlying tendencies. For instance, candidates may initially demonstrate both interpersonal value and resource contributions while calibrating their equity expectations based on how founders respond during interactions. Interestingly, our findings indicate that requesting a larger equity share from lead founders lower in the dark triad may carry limited downside, as these founders exhibit only slight reductions in perceived partner attractiveness in response to higher equity demands.

Limitations and Future Research

Like all research, our study has limitations, which can serve as a basis for future research. Our use of the conjoint method enabled us to overcome issues of post-hoc analysis and observe entrepreneurs' decision-making in real time (Shepherd & Zacharakis, 2018). However, this comes with the limitation of experimental approaches where co-founder candidates are represented by hypothetical co-founder profiles instead of actual candidates. Relatedly, the experimental setting cannot fully reproduce the high stakes of co-founder selection, where decisions may be influenced by emerging information, third-party influence, or other contextual aspects such as timing (Forbes et al., 2006; Schlichte et al., 2019) or industry characteristics (Brinckmann & Hoegl, 2011). While we mitigated these concerns by discussing our experimental design with entrepreneurs to ensure face validity and clarified the immediate need for a co-founder in the scenario setting, future studies could amend the research design by following lead founders throughout the co-founder selection process and capturing how evaluative weights shift as consequences become more immediate.

Relatedly, our study adopts a unidirectional perspective by focusing on lead founders' evaluations of co-founder profiles, without simultaneously capturing potential co-founders' willingness to join (e.g., Fu et al., 2022). While this design reflects common entrepreneurial practice, where founders evaluate a pool of self-selected candidates such as on co-founder

platforms or matching events, it abstracts from the reciprocal nature of co-founder formation, which requires mutual agreement. Consequently, we capture a one-sided selection decision rather than a two-sided matching equilibrium. Incorporating reciprocal choice and acceptance dynamics would provide a more comprehensive account, particularly as founder characteristics may influence realized partnership outcomes. Future research could address this by examining bidirectional choice processes, for instance through field experiments at co-founder matching events. Moreover, although we model a common lead-co-founder formation pattern (Shah et al., 2019; Walker & Dowd, 2025), we acknowledge that not all teams form this way. As a result, our findings are best interpreted as reflecting the supply-side evaluation of co-founder selection.

Finally, our study focuses on the selection of co-founders, which marks the beginning of the "entrepreneurial marriage." Yet, as Becker (1974, p. S23) noted, the duration of a union depends on "specific investments" made during marriage. Similarly, in entrepreneurial couples, post-selection dynamics—such as caring for a partner's well-being, providing support, and fostering shared commitment—represent investments that strengthen cohesion and reduce the risk of dissolution (Breugst et al., 2015; Hellmann & Wasserman, 2017; Weissenböck et al., 2024). Research also shows that the structure of the initial founding team shapes subsequent organizational arrangements (Beckman & Burton, 2008; Brattström, 2024) and that early team members' behavior influences venture development over time (De Cuyper et al., 2020). Further, like "household-produced commodities" in marriages, co-founder teams co-create psychological safety, cohesion, and emotional attachment that sustain collaboration (Zellmer-Bruhn et al., 2021). Given that replacing a co-founder entails higher relational and economic costs than in typical labor markets (Anderson & Hamori, 2000; Gray et al., 2024a), future research could explore how such relational investments influence long-term team stability.

Conclusion

This paper offers a novel marriage market perspective on co-founder selection, demonstrating how lead founders incorporate social-emotional, economic, and ownership considerations when forming judgments about potential partners. In this regard, we show that equity split, long examined for its downstream effects, plays a foundational role in shaping partner choice itself. Moreover, by uncovering how dark triad tendencies by lead founders shift their judgment from joint to personal utility considerations, we identify a dispositional boundary condition that challenges the cooperative logic typically assumed in co-founder selection. These findings highlight that the formation of founding teams is not solely a function of candidate characteristics, but also of how founders assess these attributes through their dispositional lenses.

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Chapter 4: Through the Passionate Eye: How Entrepreneurial Passion Shapes Founders' Equity Offers to Prospective Co-Founders

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Abstract:
Equity allocation is one of the earliest and most important strategic decisions in new venture creation. By offering equity, lead founders can convince promising candidates to join their entrepreneurial endeavor and thereby seek expertise, networks, and interpersonal alignment. However, in doing so, they also redistribute future venture value, control, and identity claims. We theorize that such ownership offers are shaped not only by the attributes of co-founder candidates, but also by the lead founder's role identity through which they interpret what makes a co-founder candidate ownership-worthy. Drawing on entrepreneurial passion as a role-identity lens, we examine how lead founders' passion for inventing and passion for founding shape equity offers to co-founder candidates. Using a metric conjoint experiment with 3,168 equity-offer decisions from 198 U.S. lead founders, we find that lead founders offer more equity to candidates who share their venture vision and personal values and to co-founder candidates with greater domain expertise and larger networks. More importantly, these effects differ by lead founder's passion: entrepreneurial passion for inventing amplifies the equity value of interpersonal similarity and domain expertise, whereas entrepreneurial passion for founding attenuates the equity value of interpersonal similarity. Our findings advance research on founder equity allocation, entrepreneurial passion, and new venture team formation by showing that equity offers are not merely valuations of candidate quality, but role-identity-contingent allocations of ownership.

Keywords: Entrepreneurial Passion, Equity Ownership, Co-Founder Selection, Conjoint Experiment, Passion for Founding, Passion for Inventing, Role Identity.

Introduction

Founder equity allocation is described as a new venture's "first deal" establishing how ownership is divided before the venture's trajectory is known (Hellmann & Wasserman, 2017, p. 1). This decision is of critical importance as equity represents a central component of founder compensation, and because it creates claims to future venture value, control, decision authority, and recognition within the venture team (Åstebro, 2012; Kagan et al., 2020; Wasserman, 2017; Weissenböck et al., 2024). For lead founders, however, equity allocation involves a fundamental tension. Sharing ownership can help attract co-founders who contribute and are interpersonally aligned, yet doing so dilutes the founder's own ownership position and grants others standing to shape the venture's direction and emerging identity (Forbes et al., 2006; Lazar et al., 2020; Fauchart & Gruber, 2011; Crosina et al., 2024). Beyond a technical division of shares, equity allocation is therefore a formative ownership decision through which founders define who belongs at the core of the venture and how future value, influence, and recognition will be shared.

Prior research has substantially advanced our understanding of why founder equity allocation matters. Equity splits influence founder effort, identification, team dynamics, innovation, financing outcomes, and venture performance (Bitler et al., 2005; Breugst et al., 2015; Hellmann & Wasserman, 2017; Mueller & Hennicke, 2024; Mueller et al., 2026; Weissenböck et al., 2024). Equity allocations also matter to external stakeholders, as investors attend to founders' human capital, team cohesion, founder passion, and the broader resource base of the venture team when screening ventures (Drover & Ademi, 2025; Warnick et al., 2018). Moreover, because equity claims determine the distribution of returns if a venture realizes an acquisition or IPO, early ownership decisions shape the eventual allocation of entrepreneurial wealth (Ademi et al., 2026). The decision carries further practical weight given evidence that relational breakdowns and conflicts over authority can force founders to renegotiate or buy out co-founders later in the venture's development (Howell et al., 2024). Yet

despite growing evidence about the consequences of equity allocation, we know much less about the preceding equity offering decision itself. Existing studies suggest that founder experience and industry background shape how much equity founders retain (Kotha & George, 2012; Yan & Zhang, 2025), but we know relatively little about how lead founders value prospective co-founders before equity is allocated.

We argue that answering this question requires moving beyond what prospective co-founders bring to the table. Established research on entrepreneurial team formation suggests that founders evaluate potential co-founders through two central logics: similarity attraction and resource seeking (Forbes et al., 2006; Lazar et al., 2020; Shah et al., 2019). Similarity in venture vision and personal values can reduce relational uncertainty and support coordination, whereas domain expertise and network size can expand the venture's human and social capital. Therefore, these attributes should theoretically increase a candidate's ownership value. However, equity allocation is not a mechanical conversion of candidate quality into ownership shares. Because equity determines who gains standing, influence, and future claims within the venture (Miller et al., 2011; Wasserman 2012, 2017), the decision is also identity-laden. It asks not only what the candidate contributes, but also what kind of founding relationship and venture structure the lead founder is willing to create.

We therefore theorize entrepreneurial passion as a role-identity lens that shapes how founders interpret what makes a co-founder candidate ownership-worthy. Entrepreneurial passion combines intense positive feelings with the centrality of entrepreneurial activities to the entrepreneur's self-identity (Cardon et al., 2009, 2013). This makes passion particularly relevant for equity decisions because different passion domains correspond to different entrepreneurial role identities. Founders passionate about inventing derive identity meaning from identifying, exploring, and developing opportunities, while founders passionate about founding derive identity meaning from establishing and shaping the venture (Cardon et al., 2009, 2013; Hoang & Gimeno, 2010; Riar et al., 2025). We argue that these passion domains

shape whether candidate attributes of similarity attraction and resource seeking are interpreted as identity-enabling or identity-constraining for the founder's preferred entrepreneurial role. Thus, the same candidate attribute may carry different ownership value depending on the lead founder's passion identity.

We test these arguments using a metric conjoint experiment with 198 U.S. entrepreneurs who made 3,168 equity-offer decisions. The conjoint design allows us to estimate how prospective co-founder attributes affect lead founders' willingness to offer equity while examining whether these effects differ across passion domains that reflect distinct entrepreneurial role identities. Our results show that lead founders offer more equity to candidates who share their venture vision and personal values and to candidates with greater domain expertise and larger networks. More importantly, these effects are contingent on entrepreneurial passion. Entrepreneurial passion for inventing amplifies the equity value of interpersonal similarity and domain expertise, whereas entrepreneurial passion for founding attenuates the equity value of interpersonal similarity.

Our study makes three central contributions. First, we contribute to research on founder equity allocation by shifting attention from the consequences of realized equity splits to the equity-offer decision itself. Prior research has shown that equity splits shape founder- and team-level outcomes as well as broader venture trajectories (e.g., Breugst et al., 2015; Mueller & Hennicke, 2024; Mueller et al., 2026; Wasserman, 2017; Weissenböck et al., 2024). We extend this work by examining how lead founders assign ownership value to prospective co-founders before those ownership structures shape the venture's subsequent development. This matters because seemingly small differences in initial equity offers can become durable ownership baselines (Hellmann & Wasserman, 2017; Wasserman, 2012). Second, we contribute to entrepreneurial passion and identity research by showing that passion is not only a source of entrepreneurs' own motivation, persistence, and venture-building behavior (Newman et al., 2021; Naumann et al., 2026), but also a role-identity lens that shapes strategic decisions

involving others in nascent venture formation. Whereas prior work has primarily examined how entrepreneurial passion affects entrepreneurs' own cognitions, actions, and outcomes, we show that it also shapes how founders allocate ownership value to prospective co-founders. By demonstrating that passion for inventing and passion for founding differentially alter the equity value of the same candidate attributes, we advance a more domain-sensitive account of entrepreneurial passion and show how founder role identities enter consequential ownership decisions (Cardon et al., 2009, 2013; Naumann et al., 2026; Zhao & Liu, 2023). In doing so, we extend calls for more domain-sensitive and mechanism-focused research on entrepreneurial passion by showing how passion differentially shapes entrepreneurial action and decision-making (Naumann et al., 2026; Riar et al., 2025; Zhao & Liu, 2023). Third, we contribute to new venture team formation research by extending attention from whether a candidate joins the founding team to how much of the venture the candidate is perceived to deserve. In doing so, we show that interpersonal similarity and resources do not merely shape co-founder selection (Forbes et al., 2006; Gray et al., 2024a, 2024b; Lazar et al., 2020; Shah et al., 2019), but also how much ownership a prospective co-founder is granted. This shift is theoretically important because team formation is not only a process through which founders select collaborators, but also an ownership-design process through which founders allocate future value, authority, and identity claims among collaborators. The equity allocation process, we argue, is therefore a crucial bridge between founder identity, co-founder evaluation, and the ownership architecture of new ventures.

Theory and Hypotheses

Equity offers to prospective co-founders formalize uncertain expectations about future collaboration into concrete ownership claims. This formalization is consequential because founder equity is not simply payment for expected contribution. Equity represents a central component of founder compensation (Åstebro, 2012; Hall & Woodward, 2010; Wasserman, 2006), provides incentives for sustained venture development (Kagan et al., 2020), and shapes

power dynamics, decision authority, and strategic influence within the founding team (Breugst et al., 2015; Hellmann & Wasserman, 2017; Wasserman, 2012). Thus, when lead founders decide how much equity to offer a prospective co-founder, they are not merely evaluating candidate attractiveness, but they are also assigning ownership value to a person who may become part of the venture's founding core.

Prior research has generated important insights into the consequences of founder equity allocations. Studies have examined how equity splits affect venture performance (Mueller & Hennicke, 2024), funding outcomes (Hellmann & Wasserman, 2017), pre-money valuations (Wasserman, 2017), innovation behavior (Mueller et al., 2026), team identification (Weissenböck et al., 2024), team interaction spirals (Breugst et al., 2015), and openness to additional team members (Mueller & Hennicke, 2024). This work has substantially advanced understanding of why examining founder equity is central to entrepreneurship research. Yet comparatively less is known about the equity offer decision itself. Particularly, how lead founders evaluate prospective co-founders and turn those evaluations into equity offers before the venture's trajectory and each founder's contribution can be fully observed.

Overcoming this shortcoming is important because equity decisions are made under uncertainty and carry both economic and relational consequences (McMullen & Shepherd, 2006; Wasserman, 2017). Existing studies suggest that entrepreneurs with greater entrepreneurial experience (Yan & Zhang, 2025) and specific industry experience (Kotha & George, 2012) tend to retain more equity, but we know less about how lead founders evaluate the attributes of prospective co-founders. This is especially relevant because early ownership decisions can later become a source of relational strain, conflict over authority, or co-founder exit (Breugst et al., 2015; Howell et al., 2024). Equity offers require founders to determine who belongs at the core of the venture, how much future contribution is worth, and how much control they are willing to share.

To theorize this decision, we draw on the two established logics in new venture team formation: interpersonal similarity attraction and resource seeking (Forbes et al., 2006; Gray et al., 2024a, 2024b; Lazar et al., 2020, 2022; Shah et al., 2019). These logics explain why founders select individuals to become part of the co-founder team. Similarity attraction emphasizes the relational value of co-founders who are interpersonally aligned with the lead founder, whereas resource seeking highlights the instrumental value of co-founders who provide human and social capital for venture advancement. In the context of equity allocation, both logics should explain why some prospective co-founders receive larger ownership offers than others, but for different reasons.

Interpersonal similarity attraction and equity offers

Interpersonal similarity attraction suggests that individuals are more likely to be attracted to, trust, and form relationships with others who share important attitudes, values, and understandings (Berscheid & Reis, 1998; Byrne et al., 1971; Williams & O'Reilly, 1998). In entrepreneurship, this logic has been widely used to explain founding team formation and co-founder selection (Forbes et al., 2006; Gray et al., 2024b; Lazar et al., 2020, 2022; Ruef et al., 2003). Early research documented similarity in observable characteristics such as age, gender, education, background, and prior affiliations (Forbes et al., 2006; Ruef et al., 2003; Steffens et al., 2012). More recent work emphasizes that less visible forms of similarity, including shared values, shared interests, and commitment to the venture, are particularly central to the formation and functioning of entrepreneurial teams (Discua Cruz et al., 2013; Fu et al., 2022; Zellmer-Bruhn et al., 2021).

We focus on two forms of interpersonal similarity that are especially relevant for equity offers: similarity of venture vision and similarity of personal values. Similarity of venture vision captures alignment about what the venture should become, whereas similarity of personal values captures agreement about the principles that should guide collaboration and venture building. These forms of interpersonal similarity should increase equity offers because they can

ease communication, foster trust, support shared mental models, and reduce relational uncertainty in founding teams (Discua Cruz et al., 2013; Ensley et al., 2002; Forbes et al., 2006; Grossman et al., 2012; Lazar et al., 2020). Conversely, interpersonal dissimilarity can increase the risk of disagreement, conflict, and exit (Forbes et al., 2006; O'Reilly et al., 1989).

Because equity offers grant candidates a place in the venture's ownership core, lead founders should assign greater ownership value to candidates who appear relationally aligned and easier to coordinate with. Interpersonal similarity should therefore increase equity offers not only because similar candidates are attractive collaborators, but because they are perceived as more suitable partners for shared ownership. Accordingly, we hypothesize:

> ***Hypothesis 1****: A co-founder candidate's interpersonal similarity—captured by (a) similarity of venture vision and (b) similarity of personal values—is positively related to the equity offered by the lead founder.*

Resource seeking and equity offers

Resource seeking provides a complementary explanation for why founders add co-founders to new venture teams. New ventures often lack established routines, reputations, and resource bases, making founder-level human and social capital especially important for early development (Beckman & Burton, 2008; Davidsson & Honig, 2003; Jin et al., 2017; Klotz et al., 2014). From this perspective, co-founders are valuable because they bring knowledge, skills, experience, contacts, and access to external resources that the venture would otherwise lack (Forbes et al., 2006; Gray et al., 2024a; Lazar et al., 2020; Shah et al., 2019). This resource logic is also consistent with evidence that external stakeholders (e.g., venture capitalists) attend to the resource base of founding teams when evaluating ventures (Drover & Ademi, 2025).

We capture candidates' resource base through domain expertise and network size. Domain expertise reflects knowledge and skills in the venture's domain that can support opportunity evaluation, product or service development, and venture execution (Jin et al., 2017; Lazar et al., 2020; Ucbasaran et al., 2003). Network size reflects access to information, contacts, investors, partners, and other resources that may support venture advancement (Greve & Salaff,

2003; Liao & Welsch, 2005; Semrau & Werner, 2014). Such resources may also matter for later venture milestones, as founding teams with broader knowledge and resources can reach milestones faster and improve prospects for external evaluation and exit (Ademi et al., 2026; Beckman & Burton, 2008).

Because equity can attract and motivate contributors whose future efforts are difficult to contract fully, lead founders should offer more ownership to candidates whose resources increase the venture's expected development potential. Resourceful candidates should therefore be perceived not merely as useful contributors, but as ownership-worthy partners whose expected contribution justifies a larger equity stake. Therefore, we hypothesize:

> ***Hypothesis 2****: A co-founder candidate's resource base—captured by (a) domain expertise and (b) network size—is positively related to the equity offered by the lead founder.*

Founder role identity and entrepreneurial passion in equity offers

The preceding hypotheses establish interpersonal similarity attraction and resource seeking as two central formation strategies through which lead founders evaluate the value of prospective co-founders (Forbes et al., 2006; Lazar et al., 2020). Both help explain why certain candidate attributes should be perceived as valuable in an equity offer decision. Yet they do not fully explain why the same attributes may carry different ownership value for different founders.

Equity offers are made by lead founders whose self-understandings shape how they interpret what a prospective co-founder means for the venture and for their own role within it. We build on founder role identity theory, which suggests that entrepreneurs do not interpret strategic decisions only through economic criteria, but also through role-based self-definitions that make certain actions, relationships, and organizational arrangements feel appropriate for "who they are" as entrepreneurs (Fauchart & Gruber, 2011; Gruber & MacMillan, 2017; Powell & Baker, 2017; Radu-Lefebvre et al., 2021; Wagenschwanz, 2021). As interpretive frames, founder identities shape how entrepreneurs understand venture opportunities, organize early activities, and make strategic choices that imprint emerging firms (Fauchart & Gruber, 2011;

Powell & Baker, 2017; Radu-Lefebvre et al., 2021; Wagenschwanz, 2021). Especially in early ventures, where formal structures and routines are still emerging, such self-understandings are especially consequential because founders retain substantial discretion over who joins the venture and how the venture takes shape and because the venture itself can become intertwined with the founder's self-concept (Crosina et al., 2024; Hoang & Gimeno, 2010). Indeed, founder-venture identity relationships can be mutually constitutive: founders define themselves through their ventures, while changes to the venture can reverberate back to how founders understand themselves (Crosina et al., 2024; Shepherd et al., 2020).

Equity offer decisions are particularly identity-relevant because they determine who gains standing in the venture's ownership structure. It is identity-laden because the decision allocates not only financial claims but also symbolic standing, strategic influence, and recognition at the core of the venture (Breugst et al., 2015; Hellmann & Wasserman, 2017; Kagan et al., 2020; Weissenböck et al., 2024). By offering equity, lead founders therefore do more than compensate for the expected contribution. They position the candidate as a co-owner whose role carries legitimate claims to future value, influence, and participation in shaping the venture. Equity allocation therefore provides a theoretically useful setting for examining how founder role identities enter strategic decisions involving others.

We theorize entrepreneurial passion as the role-identity lens through which such interpretation occurs. Entrepreneurial passion refers to intense positive feelings toward entrepreneurial activities that are central to an entrepreneur's self-identity (Cardon et al., 2009, 2013). Thus, passion is not merely affective energy or generalized enthusiasm. It combines positive feelings with identity centrality, meaning that entrepreneurs are passionate about activities through which they enact who they understand themselves to be, that is their founder role identity. Because passion is anchored in identity, it activates cognitive processes through which entrepreneurs interpret entrepreneurial situations and pursue identity-relevant goals (Cardon et al., 2009; Murnieks et al., 2020; Naumann et al., 2026). Entrepreneurial passion

should therefore shape not only how much effort entrepreneurs invest in the activities they identify with, but also how they evaluate situations, people, and decisions that bear on those identity-relevant activities (Murnieks et al., 2014, 2020; Newman et al., 2021; Naumann et al., 2026).

The domain-specific structure of entrepreneurial passion is central to our theorizing. Cardon et al. (2009, 2013) distinguish among passion for inventing, passion for founding, and passion for developing. These domains are identity anchors through which entrepreneurs experience entrepreneurial activity as meaningful and affectively rewarding (Cardon et al., 2013; Riar et al., 2025). Passion for inventing captures affective and identity meaning derived from identifying, exploring, and developing new opportunities, products, or services. Passion for founding captures affective and identity meaning derived from establishing a venture by assembling financial, human, and social resources and creating the organizational basis for a new firm. Passion for developing centers on growing and expanding an established venture. Because our study concerns equity offers to prospective co-founders at the moment of venture formation, we focus on passion for inventing and passion for founding as the two passion domains most directly implicated in this early decision. This focus is consistent with recent work emphasizing that entrepreneurial passion should be theorized in domain-sensitive ways, because passion domains may differ in their cognitive, behavioral, and performance implications (Newman et al., 2021; Naumann et al., 2026; Riar et al., 2025; Zhao & Liu, 2023).

This role-based perspective implies that the same candidate attribute can be interpreted differently depending on the founder's passion identity. Similarity in venture vision, similarity in personal values, domain expertise, and network size may all signal value to the venture. However, their ownership value should depend on whether the lead founder interprets them as enabling or constraining the entrepreneurial activity through which the founder derives identity meaning. Candidate attributes are identity-enabling when they help the lead founder enact an entrepreneurial activity that is affectively meaningful and central to the self. They are identity-

constraining when they make such enactment more difficult, blur the founder's role, or competing claims over the founder's role or the venture's direction. Thus, we propose that entrepreneurial passion provides a mechanism for explaining why founders may assign different equity value to the same prospective co-founder attributes. In doing so, our founder-role-identity theorizing extends the baseline logic of similarity attraction and resource seeking by explaining how lead founders translate candidate attributes into ownership offers through passion-based interpretations of identity enablement and identity constraint. We next develop how passion for inventing and passion for founding differentially moderate the equity value of interpersonal similarity and candidate resources.

Entrepreneurial passion for inventing and the equity value of candidate attributes

Building on this role-identity logic, we first argue that passion for inventing strengthens the equity value of candidate attributes that support opportunity exploration and idea development. Passion for inventing is rooted in the entrepreneurial role of identifying, exploring, and developing new opportunities, products, or services (Cardon et al., 2009, 2013). Because the inventor identity centers on opportunity exploration, idea development, and the pursuit of novel solutions, lead founders high in passion for inventing should assign greater ownership value to candidates whose attributes enable the uncertain and iterative work of developing the venture idea into a business.

Interpersonal similarity should be particularly valuable for inventing-passionate lead founders. Similarity of venture vision provides a shared understanding of what the venture could become, while similarity of personal values provides a basis for open exchange, and coordinated action. These relational benefits are especially important in early venture contexts, where founders must coordinate under uncertainty, make consequential decisions with limited information, and avoid interpersonal frictions that can derail the emerging founding relationship (Boone et al., 2020; Breugst et al., 2015; Forbes et al., 2006). Broader team innovation research similarly suggests that shared vision, cohesion, support for innovation, and teamwork quality

are important predictors of creative and innovative outcomes (Hoegl & Gemuenden, 2001; Hülsheger et al., 2009).

For inventing-passionate lead founders, interpersonal similarity should therefore be interpreted as identity-enabling. A candidate who shares the founder's venture vision is likely to be seen as a co-creative partner who can help elaborate the emerging opportunity without redirecting it away from the founder's inventive aspirations. Similarly, a candidate who shares the founder's personal values is likely to support a collaborative context in which the founder can continue to experience inventing as meaningful, self-congruent, and affectively rewarding. Thus, interpersonal similarity should not only signal relational fit; it should also signal that the candidate can help the founder enact the inventor role in a co-founder relationship. Accordingly, we propose:

> ***Hypothesis 3****: Passion for inventing positively moderates the relationship between a co-founder candidate's interpersonal similarity to the lead founder—captured by (a) similarity of venture vision and (b) similarity of personal values—and the equity offered by the lead founder, such that the relationship is stronger when passion for inventing is higher.*

Candidate resources should also become more ownership-worthy for lead founders high in passion for inventing. Because passion for inventing is rooted in identifying, exploring, and developing new opportunities, products, or services, inventing-passionate founders should be especially attentive to candidates who can strengthen the knowledge and information base required for opportunity exploration and idea refinement. Domain expertise can improve opportunity evaluation, product or service development, and the translation of ideas into viable offerings (Jin et al., 2017; Lazar et al., 2020; Shane, 2000; Ucbasaran et al., 2003). Prior related knowledge is also central to recognizing, assimilating, and applying external knowledge for innovative purposes, suggesting that expertise can strengthen the knowledge base through which opportunities are developed and refined (Cohen & Levinthal, 1990). For inventing-passionate founders, such expertise should therefore be interpreted not only as a general

contribution to the venture, but as an identity-enabling resource that supports the founder's own ability to enact the inventor role.

A candidate's network size should operate similarly. Large networks can expand access to contacts, advisors, external knowledge, and feedback channels that expose the venture idea to new information and recombination possibilities (Greve & Salaff, 2003; Liao & Welsch, 2005; Semrau & Werner, 2014). For lead founders high in passion for inventing, these network resources should be particularly valuable because they provide the external inputs through which emerging ideas can be tested, improved, and recombined. Thus, candidates with strong domain expertise or large networks should be perceived as more central to the founder's identity-central work of invention. Because equity offers grant ownership standing to those seen as important for the venture's future creation, passion for inventing should strengthen the positive relationship between candidate resources and equity offers. Therefore, we hypothesize:

> ***Hypothesis 4****: Passion for inventing positively moderates the relationship between a co-founder candidate's resource base—captured by (a) domain expertise and (b) network size—and the equity offered by the lead founder, such that the relationship is stronger when passion for inventing is higher.*

Entrepreneurial passion for founding and the equity value of candidate attributes

We next argue that passion for founding alters the equity value of candidate attributes differently. Passion for founding centers on assembling the financial, human, and social resources needed to create a new venture and on experiencing the founding event as a meaningful enactment of the founder role (Cardon et al., 2009, 2013). Because the founder role can become central to entrepreneurs' self-concept, lead founders high in passion for founding are likely to attach identity meaning to being the person who establishes and gives initial shape to the venture (Cardon et al., 2009, 2013; Hoang & Gimeno, 2010). For these founders, equity offer decisions should therefore be interpreted through the lens of whether a candidate supports or complicates their identity-central role in establishing, organizing, and shaping the venture.

Interpersonal similarity has an ambivalent meaning in this context. Similarity in venture vision and personal values generally facilitates cohesion, trust, alignment, and relational fit within founding teams (Ensley et al., 2002; Forbes et al., 2006; Lazar et al., 2020). Yet when such similarity is rewarded with equity, it can also position the candidate as someone with legitimate standing to shape the same venture direction, values, and organizational identity from which the lead founder derives founding-related identity meaning. For founders whose passion is anchored in establishing the venture, similarity may therefore blur the distinctiveness and centrality of their founder role identity. Rather than only enabling collaboration, a similar co-owner may constrain the founder's ability to experience founding as a self-defining activity in which they give initial shape to the venture.

Consequently, passion for founding should weaken the extent to which interpersonal similarity is translated into equity offers. Lead founders passionate about founding may still recognize the relational benefits of similarity, but they should be more cautious in granting ownership on this basis because equity formalizes the candidate's role in shaping the venture's direction and core identity. In the language of our theorizing, interpersonal similarity may therefore become less identity-enabling and more identity-constraining as passion for founding increases. Hence, we hypothesize:

> ***Hypothesis 5****: Passion for founding negatively moderates the relationship between a co-founder candidate's interpersonal similarity—captured by (a) similarity of venture vision and (b) similarity of personal values—and the equity offered by the lead founder, such that the relationship is weaker when passion for founding is higher.*

Candidate resources create a related but distinct tension for founding-passionate lead founders. Resource seeking is central to new venture formation because co-founders can bring knowledge, skills, contacts, legitimacy, and access to external resources that the venture otherwise lacks (Beckman & Burton, 2008; Davidsson & Honig, 2003; Forbes et al., 2006; Jin et al., 2017; Lazar et al., 2020; Shah et al., 2019). At the same time, passion for founding is itself anchored in assembling resources and creating the organizational basis of the venture

(Cardon et al., 2009). Thus, for founding-passionate entrepreneurs, candidates with strong resources may be evaluated not only in terms of what they contribute, but also in terms of how much dependence, shared authority, and identity-relevant constraint their contribution creates. This concern is consistent with the broader founder dilemma that attracting valuable resources can come at the cost of preserving control over the venture (Wasserman, 2012, 2017).

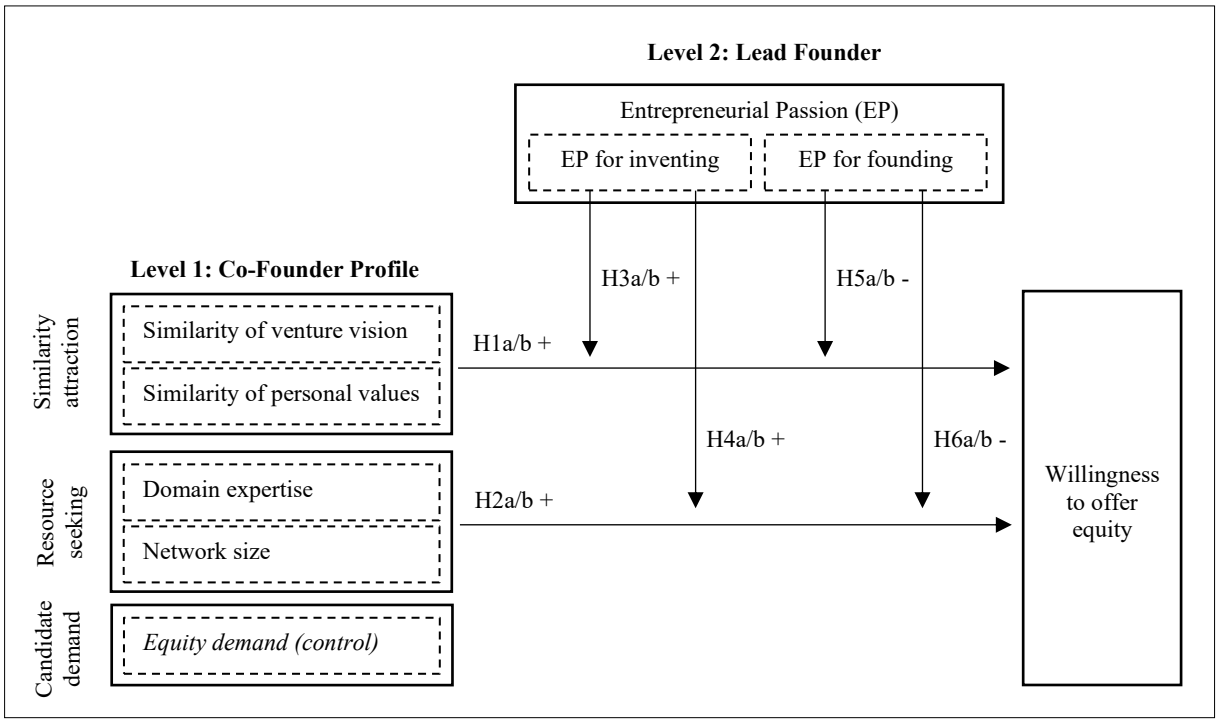
We illustrate this tension through domain expertise. Although expertise can increase a candidate's expected contribution, it can also give the candidate greater authority in evaluating technical, market, or strategic choices, as specialized knowledge and resource endowments can become bases of authoritative power in entrepreneurial opportunity processes (Audretsch & Fiedler, 2023). For founders whose passion is anchored in establishing and shaping the venture, such authority may limit their ability to enact the founder role as the central organizer of the venture's direction. The network size of a prospective co-founder creates a similar concern. A large network may provide valuable access to external actors, information, and opportunities, but it may also increase the candidate's brokerage position and introduce external expectations into the venture's early organization. Such network-based influence may shift the locus of venture-shaping activity away from the lead founder and toward the resourceful co-founder candidate, thereby weakening the extent to which the lead founder can experience founding as an identity-congruent and self-defining activity.

Thus, although resourceful candidates remain valuable, founding-passionate lead founders should be less willing to convert those resources into larger equity offers. In contrast to resource acquisition without ownership, equity positions the resourceful candidate as a co-owner whose expertise and networks may justify influence over the venture's organization, priorities, and direction. Accordingly, we propose:

> ***Hypothesis 6****: Passion for founding negatively moderates the relationship between a co-founder candidate's resource base—captured by (a) domain expertise and (b) network size—and the equity offered by the lead founder, such that the relationship is weaker when passion for founding is higher.*

An overview of all hypotheses is provided below.

Figure 4.1 *Conceptual Model*



Note. Level 1 represents co-founder candidate attributes. Level 2 represents founder characteristics. Solid horizontal arrows depict hypothesized positive main effects of similarity attraction (H1a: similarity of venture vision; H1b: similarity of personal values) and resource seeking (H2a: domain expertise; H2b: network size) attributes on founders' willingness to offer equity. Solid vertical arrows depict hypothesized cross-level moderation effects: entrepreneurial passion for inventing is hypothesized to strengthen (+) the positive effects of both similarity attraction (H1a/b) and resource seeking (H2a/b) attributes on willingness to offer equity, while entrepreneurial passion for founding is hypothesized to weaken (–) the respective effects (H3a/b, H4a/b).

Method

Research design

To study entrepreneurs' willingness to offer equity to potential co-founders, we employed a metric conjoint experiment as seen in various entrepreneurial contexts, such as decisions to join a new venture team (Fu et al., 2022) or initial investment decisions (Ademi et al., 2023). Conjoint experiments are a suitable method to study entrepreneurs' decision making (Grégoire et al., 2019; Lohrke et al., 2010). Moreover, by eliciting preferences in real time, the conjoint design captures decision-making during the actual choice process and thus mitigates the constraints of post-hoc methods, including surveys and interviews (Shepherd & Zacharakis, 2018). Following established conjoint designs in entrepreneurship (e.g., Kleinert & Hildebrand,

2024), our study contains three main parts: the scenario and task description, co-founder selection tasks, and a post-hoc survey.

Conjoint decision task: scenario and candidate profiles

Our experiment puts participants in the situation of having a promising entrepreneurial idea for which they decided to look for a co-founder as part of the venture creation process. To make sure that general co-founder selection criteria are not neglected, we outlined that all co-founder candidates are available, seriously interested and have profiles that generated interest for selection. We included the statement that each candidate has successfully completed pre-selections interviews personally. We present the scenario of the conjoint decision task in Table 4.1a. Furthermore, we explicitly stated that the co-founder profiles do not differ in any other aspects besides the following five attributes: (1) similarity of venture vision, (2) similarity of personal values, (3) domain expertise, (4) network size and (5) equity demand. We include key co-founder selection attributes from the established selection strategies, namely similarity attraction (1,2), and resource acquisition (3,4) (Gray et al., 2024b; Lazar et al., 2020). As we theoretically and empirically explore equity divisions, we control for (5) equity demand of the co-founder as negotiation factor drawing upon research showing that demands influence perceptions in decision-making (Kahneman, 1992; Maaravi & Segal, 2022). The operationalization of these five co-founder profile attributes is divided between “low or small” and “high and large” levels and is displayed in Table 4.1b.

Table 4.1 *Conjoint Decision Task*

4.1a Control scenario

Please assume that you are in the following situation:

You have a promising entrepreneurial idea, for which you have already initiated the venture creation process. You are currently the sole owner of this new venture. In other words, you would hold 100% of its equity. However, as part of the initiation process and before officially founding the venture, you decided to look for a co-founder and are now in the situation to evaluate potential candidates.

Please assume that all co-founder candidates you will see now:

- are **available**, **motivated,** and **seriously interested** in becoming your co-founder,
- have successfully **completed pre-selection interviews** with you personally,
- have a profile you find **generally interesting** to select,
- are **willing to relocate** if you expect them to do so, and
- **fulfill expectations** regarding **demographics** (e.g., age, gender) and **family/personal circumstances** you might have.

4.1b Operationalization of co-founder profile attributes

Attribute	Low level	High level
Similarity of venture vision	The candidate's vision for the new venture has a *low* degree of similarity to your venture vision.	The candidate's vision for the new venture has a *high* degree of similarity to your venture vision.
Similarity of personal values	The candidate 's personal values have a *low* degree of similarity to your personal values.	The candidate's personal values have a *high* degree of similarity to your personal values.
Domain expertise	The candidate has a *low* level of expertise (i.e., knowledge and skills) in the domain of the new venture.	The candidate has a *high* level of expertise (i.e., knowledge and skills) in the domain of the new venture.
Network size	The candidate has a *small* network of contacts accessible for the new venture (e.g., to attain resources).	The candidate has a *large* network of contacts accessible for the new venture (e.g., to attain resources).
Equity demand	The candidate demands a *small* equity share in the new venture.	The candidate demands a *large* equity share in the new venture.

Note. Respondents were presented with this table prior to evaluating the co-founder candidates. Throughout the decision tasks, respondents were provided with a link to the detailed description of each attribute as presented in this table.

Overall, our conjoint design consists of five decision attributes with two levels. Therefore, a complete design would necessitate participants to assess 32 (25) profiles (Shepherd & Zacharakis, 1999). We applied an orthogonal fractional design to reduce the number of

profiles to a manageable amount from 32 to 16 profiles (Shepherd & Zacharakis, 2018), as fatigue in time-consuming conjoint experiments showed to impact decisions (Reibstein et al., 1988). We introduced two detailed practice profiles with comprehensive explanations of the decision attributes in the beginning of the decision tasks to make participants familiar with the setting (e.g., Warnick et al., 2018). Once the entrepreneurs evaluated the practice profiles, they proceeded to analyze the remaining co-founder profiles without the explanatory paragraphs. If necessary, they clicked a link to access comprehensive explanations of the attribute levels. To alleviate the possibility of order bias (Chrzan, 1994), we designed three distinct versions of the conjoint experiment, in which we also randomized the sequence of attributes for each co-founder profile. Excluding the practice profiles from the formal analysis, we analyze sixteen profiles in the main test, and eight replicated profiles in the retest.

Insights from face validity interviews

To enhance the authenticity and ecological validity of our research, we conducted nine semi-structured interviews with entrepreneurs to determine crucial co-founder selection criteria and their appropriate operationalization, thereby ensuring the inclusion of relevant attributes aligned with real-world co-founder selection practices (Shepherd & Zacharakis, 1999). Furthermore, we asked entrepreneurs to jointly develop the boundary conditions of our conjoint scenario. During our qualitative interviews, entrepreneurs affirmed that decision attributes are objective, understandable, and relevant for them in a co-founder selection decision. While some entrepreneurs pointed out the particular importance of domain expertise, similar personal values, or network size, others showed their highest appreciation for similarity of venture vision. We present attribute-based insights of entrepreneurs in Appendix 4.A. In sum, the participating entrepreneurs helped refine the scenario with minor adjustments in wording, confirmed overall face validity of the experiment, and demonstrated varying importance for decision attributes providing a rationale for the exploration of founder-level differences in a decision scenario.

Sample

We targeted entrepreneurs to participate in our experiment. The selected sample is well-suited for our investigation due to their entrepreneurial experience and familiarity with the decision-making scenario. We collaborated with Dynata, a professional business-to-business sample provider previously called Research Now, which has been used in recent studies (e.g., Enke et al., 2022; Estep et al., 2023; Nickel et al., 2026a, 2026b; Wilden et al., 2023) for participants identification and recruitment. Specifically, we asked Dynata to target its professional sample of "business owners and founders." Considering the significance of efficient screening (Bentley, 2021), we employed five pre-screening questions (e.g., have you founded or co-founded your venture?) to ensure a high-quality sample that captures actual entrepreneurs rather than self-employed individuals or mere business owners who may not have experienced the nascent entrepreneurial phase. Of the 202 entrepreneurs who completed the experiment, those exhibiting inconsistent or implausible responses (e.g., age-experience ratio) were excluded from the analysis to ensure data quality. The final sample consists of 198 U.S. entrepreneurs with an average entrepreneurial experience of 11.18 years.

Dependent variable

To capture participants' decision regarding the willingness to offer equity to a co-founder candidate, we adapted the dependent variable used for venture investment decisions (e.g., Murnieks et al., 2016; Warnick et al., 2018), which captures the willingness to invest. The adaptation is appropriate as entrepreneurs like investors need to decide to commit their resources to pursue an entrepreneurial endeavor together with a co-founder. We measure participants' willingness to offer equity in %. Unlike attitudinal or intentional proxies, equity percentage provides a cardinal, incentive-compatible measure that directly reflects the decision-maker's valuation of the candidate and willingness to dilute personal ownership (Wasserman, 2012). To ensure ecological validity, participants were explicitly informed that they hold 100%

equity as the venture's sole founder and were asked to specify the share they would be willing to offer to the candidate under evaluation.

Entrepreneur and control variables

To better understand heterogeneity in entrepreneurs' equity offering decisions, we administered a post-hoc survey capturing individual-level characteristics, attitudes, and backgrounds. We gathered personal data (such as *age*, *gender*, and *education*) and professional data (such as *entrepreneurial experience* (in years), extend of *active co-founder search*, and *venture failure experience*). We examined *entrepreneurial passion for founding* and *inventing* (Cardon et al., 2013), as the central moderation factors of our study. Each entrepreneurial passion domain comprises two theoretically distinct components: intense positive feelings associated with role-specific entrepreneurial activities and the identity centrality of the corresponding role. Consistent with Cardon et al.'s (2013) measurement approach, we calculated domain-specific passion scores by averaging the feelings items and multiplying this average by the respective identity-centrality item. The feelings components demonstrated good internal consistency for passion for inventing ($\omega = .838$, $\alpha = .826$) and passion for founding ($\omega = .818$, $\alpha = .807$). In addition, we collected data to control for *passion for developing* (Cardon et al., 2013), as well as for *harmonious* and *obsessive passion* (Vallerand et al., 2003) *of entrepreneurs* (Stroe et al., 2018). We included all five entrepreneurial passion constructs due to their relevance for co-founders joining founders (Fu et al., 2022), assuming their relevance in the reversed setting. For the stated constructs, we used the established scales from the cited articles. Finally, we collected participants' general evaluation of each candidate profile, capturing *co-founder attractiveness* through participants' overall willingness to select the respective co-founder profile. This variable enables us to control baseline co-founder candidate appeal when analyzing equity offer decisions.

Analysis and Results

Our experimental design yields a multilevel data structure in which equity offer decisions (level 1, within-entrepreneur) are nested within lead founders (level 2, between-individual), the standard structure for metric conjoint data (Maula & Stam, 2020; Shepherd & Zacharakis, 2018). Each entrepreneur evaluated sixteen co-founder profiles in the main test and eight replicated profiles in the retest, yielding 3,168 main-test decisions (198 x 16) and 1,584 retest decisions (198 x 8). The intraclass correlation coefficient (ICC = 0.36) far exceeds the conventional 0.05 threshold (Aguinis et al., 2013), confirming substantial between-entrepreneur variance and justifying cross-level estimation. We therefore tested our hypotheses using hierarchical linear modeling (HLM), specifying a random-intercept, random-slope model with level-1 predictors group-mean centered, level-2 predictors grand-mean centered, and standard errors clustered at the entrepreneur level (Aguinis et al., 2013). We base our main analysis on the 3,168 main-test decisions. To gauge confidence in our results, we assessed test-retest reliability following Schueler et al.'s (2024) workflow, in line with best practices in recent conjoint studies (e.g., Lindlar et al., 2026; Nickel et al., 2026a; Theunissen et al., 2025). Specifically, we estimated separate entrepreneur-clustered models for the main test and replicated profile sets and compared their coefficient patterns. Slope-difference tests revealed no significant differences in any level-1 effect across rounds, and profile-level agreement was high (ICC(3, k) = 0.74-0.98), indicating stable and reliable response patterns. We outline the comprehensive analysis in Appendix 4.B and 4.C.

Descriptive statistics

We present descriptive statistics and bivariate correlations among dependent and control variables in Table 4.2.

Table 4.2 *Descriptive Statistics, Bivariate Correlations, and Measures*

Variables and measures	Mean	S.D.	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	VIF
(1) Average WTO	18.97	11.07	1.00													–
(2) Age	50.59	14.08	–0.05	1.00												1.52
(3) Gender	0.50	0.50	0.02	0.08	1.00											1.06
(4) Education	2.89	0.75	0.01	0.15**	0.08	1.00										1.06
(5) Entrepreneurial experience	11.18	11.39	–0.25***	0.51***	0.14**	0.09	1.00									1.50
(6) Active co-founder search	2.60	1.77	0.20***	–0.27***	0.04	–0.08	–0.17**	1.00								1.21
(7) Venture failure experience	0.30	0.46	–0.05	–0.10	–0.01	–0.02	0.07	0.18**	1.00							1.11
(8) Passion for founding	36.81	10.24	–0.10	–0.13*	–0.01	–0.11	–0.06	0.10	–0.01	1.00						2.89
(9) Passion for developing	32.53	11.24	–0.02	–0.16**	0.00	–0.18**	–0.11	0.17**	0.11	0.73***	1.00					2.74
(10) Passion for inventing	33.41	10.51	0.02	–0.15**	0.02	–0.13*	–0.14*	0.24***	0.08	0.66***	0.66***	1.00				2.19
(11) Harmonious passion	3.96	0.68	–0.05	0.01	–0.08	–0.06	–0.03	0.09	–0.05	0.64***	0.61***	0.50***	1.00			2.03
(12) Obsessive passion	2.80	0.88	0.03	–0.07	0.07	–0.07	0.00	0.08	0.00	0.35***	0.31***	0.15**	0.35***	1.00		1.25
(13) Co-founder attractiveness	4.34	1.13	0.38***	–0.25***	0.03	–0.04	–0.29***	0.27***	0.12	0.01	0.08	0.08	0.08	0.14*	1.00	1.21

Note. Correlation matrix reflects level 2 variables of 198 U.S. entrepreneurs. Means, S.D.s and bivariate correlations were computed with unstandardized variables on level 2 for enhanced interpretation. S.D. = Standard deviation. VIF = Variance inflation factor. Average WTO = an individuals' mean "willingness to offer equity (in %)" across all 16 original co-founder profiles (main test). Age in years. Gender: 1 = male, 0 = female. Education: 1 = no degree, 2 = high school degree or equivalent, 3 = undergraduate degree, 4= graduate degree, and 5 = doctoral degree. Entrepreneurial experience in years. Respondents indicated their extent towards actively searching for a co-founder on a 7-point Likert scale, ranging from 1 (not at all) to 7 (to a great extent). We include a binary indicator capturing prior entrepreneurial venture failure, coded as 1 if participants had previously experienced the failure of their entrepreneurial venture and 0 otherwise. In line with Cardon et al. (2013), we treated passion for founding, developing, and inventing as multiplicative interaction between identity centrality and intense positive feelings and thus report them on a scale from 1 to 49. Harmonious and obsessive passion of entrepreneurs (Stroe et al., 2018) are reported on a 1-5 scale. Finally, we report participants' mean evaluation across all 16 original profiles as an indicator of general co-founder attractiveness. Specifically, participants reported their general willingness to select a candidate as a co-founder on a nine-point Likert-type scale ranging from 1 to 9. *$*p<0.1$; **$p < 0.05$; ***$p < 0.01$.*

Our sample comprises 198 U.S. entrepreneurs, evenly split by gender (99 female, 99 male), with a mean age of 50.59 years (S.D. = 14.08) and an average of 11.18 years (S.D. = 11.39) of entrepreneurial experience. In terms of education, none of the respondents held no degree, 61 (30.81%) held a high school degree or equivalent, 104 (52.53%) an undergraduate degree, 27 (13.64%) a graduate degree, and 6 (3.03%) a doctoral degree. Bivariate correlations are generally modest in magnitude and show no anomalous patterns. Willingness to offer equity correlates most strongly with co-founder attractiveness (r = 0.38, $p < 0.01$), entrepreneurial experience (r = –0.25, $p < 0.01$), and active co-founder search (r = 0.20, $p < 0.01$), supporting their inclusion as controls. Notably, entrepreneurial experience also correlates negatively with co-founder attractiveness ratings (r = –0.29, $p < 0.01$), suggesting that more experienced entrepreneurs are both more selective in their general evaluations of candidates and more conservative in the equity they are willing to offer. As expected, given their shared theoretical grounding (Cardon et al., 2013), the entrepreneurial passion dimensions are highly intercorrelated. To rule out multicollinearity concerns arising from this overlap, we examined variance inflation factors (VIFs). All variables fall below the conventional threshold of five (e.g., Antretter et al., 2020) with the highest VIF (2.89, entrepreneurial passion for founding) being within acceptable bounds.

Main Effects

We report the results of the HLM analysis for all main and interaction effects in Table 4.3. In support of the similarity attraction strategy, willingness to offer equity increases significantly with both similarity of venture vision (b = 1.863, $p < 0.01$, H1a) and similarity of personal values (b = 2.214, $p < 0.01$, H1b). Consistent with the resource acquisition strategy, willingness to offer equity also increases significantly with candidates' domain expertise (b = 2.562, $p < 0.01$, H2a) and network size (b = 1.508, $p < 0.01$, H2b).

Table 4.3 *HLM Regression Results*

DV: Willingness to offer equity	Coefficient	SE	*p*-Value	Hypothesis
Controls				
Decision-level (level 1)				
Equity demand	2.412***	0.355	0.000	
Co-founder attractiveness	4.001***	0.202	0.000	
Individual-level (level 2)				
Age	0.143**	0.065	0.028	
Gender	0.155	1.441	0.914	
Education	0.320	1.007	0.751	
Entrepreneurial experience	–0.188***	0.065	0.004	
Active co-founder search	0.662	0.413	0.109	
Venture failure experience	–0.917**	0.430	0.033	
Entrepreneurial passion for founding	–0.140	0.119	0.239	
Entrepreneurial passion for developing	0.045	0.098	0.649	
Entrepreneurial passion for inventing	0.066	0.092	0.474	
Harmonious passion	–1.670	1.566	0.286	
Obsessive passion	0.484	0.954	0.612	
Main effects (level 1)				
Similarity attraction				
Similarity of venture vision	1.863***	0.363	0.000	H1a
Similarity of personal values	2.214***	0.342	0.000	H1b
Resource seeking				
Domain expertise	2.562***	0.361	0.000	H2a
Network size	1.508***	0.274	0.000	H2b
Interaction effects (level 2 x 1)				
Passion for inventing and similarity attraction				
EP for inventing x similarity of venture vision	0.089**	0.043	0.038	H3a
EP for inventing x similarity of personal values	0.115**	0.055	0.035	H3b
Passion for inventing and resource seeking				
EP for inventing x domain expertise	0.113***	0.041	0.006	H4a
EP for inventing x network size	0.050	0.037	0.172	H4b
Passion for founding and similarity attraction				
EP for founding x similarity of venture vision	–0.113**	0.045	0.012	H5a
EP for founding x similarity of personal values	–0.124*	0.070	0.078	H5b
Passion for founding and resource seeking				
EP for founding x domain expertise	–0.047	0.042	0.267	H6a
EP for founding x network size	–0.021	0.040	0.603	H6b
Constant	19.148***	0.710	0.000	

Note. Main test sample based on 3,168 decisions (level 1, group-mean centered) from 198 entrepreneurs (level 2, grand-mean centered). Standard errors (SEs) are cluster robust at level 2. Random intercept random slope model. * $p<0.1$; ** $p < 0.05$; *** $p < 0.01$.

Among the controls, lead founders offer significantly less equity when they hold greater entrepreneurial experience (b = –0.188, $p < 0.01$) or have previously experienced venture failure (b = –0.917, $p < 0.05$) and offer significantly more equity to candidates who demand a larger equity share (b = 2.412, $p < 0.01$).

Interaction effects

To examine founder-level differences, we tested cross-level interactions between entrepreneurs' entrepreneurial passion and candidates' similarity and resource attributes. As hypothesized (H3), entrepreneurial passion for inventing positively moderates the relationship between both similarity attributes and willingness to offer equity: similarity of venture vision (b = 0.089, $p < 0.05$, H3a) and similarity of personal values (b = 0.115, $p < 0.05$, H3b). Entrepreneurs with higher passion for inventing thus grant disproportionately more equity to candidates who share their venture vision and personal values. Entrepreneurial passion for inventing also positively moderates the relationship between domain expertise and equity offered (b = 0.113, $p < 0.01$, H4a) but does not significantly moderate the relationship involving network size (b = 0.050, *n.s.*, H4b). Entrepreneurs passionate about inventing therefore reward not only interpersonal similarity but also one of the two resource attributes—domain expertise—with greater equity.

Entrepreneurial passion for founding shows the opposite pattern for similarity attributes. As hypothesized, it negatively moderates the relationship between both similarity of venture vision (b = –0.113, $p < 0.05$, H5a) and similarity of personal values (b = –0.124, $p < 0.1$, H5b) and willingness to offer equity, indicating that entrepreneurs with higher passion for founding discount interpersonal similarity when allocating equity. Although the estimated interaction effects are in the hypothesized negative direction, entrepreneurial passion for founding does not significantly moderate the relationship between equity offered and either domain expertise (b = –0.047, *n.s.*, H6a) or network size (b = –0.021, *n.s.*, H6b).

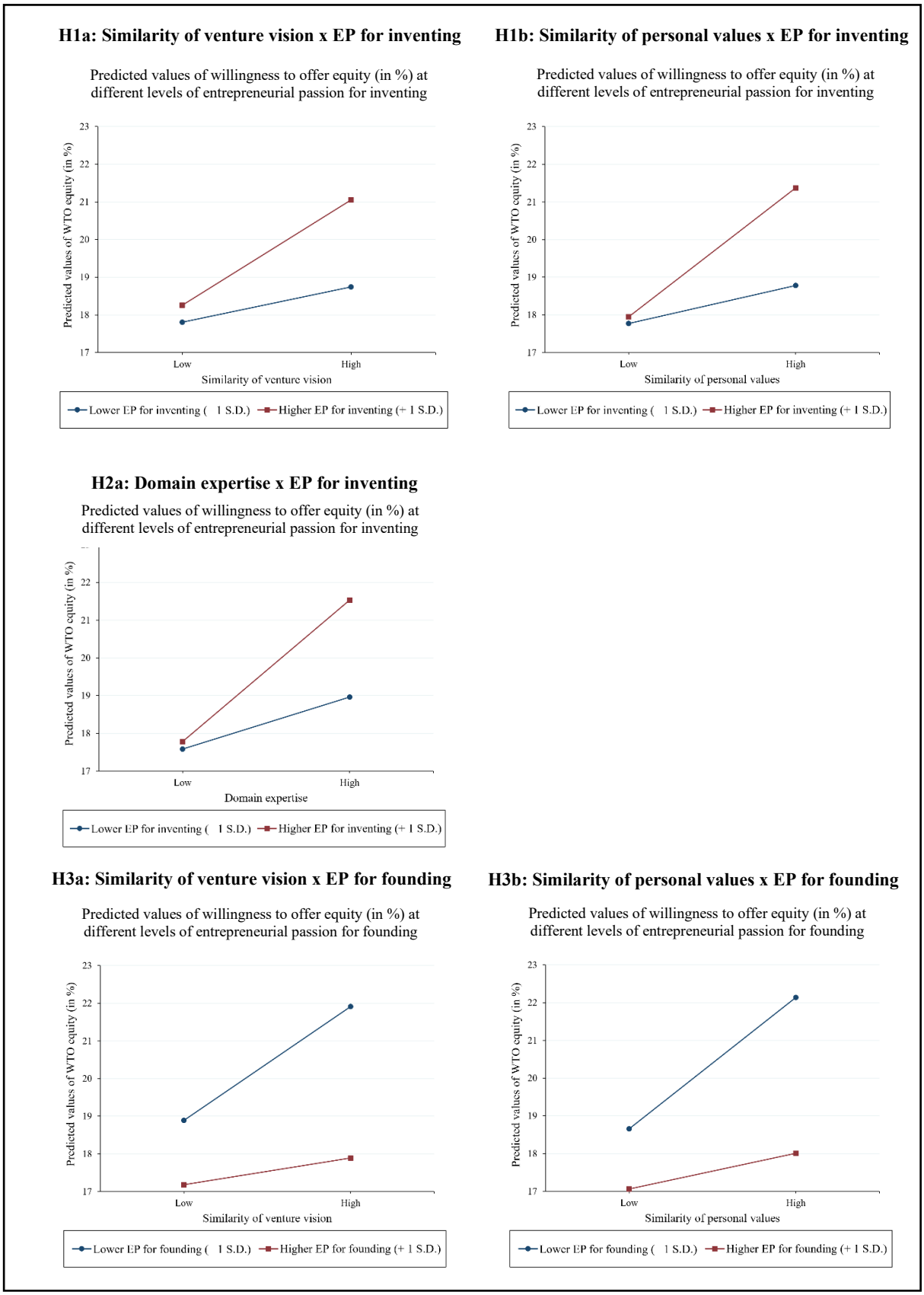
In sum, these results indicate that passion for inventing increases the equity value entrepreneurs assign to several co-founder attributes, particularly interpersonal similarity and domain expertise. Passion for founding, by contrast, attenuates the equity value of interpersonal similarity but does not significantly alter the valuation of resource-based attributes. These findings are consistent with our role-identity theorizing by showing that passion domains do not uniformly intensify equity offers but instead shape which candidate attributes founders translate into greater ownership value.

Post-hoc analyses: predicted values and average marginal effects

To facilitate interpretation of our cross-level interactions, we conducted two supplementary analyses. First, we calculated predicted values for lead founders' willingness to offer equity across lower and higher levels of co-founder attributes and entrepreneurial passion. Specifically, we compared lower entrepreneurial passion, defined as –1 S.D. lower than the sample mean, with higher entrepreneurial passion, defined as +1 S.D higher than the sample mean. Appendix 4.D reports the full set of predicted values, and Figure 4.2 visualizes the statistically significant interactions.

The predicted values show that entrepreneurial passion for inventing strengthens the extent to which lead founders translate identity-enabling co-founder attributes into equity offers. For similarity of venture vision, willingness to offer equity to candidates with higher similarity increases from 18.74% under lower passion for inventing to 21.06% under higher passion for inventing. This corresponds to an absolute increase of 2.31 percentage points, or a relative increase of 12.34%. In contrast, for candidates with lower similarity of venture vision, willingness to offer equity changes only slightly, from 17.81% to 18.26%, an absolute increase of 0.45 percentage points, or 2.54%. Thus, higher passion for inventing does not merely increase equity offers across the board; rather, it widens the ownership premium assigned to candidates who share the lead founder's venture vision.

Figure 4.2 *Visualizations of Predicted Values*



Note. We report the predicted values of the interaction terms found to be statistically significant in the main analysis (cf. Table 4.3). The entrepreneurial passion levels: low (– 1 S.D.), and high (+ 1 S.D.) represent the group-mean-centered values of entrepreneurial passion for inventing and founding in our sample.

A similar pattern emerges for similarity of personal values. For candidates with higher similarity of personal values, predicted willingness to offer equity rises from 18.78% under lower passion for inventing to 21.37% under higher passion for inventing. This equals an absolute increase of 2.59 percentage points, or a relative increase of 13.80%. For candidates with lower similarity of personal values, the corresponding change is much smaller, increasing from 17.77% to 17.95%, or by 0.17 percentage points in absolute terms and 0.97% in relative terms. Hence, entrepreneurs with higher passion for inventing assign a larger ownership premium to candidates whose personal values align with their own, while their equity offers to less similar candidates remain largely stable.

The same strengthening pattern is visible for domain expertise. For candidates with higher domain expertise, willingness to offer equity increases from 18.97% under lower passion for inventing to 21.53% under higher passion for inventing. This represents an absolute increase of 2.57 percentage points, or a relative increase of 13.53%. By contrast, for candidates with lower domain expertise, willingness to offer equity increases only from 17.59% to 17.79%, corresponding to an absolute increase of 0.20 percentage points, or 1.12%. These findings suggest that passion for inventing heightens entrepreneurs' sensitivity to attributes that can help advance, refine, and realize the venture idea.

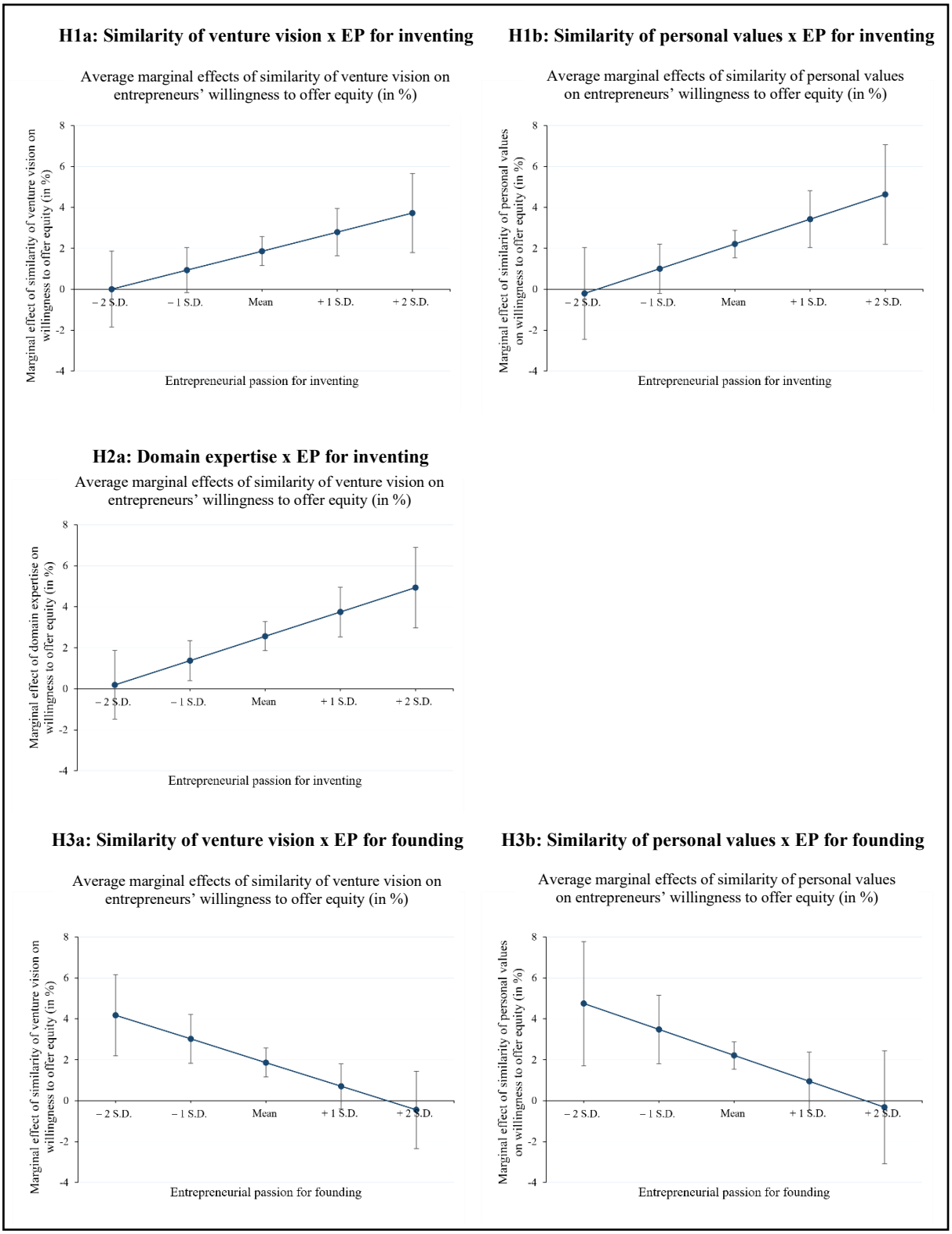
The pattern differs for entrepreneurial passion for founding. For similarity of venture vision, willingness to offer equity to candidates with higher similarity decreases from 21.91% under lower passion for founding to 17.89% under higher passion for founding. This corresponds to an absolute decrease of 4.02 percentage points, or a relative decrease of 18.34%. For candidates with lower similarity of venture vision, the decrease is smaller, moving from 18.89% to 17.18%, or by 1.71 percentage points in absolute terms and 9.03% in relative terms. Thus, higher passion for founding reduces the additional ownership value entrepreneurs assign to candidates who share their venture vision.

A comparable pattern appears for similarity of personal values. For candidates with higher similarity of personal values, predicted willingness to offer equity declines from 22.14% under lower passion for founding to 18.01% under higher passion for founding. This reflects an absolute decrease of 4.13 percentage points, or a relative decrease of 18.65%. For candidates with lower similarity of personal values, willingness to offer equity decreases from 18.66% to 17.06%, corresponding to an absolute decrease of 1.60 percentage points, or 8.55%. These results indicate that entrepreneurs with higher passion for founding become less willing to reward interpersonal similarity with larger equity offers, consistent with the idea that passion for founding may shift attention toward ownership preservation and founder-centric control.

Second, we estimated average marginal effects (AMEs) to examine how the effect of each co-founder attribute changes across different levels of entrepreneurial passion. This approach provides an intuitive interpretation of moderation effects because it expresses the effect of a focal attribute at specific values of the moderator. Appendix 4.E reports the AMEs, and Figure 4.3 visualizes the statistically significant results.

The AMEs reinforce the interpretation derived from the predicted values. For entrepreneurial passion for inventing, the marginal effect of similarity of venture vision increases from 0.93 percentage points under lower passion to 2.79 percentage points under higher passion. This represents an absolute increase in the attribute effect of 1.86 percentage points, or a relative increase of 199.36%. For similarity of personal values, the marginal effect increases from 1.01 to 3.42 percentage points, corresponding to an absolute increase of 2.42 percentage points, or 240.26%. For domain expertise, the marginal effect rises from 1.38 to 3.75 percentage points, an absolute increase of 2.37 percentage points, or 171.97%. These AMEs show that higher passion for inventing substantially increases the equity premium entrepreneurs assign to similarity and expertise, consistent with our theorizing that inventing passion amplifies the ownership value of attributes that enable opportunity development and idea refinement, and thus role-identity preservation of lead founders.

Figure 4.3 *Visualizations of Average Marginal Effects*



Note. We report the average marginal effects of the interaction terms found to be statistically significant in the main analysis (cf. Table 4.3). The entrepreneurial passion levels very low (– 2 S.D.), low (– 1 S.D.), mean, high (+ 1 S.D.), and very high (2 S.D.) represent the group-mean-centered values of entrepreneurial passion for inventing and founding in our sample. AMEs are plotted with 95% confidence intervals.

For passion for founding, the AMEs move in the opposite direction. The marginal effect of similarity of venture vision decreases from 3.02 percentage points under lower passion to 0.71 percentage points under higher passion. This reflects an absolute decrease of 2.31 percentage points, or a relative decrease of 76.59%. Similarly, the marginal effect of similarity of personal values decreases from 3.48 to 0.95 percentage points, an absolute decrease of 2.53 percentage points, or 72.77%. Moreover, at higher levels of passion for founding, these marginal effects are no longer statistically significant. This indicates that higher passion for founding attenuates the extent to which interpersonal similarity translates into larger equity offers, consistent with our theorizing that similarity may become less identity-enabling and more identity-constraining for founders who derive identity meaning from establishing and shaping the venture.

In sum, the predicted values and AMEs show that entrepreneurial passion affects equity offers in both economically and theoretically meaningful ways. The absolute changes indicate how many additional percentage points of ownership entrepreneurs are willing to offer, whereas the relative changes show how strongly these offers shift compared with the baseline at lower passion levels. This distinction is important: a change from 18.74% to 21.06% is not only a 12.34% relative increase, but also an additional 2.31 percentage points of venture ownership. In equity decisions, such absolute differences are substantively meaningful because they directly affect founder ownership, control, and the prospective co-founder's stake in future venture value. Overall, these post-hoc analyses illustrate that passion domains do not uniformly intensify or reduce equity offers. Rather, they shape which candidate attributes lead founders translate into larger ownership offers, consistent with our role-identity account of passion-based interpretations of identity enablement and identity constraint.

Robustness checks

We conducted three additional analyses to assess whether our results hold under alternative model specifications (see Table 4.4). First, in line with best practices (Bernerth & Aguinis, 2016), we re-estimated our main model excluding the level-2 (individual-level) controls to rule out the possibility that our main and interaction effects are artifacts of their inclusion (see Model 1). Second, we estimated an OLS model with entrepreneur fixed effects and entrepreneur-clustered standard errors on the main-test sample, providing a complementary test of our results that is robust to unobserved, time-invariant entrepreneur heterogeneity. Notably, time-invariant level-2 controls and predictors drop from this specification due to collinearity with the fixed effects (see Model 2). Third, following recent entrepreneurship research pooling primary and replicated samples (e.g., Ademi et al., 2023), we estimated our model on the pooled sample combining the main-test observations (3,168 decisions) and retest observations (1,584 decisions), yielding 4,752 decisions from 198 entrepreneurs (see Model 3).

Across all three specifications, our main effects for similarity attraction and resource seeking remain positive, significant, and consistent in magnitude with our primary model. Likewise, the cross-level interaction effects replicate closely. Entrepreneurial passion for inventing continues to positively moderate the relationship between both similarity attributes and equity offered, as well as the relationship involving domain expertise, while its moderation of network size remains non-significant throughout. Entrepreneurial passion for founding continues to negatively moderate both similarity attributes across all three models, while its moderation of the resource attributes remains stable throughout. Taken together, these robustness checks indicate that our findings are not driven by the inclusion of certain level-2 controls, by unobserved heterogeneity across entrepreneurs, or by the specific sample (main test versus pooled) used for estimation.

Table 4.4 *Robustness Tests*

DV: Willingness to offer equity	**Model 1** Excl. level 2 controls	**Model 2** OLS regression	**Model 3** Pooled model
Controls			
Decision-level (level 1)			
Equity demand	2.412***	2.404***	2.414***
Co-founder attractiveness	4.010***	4.292***	3.930***
Individual-level (level 2)			
Age			0.137
Gender			0.199
Education			0.439
Entrepreneurial experience			–0.186***
Active co-founder search			0.624
Venture failure experience			–0.894**
Entrepreneurial passion for founding			–0.139
Entrepreneurial passion for developing			0.053
Entrepreneurial passion for inventing			0.066
Harmonious passion			–1.605
Obsessive passion			0.448
Main effects (level 1)			
Similarity attraction			
Similarity of venture vision	1.851***	1.489***	2.148***
Similarity of personal values	2.201***	1.804***	2.429***
Resource seeking			
Domain expertise	2.547***	2.138***	2.715***
Network size	1.498***	1.218***	1.587***
Interaction effects (level 2 x 1)			
Passion for inventing and similarity attraction			
EP for inventing x similarity of venture vision	0.089**	0.087*	0.080**
EP for inventing x similarity of personal values	0.115**	0.114**	0.110**
Passion for inventing and resource seeking			
EP for inventing x domain expertise	0.113***	0.107**	0.095**
EP for inventing x network size	0.050	0.046	0.053
Passion for founding and similarity attraction			
EP for founding x similarity of venture vision	–0.113**	–0.118**	–0.091**
EP for founding x similarity of personal values	–0.124*	–0.125*	–0.117*
Passion for founding and resource seeking			
EP for founding x domain expertise	–0.047	–0.043	–0.024
EP for founding x network size	–0.021	–0.021	–0.057
Observations (no. of participants)	3,168 (198)	3,168 (198)	4,752 (198)
Constant	18.967***	17.061***	18.942***

Note. Model 1 reflects HLM without individual level controls. Model 2 estimates an OLS with respondent fixed effects and clustered standard errors to assess omitted-variable bias. Time-invariant person-level controls drop due to collinearity, indicating that key findings are not driven by unobserved individual heterogeneity. Model 3 tests the pooled model combining the main and retest sample. *$p<0.1$; **$p < 0.05$; ***$p < 0.01$.

Discussion

This work examines how lead founders assign equity value to prospective co-founders. Building on interpersonal similarity attraction, resource seeking, and entrepreneurial passion as role-identity lens, we argue that equity offers are shaped not only by what candidates bring to the venture, but also by how lead founders interpret those attributes through passion-based founder role identities. Our findings support the baseline argument that lead founders offer more equity to candidates who share their venture vision and personal values and to candidates who bring stronger domain expertise and larger networks. More importantly, we show that these equity premiums are contingent on entrepreneurial passion. Passion for inventing amplifies the equity value of interpersonal similarity and domain expertise, whereas passion for founding attenuates the equity value of interpersonal similarity. At the same time, passion for inventing does not significantly strengthen the equity value of network size, and passion for founding does not significantly alter the equity value of resource-based attributes. Our findings suggest that entrepreneurial passion does not uniformly increase or decrease equity offers, but rather that passion domains shape which candidate attributes become ownership-worthy in light of the entrepreneurial role the lead founder seeks to enact.

Theoretical implications

A primary contribution of our work is to shift attention from the consequences of realized equity splits to the decision process through which lead founders assign ownership value to prospective co-founders. Prior research has shown that founder equity allocation shapes subsequent effort, team dynamics and identification, innovation, financing outcomes, and venture performance (Bitler et al., 2005; Breugst et al., 2015; Hellmann & Wasserman, 2017; Mueller & Hennicke, 2024; Mueller et al., 2026; Wasserman, 2017; Weissenböck et al., 2024). We extend this literature by opening the black box of equity allocation and examining how equity offers are constructed before realized ownership structures shape subsequent venture trajectories (Hellmann & Wasserman, 2017).

This shift is theoretically important because the "first deal" is made before the venture's future value and each founder's eventual contribution are known (Hellmann & Wasserman, 2017). Under such uncertainty, founders must anticipate what a prospective co-founder may contribute, how the relationship may unfold, and how shared ownership may affect influence and control (Wasserman 2012, 2017). Our findings show that interpersonal similarity and candidate resources serve as bases for such ownership valuation, but that their equity value is filtered through the founder's passion-based role identity. By showing how candidate attributes and founder role identity jointly shape equity offers, our study positions equity allocation as a formative mechanism through which founders construct the ownership architecture of new ventures. This perspective underscores why equity allocation carries substantial personal stakes for founders: ownership determines control, influence and personal identity (Crosina et al., 2024; Hoang & Gimeno, 2010; Weissenböck et al., 2024), but also exposure to dilution and the distribution of entrepreneurial wealth if the venture succeeds (Åstebro, 2012; Hall & Woodward, 2010; Hellmann & Wasserman, 2017; Walker & Dowd, 2025; Wasserman, 2012, 2017). It also complements outcome-focused equity research by suggesting that later team dynamics, conflict, and venture outcomes may partly reflect the assumptions and identity-laden valuations embedded in the initial equity decision.

A second contribution of our work is to entrepreneurial passion and identity research. Entrepreneurial passion theory conceptualizes passion as intense positive feelings for entrepreneurial activities that are central to the entrepreneur's self-identity (Cardon et al., 2009, 2013). This role-based definition implies that passion should shape not only how entrepreneurs act, but also how they interpret situations that bear on identity-relevant entrepreneurial activities. Prior research has linked passion to motivation, persistence, creativity, opportunity recognition, effort, entrepreneurial effectiveness, and venture outcomes (e.g., Breugst et al., 2012; Murnieks et al., 2014, 2020; Newman et al., 2021; Naumann et al., 2026; Riar et al., 2025). Founder identity research similarly shows that entrepreneurs' self-understandings shape

how they interpret opportunities, organize ventures, and imprint emerging firms (Fauchart & Gruber, 2011; Powell & Baker, 2017; Radu-Lefebvre et al., 2021; Shane et al., 2020; Wagenschwanz, 2021). We connect these streams by showing that passion functions as a founder role-identity lens in equity allocation. In doing so, we respond to calls to examine how founder identity translates into specific organizing behaviors through which ventures are structured (Crosina et al., 2024; Gruber & MacMillan, 2017; Radu-Lefebvre et al., 2021), and extend passion research beyond entrepreneurs' own effort and behavior to their evaluation of others' ownership claims.

These results also advance a more domain- and identity-sensitive understanding of entrepreneurial passion. Recent reviews and meta-analyses have called for more nuanced theorizing of passion domains and the mechanisms through which passion affects entrepreneurial outcomes (Newman et al., 2021; Naumann et al., 2026; Riar et al., 2025; Zhao & Liu, 2023). Our study responds by showing that passion for inventing and passion for founding have different implications for the ownership value of the same candidate attributes. Passion for inventing increases the equity value of interpersonal similarity and domain expertise, consistent with the idea that these attributes support the enactment of the inventor role identity. Passion for founding decreases the equity value of interpersonal similarity, consistent with the idea that highly similar candidates may become co-claimants to the venture's direction, values, and founding identity, thereby constraining the founder's ability to enact the founder role as the venture's central organizer. This finding extends the founder-control dilemma into the identity domain. Whereas prior work emphasizes that founders often trade off resource acquisition against control preservation (Wasserman, 2012, 2017), our results suggest that a parallel tension can arise around interpersonal similarity: candidates who share the founder's vision and values may reduce coordination costs, but they may also become legitimate co-interpreters of the venture's purpose and direction. Our findings refine role-based passion theory by showing that passion domains can amplify, attenuate, or leave unchanged the

ownership value of candidate attributes depending on whether those attributes enable or constrain the founder's role identity.

A third contribution of our work is to new venture team formation research by extending attention from co-founder selection to co-founder ownership. Research on entrepreneurial team formation has shown that founders rely on interpersonal similarity and resource seeking when deciding with whom to build a venture (Forbes et al., 2006; Gray et al., 2024a, 2024b; Lazar et al., 2020, 2022; Shah et al., 2019). We build on this literature by showing that these same logics also shape how much of the venture a prospective co-founder is perceived to deserve. This distinction matters because joining a founding team and receiving ownership are related but not equivalent outcomes. Equity grants a candidate not only a place in the team, but also a claim to future value, influence, and recognition. Our findings therefore extend team formation research by showing that candidate attributes are not only selection criteria but also bases for ownership valuation. Moreover, by demonstrating that these valuations vary with the lead founder's passion, we show that new venture team formation is not only a matter of candidate fit or resources, but also of founder-sided role identity. Equity allocation thus provides a bridge between co-founder evaluation, founder identity, and the ownership architecture of new ventures.

Practical implications

Our findings offer practical implications for lead founders and prospective co-founders involved in early equity allocation. Most importantly, they suggest that equity offers are not only assessments of candidate quality, but also role-identity consistent evaluations about what kind of co-founder appears ownership-worthy. Lead founders may believe that they are objectively rewarding a candidate's similarity, expertise, or network resources. Yet our results indicate that these attributes are valued differently depending on the entrepreneur's passion. Entrepreneurs with stronger passion for inventing appear more willing to grant equity to candidates whose expertise can help develop the venture idea, whereas entrepreneurs with

stronger passion for founding appear less willing to reward even highly similar candidates with larger ownership stakes. This suggests that lead founders should reflect on whether an equity offer captures the candidate's expected contribution, the founder's own identity concerns, or both.

The magnitude of these differences is also practically meaningful. Recent Carta data show that the median seed post-money startup valuation reached approximately $21 million in the 12-month period from Q2 2025 through Q1 2026 (Neville, 2026). At that valuation, one percentage point of equity corresponds to roughly $210,000 in implied ownership value. In our post-hoc analyses, entrepreneurs with higher entrepreneurial passion for inventing offered candidates with higher domain expertise 21.53% equity, compared with 18.97% among entrepreneurs with lower entrepreneurial passion for inventing. This 2.57 percentage-point difference corresponds to approximately $539,700 in implied ownership value. Conversely, entrepreneurs with higher entrepreneurial passion for founding offered candidates with higher similarity of venture vision 17.89% equity, compared with 21.91% among entrepreneurs with lower entrepreneurial passion for founding. This 4.02 percentage-point difference corresponds to approximately $844,200. These figures illustrate that passion-contingent differences in equity allocation can translate into substantial differences in ownership value, incentives, control, and future wealth distribution.

Accordingly, lead founders may benefit from separating candidate evaluation from equity allocation more explicitly. Similarity, expertise, networks, and equity demand are all relevant inputs into co-founder evaluation, but they should not automatically translate into ownership offers without reflection on expected contribution, role clarity, and control implications. Prospective co-founders, in turn, may benefit from recognizing that equity offers reflect not only their own attributes, but also how the lead founder interprets those attributes through their entrepreneurial role-identity. Early equity negotiations should therefore involve explicit discussion of roles, influence, and expected future contributions. By translating our

effect sizes into ownership value, our study also responds to calls for research to communicate not only statistical significance, but also substantive and practical significance (van Heerde et al., 2021).

Limitations and future research

Although our study has several strengths, including an experimental design that allows us to isolate the causal effects of prospective co-founder attributes on equity offers, it also has limitations, which can serve as a basis for future research. First, although conjoint experiments are well suited for decomposing decision-making processes and estimating the causal effects of experimentally varied attributes (Shepherd & Zacharakis, 2018), our candidate profiles were hypothetical. We sought to strengthen realism through face-validity interviews and a detailed co-founder scenario, and acknowledge limitations in experimentally operationalizing evolving information, social influence, or emotional investment. Based on our decision attributes, future research could test bidirectional evaluations of lead founders and co-founders by conducting field experiments at co-founder matching events or retrospectively analyzing the datasets of entrepreneurial matchmakers, such as Y Combinator (Gray et al., 2024a).

Second, and relatedly our study presumes a lead-co-founder formation dynamic, in which the lead founder evaluates and offers equity to a potential co-founder. While this pattern is common in early venture formation (Shah et al., 2019; Walker & Dowd, 2025), not all founding teams emerge through this process. Moreover, research shows that the structure of the initial founding team shapes subsequent organizational arrangements (Beckman & Burton, 2008; Brattström, 2024) and that early team members' behavior impact venture development over time (De Cuyper et al., 2020). Hence, future research could examine how our theorized mechanisms operate in a team setting, potentially examining team entrepreneurial passion (Cardon et al., 2017; Santos & Cardon, 2019) or collective identities (Powell & Baker, 2017), where two or more founders jointly evaluate a prospective co-founder.

Finally, our study does not examine downstream consequences of equity offers. Although we show how candidate attributes and founder passion shape equity offer decisions, we do not observe whether these decisions trigger renegotiations, how they translate into realized equity allocation or whether they improve team functioning, reduce conflict, or enhance venture performance. While research suggests that passion congruence may facilitate formation (Fu et al., 2022), and enhance team performance (Uy et al., 2021), future studies could examine whether passion-shaped equity splits produce better founder-co-founder fit or whether they create blind spots that later generate conflict, renegotiation, or even venture exit.

Conclusion

Equity allocation is among the most consequential decisions in new venture creation. This study shows that lead founders systematically assign more equity to co-founder candidates who are interpersonally similar and resourceful, but that these effects depend on the lead founder's passion identity. Our findings suggest that entrepreneurial passion shapes equity offers influencing how lead founders interpret the role-identity-relevant meaning of co-founder candidates' characteristics. By theorizing equity allocation as an identity-laden decision, this study advances understanding of founder equity, entrepreneurial team formation, and entrepreneurial passion in the earliest stages of venture creation.

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Chapter 5: General Discussion

"The question is not what you look at, but what you see."

— Henry David Thoreau (August 5, 1851)[6]

Exactly 175 years to the day before this dissertation was submitted, Henry David Thoreau recorded this observation in his journal. Its enduring relevance lies in the distinction it draws between what individuals encounter and how they interpret it. Early venture formation depends not only on the situations founders face, but also on what they see in them. Paths, partners, and ownership do not carry identical meaning for all individuals. The same entrepreneurial path may appear desirable to one person and unattractive to another; the same prospective co-founder may be seen as a valuable partner, or a mismatch; and perceived as ownership worthy or not. Early venture formation is therefore not only a structural organizing process, but also an interpretive process in which founders assign meaning to what the venture could become, who may become part of it, and how claims to its future should be distributed.

This dissertation set out to advance a founder's lens perspective on early venture formation. Its central premise is that founder dispositions and role identities matter not simply because they make individuals more or less likely to engage in entrepreneurship, but because they shape how formative venture-building situations are interpreted. In the earliest stages of organizing, many consequential matters remain unsettled: entrepreneurial paths are still imagined, founding relationships are still forming, and ownership claims are still negotiable. These matters are not determined by objective conditions alone. They become meaningful through the founder's lens.

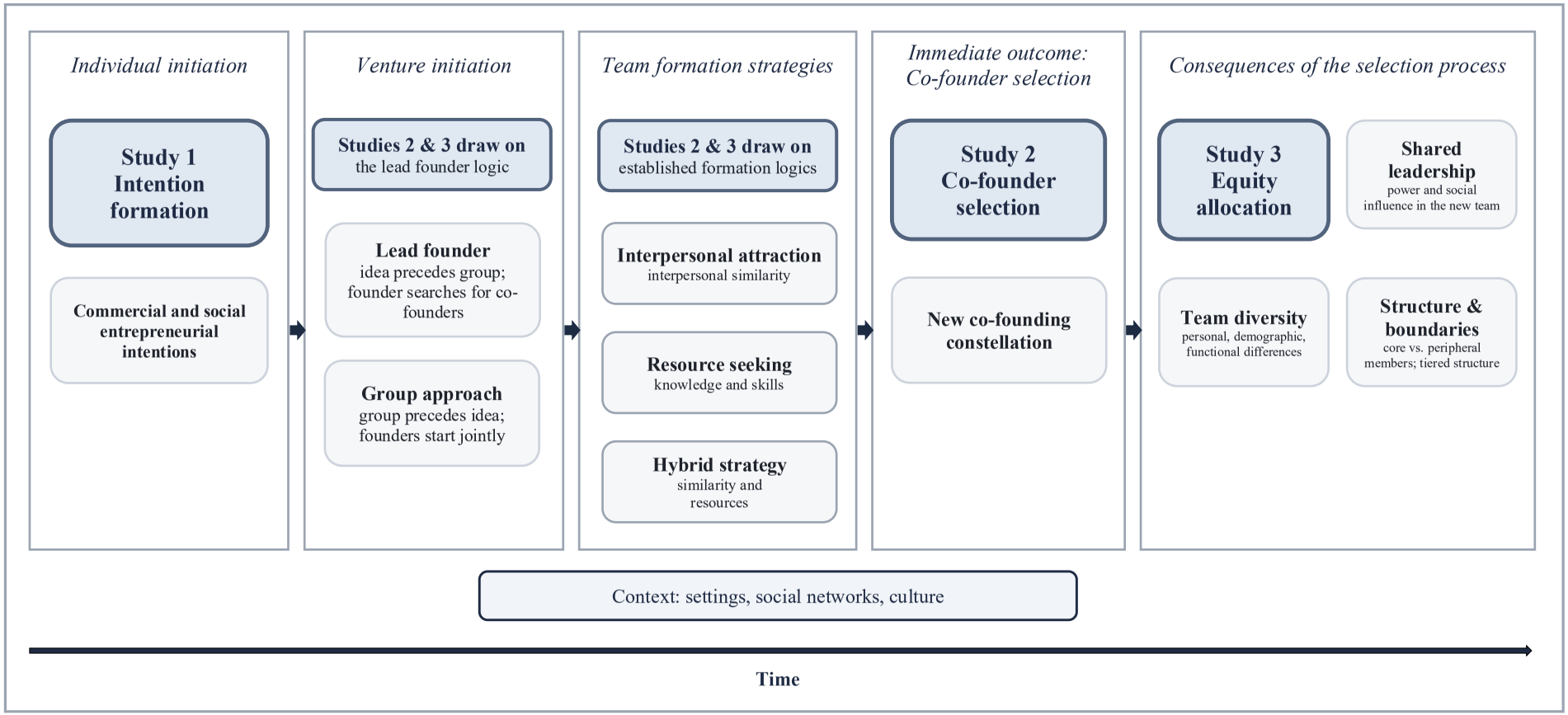
[6] The quotation originates from Henry David Thoreau's journal entry of August 5, 1851, reproduced in the edition cited as Thoreau (2019).

This perspective complements research on new venture creation and entrepreneurial team formation by shifting attention to the interpretive role of founder characteristics. Prior research has shown that new ventures emerge through uncertain and provisional organizing processes (Klotz et al., 2014; McMullen & Shepherd, 2006; Shepherd et al., 2021) and that entrepreneurial team formation unfolds dynamically through team origins, formation strategies, and consequences for the incipient team (Lazar et al., 2020). Building on this work, this dissertation asked how founder characteristics shape the evaluations through which early venture formation become increasingly concrete. Across the three empirical studies, founder characteristics enter early venture formation not as broad predictors of entrepreneurial activity, but as lenses through which entrepreneurial paths, prospective partners, and ownership claims are evaluated.

Lazar et al.'s (2020) framework provides a useful anchor for positioning this contribution. Their model conceptualizes entrepreneurial team formation as a process that begins with the origins of the founding team, proceeds through interpersonal attraction and resource-seeking strategies, and produces consequences for the emerging team. Figure 5.1 builds on this logic but situates the dissertation within a broader early venture formation process. It highlights that the founder's lens matters before team formation, as entrepreneurial intentions take shape; during team formation, as prospective co-founders are evaluated; and after selection, as ownership is allocated within the emerging venture.

The remainder of this final chapter draws the three empirical studies together. It summarizes their key findings, develops their joint theoretical contributions, outlines strengths, limitations, as well as future research directions, and discusses practical implications for founders and those who support them.

Figure 5.1 *Position of the Dissertation Within the Early Venture Formation Process*



Intentions:
Ajzen (1991); Bacq & Alt (2018); Bird (1988); Brownell et al. (2021); Donaldson (2019); Hockerts (2017); Krueger et al. (2000); Mair & Martí (2006); Thompson (2009); Virick et al. (2015).

Venture initiation:
Forbes et al. (2006); Grossman et al. (2012); Kamm & Nurick (1993); Kamm et al. (1990); Shah et al. (2019); Timmons (1975); Vohora et al. (2004).

Formation & selection:
Davidsson & Honig (2003); Discua Cruz et al. (2013); Forbes et al. (2006); Francis & Sandberg (2000); Fu et al. (2022); Gray et al. (2024a, 2024b); Lazar et al. (2022); Mosey & Wright (2007).

Context:
Aldrich & Kim (2007); Discua Cruz et al. (2013); Francis & Sandberg (2000); Schjoedt et al. (2013); Zellmer-Bruhn et al. (2021).

Consequences & ownership:
Aldrich & Kim (2007); Breugst et al. (2015); Cardon et al. (2009, 2013); Ensley et al. (2000); Hellmann & Wasserman (2017); Hoang & Gimeno (2010); Mueller et al. (2026); Mueller & Hennicke (2024); Parker (2009); Ruef et al. (2003); Wasserman (2017); Weissenböck et al. (2024).

Note. This figure builds on Lazar et al.'s (2020) integrative model of entrepreneurial team formation and adapts its process logic to position the three studies of this dissertation within the broader early venture formation process. While Lazar et al. (2020) focus on the origins, formation strategies, and consequences of entrepreneurial team formation, this figure extends that logic by locating entrepreneurial intention formation upstream of team formation and equity allocation downstream of co-founder selection.

Summary of Findings

The three empirical studies examine early venture formation and show how founder interpretation operates across three formative processes:

The first study examines how individual dispositions shape the earliest formation process considered in this dissertation: entrepreneurial intention formation. Building on social exchange theory (Blau, 1964; Emerson, 1976), it starts from the premise that entrepreneurial intentions are anticipatory evaluations of future entrepreneurial domains and the social exchange environments attached to them. The study distinguishes commercial from social entrepreneurial intentions and tests the relationships between Machiavellianism, narcissism, and psychopathy and both intention domains through a meta-analysis of 48 independent samples with 24,607 participants. The findings show that all three dark triad traits are positively related to commercial entrepreneurial intentions. For social entrepreneurial intentions, however, the pattern diverges: Machiavellianism and psychopathy are negatively related to social entrepreneurial intentions, whereas narcissism remains positively related. These findings indicate that entrepreneurial intention formation is domain-sensitive. Thus, the study challenges the idea that dark triad traits do simply make individuals more or less attracted to entrepreneurship but instead demonstrates that the dispositions sort differently across entrepreneurial domains, depending on the social exchange conditions individuals anticipate.

The second study examines how founder dispositions shape the social formation of the venture through co-founder selection. Drawing on marriage market theory (Becker, 1973, 1974; Chiappori, 2020), it conceptualizes co-founder selection as a judgment process in which lead founders weigh social-emotional, instrumental, and distributive considerations. In a conjoint experiment with 206 U.S. entrepreneurs and 3,296 co-founder selection decisions, interpersonal attraction and resource contribution increase willingness to select a co-founder, whereas higher equity demand decreases it. However, the dark triad changes how these attributes are evaluated. Lead founders higher in the dark triad discount interpersonal attraction and show stronger

aversion to equity dilution. These findings suggest that founder dispositions can alter the cooperative logic of co-founder selection by shifting attention from joint value creation toward personal utility and control.

The third study examines how founder role identities shape the ownership foundation of the venture. Drawing on entrepreneurial passion as a role-identity lens (Cardon et al., 2009, 2013), it argues that passion for inventing and passion for founding influence how founders interpret candidate attributes as ownership-worthy. In a metric conjoint experiment with 198 U.S. entrepreneurs and 3,168 equity-offer decisions, candidates receive higher equity offers when they share the founder's venture vision and personal values and when they bring stronger domain expertise and larger networks. Yet these effects are contingent on passion domain. Entrepreneurial passion for inventing amplifies the ownership value of interpersonal similarity and domain expertise, whereas entrepreneurial passion for founding attenuates the ownership value of interpersonal similarity. These findings show that equity allocation is not merely a response to candidate attributes, but a role-identity-contingent decision about who receives a claim to the venture's future.

Taken together, the three studies show that early venture formation unfolds through founder interpretation across increasingly concrete formation processes. Dispositions shape which entrepreneurial domains appear attractive, and which prospective co-founders appear desirable, while founder role identities shape which contributions are translated into ownership claims. The findings therefore provide the empirical basis for this dissertation's broader argument: the individual, social, and ownership foundations of new ventures begin to take form through the founder's lens.

Theoretical Implications

The three empirical studies differ in theoretical lens, empirical setting, and methodological design. Yet, taken together, they yield four theoretical implications for entrepreneurship research. First, they specify the founder's lens as an interpretive mechanism in early venture

formation. Second, they position early venture formation as a process of progressive concretization. Third, they show that formative venture-building decisions involve evaluations of paths, partners, and ownership. Fourth, they qualify founder-centered accounts of entrepreneurship by showing the ambivalence of the founder's lens.

The first theoretical implication of this dissertation is that it advances a founder's lens perspective on early venture formation. Entrepreneurship research has long recognized that founders are central to the emergence of new ventures. Founders identify and evaluate opportunities, mobilize resources, form teams, and bring new organizations into existence (Baron, 2007; Gartner, 1985; McMullen & Shepherd, 2006; Shane & Venkataraman, 2000). This dissertation builds on this founder-centered view but specifies a more precise mechanism: founders shape early venture formation because they interpret the formative conditions under which ventures begin.

The contribution lies in treating founder characteristics not merely as antecedents of entrepreneurial action, but as lenses through which specific formation situations are evaluated. This perspective moves beyond two narrower views. First, it moves beyond a purely structural view in which early venture formation is explained primarily through opportunities, resources, markets, or institutions. These conditions matter, but they do not determine venture formation by themselves. They become consequential through founders who interpret them, prioritize among them, and translate them into action. Second, the founder's lens perspective moves beyond a generic individual-differences view in which founder traits are treated mainly as broad predictors of entrepreneurial entry, behavior, or performance. Instead, this dissertation positions founder characteristics as interpretive lenses that shape specific formation processes.

This theoretical move builds on research showing that entrepreneurs differ in how they interpret opportunities, enact founder identities, and experience entrepreneurial roles (Cardon et al., 2009; Fauchart & Gruber, 2011; Haynie et al., 2009; Radu-Lefebvre et al., 2021; Wood & Williams, 2014). The dissertation extends this work by showing that founder characteristics

matter not only for opportunity-related cognition or entrepreneurial motivation, but also for the broader formation of a venture's individual, social, and ownership foundations. The broader theoretical pattern is that founder characteristics shape how formative situations acquire meaning before they become stabilized in organizational structures.

This matters because early venture formation occurs while organizational boundaries, relationships, and ownership arrangements remain malleable. Founder interpretation can therefore become embedded in the emerging venture rather than merely respond to it. Although this contribution is situated in entrepreneurship research, it also speaks to broader management conversations on organizational emergence and imprinting by showing how founder interpretations of paths, partners, and ownership can become embedded in the emerging social and ownership structures of new ventures before these structures are fully formalized (cf. Alexy et al., 2021; Brattström, 2024; Snihur & Zott, 2020).

A second theoretical implication of this dissertation is that early venture formation can be understood as a process of progressive concretization. Building on process-oriented views of venture emergence and entrepreneurial team formation (Gartner, 1985; Katz & Gartner, 1988; Lazar et al., 2020; Shepherd et al., 2021), the dissertation shows how ventures become increasingly specified through connected formation moments. It begins upstream, with entrepreneurial intention formation, continues through the evaluation of prospective co-founders, and extends downstream into equity allocation as an early ownership decision.

This perspective extends entrepreneurial team formation research by positioning team formation within a broader early venture formation sequence. Lazar et al. (2020) conceptualize entrepreneurial team formation as a dynamic process that unfolds from team origins, through interpersonal attraction and resource-seeking strategies, to consequences for the emerging team. Because this positioning has already been introduced in Section 5.1, the theoretical implication here is more specific: team formation is not only a process in itself, but also a hinge between prior individual orientation and subsequent ownership architecture. Co-founder selection is

therefore not an isolated moment. It is situated between an upstream process through which entrepreneurship becomes personally desirable and a downstream process through which selected collaborators receive ownership standing.

The value of this implication lies in showing that the foundations of a venture are not established at once. They emerge through linked formation processes that become progressively more concrete. Entrepreneurial intention formation specifies a possible entrepreneurial path. Co-founder selection specifies the social core of the venture. Equity allocation specifies the distribution of ownership within that core. By connecting these processes, the dissertation develops a more integrated view of how early venture formation unfolds from individual orientation, to social formation, to ownership architecture through the founder's lens.

This process view also clarifies why founder interpretation matters across formation moments. At each point, founders evaluate something before its consequences can be fully known. The object of evaluation becomes progressively more concrete: from a possible entrepreneurial future, to a prospective founding relationship, to a specific ownership allocation. Early venture formation is therefore not a single founding event, nor merely a sequence of independent decisions. It is a process through which entrepreneurial possibilities become increasingly concrete through founder interpretation.

A third theoretical implication of this dissertation is that early venture formation can be understood as the evaluation of paths, partners, and ownership. Whereas the previous implication positions the dissertation along a broader formation process, this implication specifies the evaluative logic through which that process unfolds. Founders and prospective founders must evaluate which entrepreneurial path appears attractive, which prospective partner appears suitable, and which contribution deserves a claim to the venture's future. These evaluations are not neutral assessments of objective attributes. They are socially and identity-contingent judgments shaped by anticipated exchange, interpersonal utility, control, and founder role identity.

This implication builds directly on the idea that entrepreneurial team formation benefits from multiple disciplinary lenses, including sociology, economics, and psychology (Lazar et al., 2020). The dissertation extends this insight from team formation to early venture formation more broadly. Social exchange theory foregrounds the sociological logic of anticipated exchange and relational expectations (Blau, 1964; Emerson, 1976). Marriage market theory foregrounds the economic logic of partner evaluation, utility, and distributive costs (Becker, 1973, 1974; Chiappori, 2020). Entrepreneurial passion and role identity theory foreground the psychological logic through which founders interpret candidate contributions as more or less ownership-worthy (Cardon et al., 2009, 2013; Hoang & Gimeno, 2010). Together, these perspectives show that the founder's lens operates through recurring evaluations of fit, utility, and legitimacy.

This perspective contributes to entrepreneurship research by reframing early formation decisions as meaning-making processes. Entrepreneurial intention formation is not only about whether entrepreneurship is attractive, but about which entrepreneurial path appears fitting for the individual. Co-founder selection is not only about whether a candidate has useful resources, but about whether that candidate is experienced as a desirable partner under conditions of interdependence. Equity allocation is not only about estimating the value of candidate contributions but about deciding whether and how those contributions should translate into ownership. Across these settings, founders assign meaning to paths, partners, and ownership before the venture's social and ownership architecture is settled.

A fourth theoretical implication of this dissertation is that the founder's lens is inherently ambivalent. Much entrepreneurship research has foregrounded founders as generative actors who identify opportunities, mobilize resources, form teams, and bring new organizations into existence (Baron, 2007; Gartner, 1985; Klotz et al., 2014; Schumpeter, 1934; Shane & Venkataraman, 2000). This dissertation does not challenge that view. Instead, it qualifies it by showing that the same founder characteristics that help initiate venture formation may also

shape it in uneven and potentially problematic ways. Founder dispositions and role identities can enable interpretation, commitment, and direction, but they can also introduce distortion, exclusion, conflict, and inequity into the earliest stages of organizing.

This ambivalence is visible across the three studies. At the level of entrepreneurial intention formation, darker dispositions may orient individuals toward entrepreneurial domains that appear compatible with autonomy, status, or unilateral value capture, while reducing the appeal of domains that require stronger reciprocity and other-oriented value creation. At the level of co-founder selection, darker dispositions may narrow the founding core by discounting interpersonal fit and heightening sensitivity to ownership dilution. Candidates may therefore be evaluated not only in terms of their potential contribution to joint value creation, but also in terms of how strongly they threaten personal control. At the level of equity allocation, entrepreneurial passion may energize commitment while also making ownership decisions contingent on the founder's role identity. Contributions that affirm the founder's preferred entrepreneurial role may be privileged, whereas other contributions may be undervalued despite their relevance for the venture.

This implication contributes to a more balanced understanding of the human foundations of early venture formation. Founder characteristics can help individuals imagine entrepreneurial futures, evaluate collaborators, and protect the venture's emerging direction. Yet they may also narrow what founders perceive as attractive, trustworthy, valuable, or legitimate. Such early interpretations matter because founding conditions can imprint organizations in lasting ways, shaping subsequent structures, routines, values, and power relations (Baron et al., 1999; Boeker, 1988, 1989; Marquis & Tilcsik, 2013). Thus, founders are consequential not only because they initiate ventures, but because their interpretations can become embedded in the social and ownership architecture of the organizations they create.

Strengths, Limitations, and Future Research Directions

This dissertation has several strengths that support its contribution to entrepreneurship research. Methodologically, it combines meta-analytic evidence with experimental designs. This combination is useful because early venture formation is difficult to observe directly: many formative evaluations occur before ventures are formally established, before founding team boundaries are settled, and before outcomes become visible. Meta-analytic evidence helps consolidate fragmented findings across prior studies, while conjoint experiments are well suited to isolating founder decision policies under controlled conditions (Grégoire et al., 2019; Lohrke et al., 2010; Shepherd & Zacharakis, 1999, 2018; Williams et al., 2019). Conceptually, the dissertation connects three empirical studies through a common theoretical argument: early venture formation unfolds through the founder's lens.

At the same time, the dissertation's contributions should be understood considering several overarching scope conditions. First, the findings may be culturally bounded. The experimental studies rely on U.S. entrepreneurs and therefore primarily capture founder evaluation in a Western entrepreneurial context. This limitation matters because the dissertation's core mechanisms involve social exchange, partner evaluation, identity, ownership, and control, all of which may be shaped by cultural and institutional norms. This is especially relevant because the first study's meta-analytic moderator analyses suggest that WEIRD versus non-WEIRD contexts can shape some relationships between dark triad traits and entrepreneurial intentions. Future research may therefore examine whether the founder's lens operates similarly in distinct entrepreneurial contexts. Such work would also respond to broader calls to contextualize entrepreneurship research and to examine how entrepreneurial cognition, team formation, and venture creation unfold within cultural and institutional settings (Autio et al., 2013; Hayton et al., 2002; Henrich et al., 2010; Lazar et al., 2020; Welter, 2011; Zellmer-Bruhn et al., 2021).

Second, the dissertation focuses primarily on the founder level of analysis. This focus is theoretically appropriate because the dissertation seeks to explain how founder dispositions and role identities shape formative interpretations. Yet early venture formation is not only an individual-level process. It is also dyadic, team-based, organizational, and contextual. A founding team, for example, may amplify, suppress, or contest the lead founder's preferences. Future research could therefore extend the founder's lens perspective into multilevel models of venture formation. Such research could examine how individual founder interpretations become shared or contested in teams, how team entrepreneurial passion or collective founder identity shapes ownership decisions, and how lead-founder preferences interact with co-founder acceptance, or conflict. This would connect the founder's lens perspective more closely to research on entrepreneurial teams, team formation, team passion, shared stewardship, and co-founder entry and exit (cf. Breugst et al., 2015; Cardon et al., 2017; Discua Cruz et al., 2013; Klotz et al., 2014; Lazar et al., 2020; Preller et al., 2020, 2023; Santos & Cardon, 2019).

Third, the dissertation theorizes early venture formation as a process but does not empirically trace the same founders across the entire process. The three studies examine theoretically related formation moments rather than one continuous longitudinal pathway. This limitation is important because founder dispositions and role identities may be especially influential when uncertainty is high, information is incomplete, and organizational structures are still weak. Yet these influences may weaken, strengthen, or change direction as founders encounter feedback, co-founder resistance, or early performance outcomes. Future research could therefore study how the founder's lens develops over time. This would connect the founder's lens perspective to research on entrepreneurial action, venture emergence, organizational imprinting, and upper echelons theory by examining how early founder interpretations become embedded in later organizational roles, routines, governance arrangements, and strategic decision-making structures (cf. Baron et al., 1999; Brattström, 2019; Hambrick, 2007; McMullen & Dimov, 2013; Shepherd et al., 2021; Uygur & Kim, 2016).

In doing so, future research could clarify how founder characteristics travel from early individual-level interpretations into upper-echelon influences that shape the venture's later strategy, governance, and development.

Fourth, the dissertation's founder's lens perspective is developed through two theoretically salient sets of founder characteristics: dark triad traits and entrepreneurial passion. These constructs are useful because they illuminate different ways in which founder characteristics can enter early venture formation: as dispositional tendencies that shape preferences for particular social and entrepreneurial environments, and as role-identity-based interpretations that shape how founders evaluate others' contributions. Future research could broaden this perspective by examining additional dispositional, motivational, relational, and identity-based characteristics. Humility and light triad traits could illuminate prosocial dispositions that shape trust, reciprocity, and willingness to share ownership. Regulatory focus could explain how promotion- or prevention-oriented founders evaluate opportunity, risk, control, and partnership tradeoffs. Broader founder identities could clarify how different self-understandings shape the interpretation of entrepreneurial paths, prospective collaborators, and ownership claims, and when their influence is amplified or constrained by situational cues such as resource scarcity, contextual ambiguity, time constraints, equity stakes, or cultural norms around founder centrality (cf. Breugst et al., 2015; Fauchart & Gruber, 2011; Hoang & Gimeno, 2010; Kanze et al., 2018; Kaufman et al., 2019; Radu-Lefebvre et al., 2021; Weissenböck et al., 2024).

In summary, these scope conditions point toward a broader future research agenda rather than undermining the dissertation's contribution. The dissertation shows that founder dispositions and role identities shape how early venture formation situations are interpreted. Future research can build on this insight by examining how the founder's lens travels across cultures, operates across levels of analysis, changes over time, and becomes embedded in the social and ownership architecture of new ventures.

Practical Implications

The practical implications of this dissertation extend beyond the implications developed in the individual empirical papers. Whereas the three studies offer study-specific guidance, the dissertation points to a broader practical insight: early venture formation may benefit from being treated as a founder-shaped process.

For founders, the dissertation suggests that early venture formation benefits from deliberate reflection. Founders often face formative decisions under uncertainty: which entrepreneurial path to pursue, whom to invite into the founding core, and how much ownership to share. The findings of this dissertation indicate that these decisions are shaped not only by the attributes of opportunities, candidates, or ownership arrangements, but also by founders' own dispositions, motives, passion, and control concerns. Practically, founders therefore benefit from asking how their own preferences shape what they perceive as attractive, valuable, threatening, or ownership-worthy. Such reflection is especially important in co-founder selection, where prior research has emphasized both interpersonal attraction and resource seeking as central formation logics (Forbes et al., 2006; Lazar et al., 2020). Founders may benefit from making their selection criteria explicit before evaluating candidates. This can help prevent overreliance on one criterion, such as specific resource contributions, interpersonal comfort, or ownership preservation. It may also help founders recognize when legitimate concerns about control and dilution turn into defensiveness that excludes valuable partners or undermines the cooperative foundations of the future relationship (cf. Wasserman, 2012).

For prospective co-founders, the dissertation highlights that co-founder selection and equity allocation are not one-sided assessments of candidate quality. Prospective co-founders may also evaluate the lead founder (e.g., Fu et al., 2022). A founder's communication style, negotiation posture, reaction to equity claims, and willingness to discuss roles and influence may provide important signals about the future relationship. This is particularly relevant because co-founder relationships are consequential, interdependent, and often difficult to

unwind once team roles, equity stakes, and decision rights have been established (Discua Cruz et al., 2013; Klotz et al., 2014; Wasserman, 2012). Equity offers represent more than financial valuation because they additionally signal belonging, recognition, decision authority, and the extent to which the candidate is allowed to become a co-interpreter of the venture's future. Prospective co-founders may therefore benefit from assessing whether the proposed relationship is not only economically attractive, but also relationally fair and sustainable (cf. Breugst et al., 2015).

For entrepreneurship educators, incubators, and accelerators, the dissertation suggests that venture support may benefit from placing greater emphasis on the relational and ownership foundations of early venture formation. Entrepreneurship programs often focus on opportunity development, business models, pitching, financing, and growth. These topics remain important, but the findings of this dissertation suggest that founders also need structured support in reflecting on their own founder's lens. This includes helping founders distinguish different entrepreneurial motives, evaluate co-founder candidates systematically, recognize control-driven or identity-driven biases, and understand equity allocation as a decision about ownership, fairness, and future collaboration. In this sense, entrepreneurial passion may not only be celebrated as a source of motivation and persistence but also be managed as a role-identity lens that can shape how founders value others' contributions (Cardon et al., 2009, 2013; Cardon & Kirk, 2015). Educators and accelerators can support this process through co-founder selection workshops, equity-allocation simulations, structured reflection exercises, and facilitated conversations about roles, control, contribution, and fairness. Such interventions would complement broader calls for entrepreneurship education to move beyond knowledge transmission and support reflective, action-oriented entrepreneurial learning (Nabi et al., 2017; Neck & Greene, 2011), while applying these pedagogical principles to the relational and ownership decisions that shape early venture formation (cf. Hellmann & Wasserman, 2017; Klotz et al., 2014; Lazar et al., 2020).

For investors, advisors, and mentors, the dissertation suggests that early team and ownership dynamics deserve attention before they become locked in. Investors and advisors often evaluate founding teams after roles and equity arrangements have already been established. However, the findings of this dissertation indicate that earlier attention to founder interpretation may reveal important relational and governance risks. A founder who strongly discounts interpersonal fit, reacts defensively to ownership sharing, or allocates equity primarily in ways that protect a preferred role identity may create conditions for future conflict, exclusion, or misalignment. Advisors and investors can therefore add value by helping founders surface implicit assumptions before these assumptions become embedded in team structures and ownership arrangements. This does not mean that investors should screen founders only for desirable traits or avoid strong founder personalities. They may instead examine whether the venture has practices, conversations, and governance mechanisms that prevent one founder's perspective from dominating the social and ownership architecture of the venture.

Taken together, these practical implications suggest that by making the founder's lens more visible, entrepreneurs and those who support them may be better able to build ventures whose individual, social, and ownership foundations are not only strategically viable, but also relationally sustainable.

Conclusion

This dissertation advanced a founder's lens perspective on early venture formation. Across three empirical studies, it examined how founder dispositions and role identities shape entrepreneurial intention formation, co-founder selection, and equity allocation. Taken together, the findings show that early venture formation unfolds particularly through the interpretations of the individuals who initiate new ventures.

The dissertation contributes to entrepreneurship research by highlighting the interpretive role of founders in the earliest stages of organizing. Founder characteristics do not only influence whether individuals engage in entrepreneurship. They also shape which

entrepreneurial paths appear attractive, which prospective co-founders appear desirable, and which contributions appear worthy of ownership. In this sense, early venture formation is not merely a sequence of decisions; it is a sequence of evaluative translations. Founders translate entrepreneurial domains into personally meaningful paths, candidate attributes into partnership value, and contributions into ownership claims.

At the same time, the dissertation points to a more ambivalent understanding of the founder's lens. Founder dispositions and role identities may enable venture creation by helping founders imagine entrepreneurial futures, evaluate collaborators, and protect the venture's emerging direction. Yet they may also constrain early venture formation by narrowing what founders perceive as valuable, trustworthy, fair, or legitimate. Thus, the founder's lens is both generative and consequential. Understanding how new ventures emerge therefore requires understanding not only what founders pursue, but also how they interpret what they encounter.

Early venture formation remains an important and theoretically rich subject precisely because many of its most consequential processes unfold before ventures are fully visible as organizations. This dissertation does not resolve all questions about how founders shape these formative moments. However, it offers a perspective through which they can be examined more clearly: the founder's lens. By showing how founder interpretation shapes entrepreneurial paths, partners and ownership, this dissertation invites future research to examine how such interpretations become embedded in the individual, social, and ownership foundations of new ventures and shape their subsequent development as organizations.

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Appendices

Appendix 2.A *Search Terms Used in Systematic Literature Search*

We searched three major databases (i.e., Google Scholar, Business Source Premier, and ProQuest Dissertations and Theses) and the proceedings of the Babson College Entrepreneurship Research Conference and the Academy of Management Annual Meeting. The search strategy combined entrepreneurship-related terms with dark-triad-related terms using the Boolean operator AND. Within each conceptual block, terms were connected using OR.

Search term block	**Boolean search terms**
Entrepreneurship-related terms	"entrepreneurship" OR "entrepreneur" OR "entrepreneurial" OR "small business" OR "new venture" OR "new firm" OR "small firm" OR "startup" OR "intention" OR "intentions" OR "entrepreneurial intention" OR "entrepreneurial intentions" OR "EI" OR "social entrepreneurship" OR "social entrepreneur" OR "social entrepreneurial intention" OR "social entrepreneurial intentions" OR "SEI" OR "S-ENT" OR "entrepreneurial intention scale"
Connector	**AND**
Dark-triad-related terms	"Narcissism" OR "narcissist" OR "dark triad" OR "machiavellianism" OR "machiavellian" OR "psychopathy" OR "psychopath" OR "dark personality traits" OR "narcissistic personality traits" OR "dark tetrad" OR "Dirty Dozen" OR "Narcissistic Personality inventory" OR "NPI" OR "Short Dark Triad" OR "SD3" OR "NPI-16" OR "MACH-IV" OR "Machiavellian personality scale" OR "MPS" OR "Psychopathic Personality Inventory" OR "SRP-III"

Note. Quotation marks indicate exact search terms. The term blocks were adapted for database searches using the operators shown above.

Appendix 2.B *Studies and Coding of Studies Included in the Meta-Analysis*

No.	Author name, year	Sample size (n)	Mach	Narc	Psy	CEI	SEI	PRJP	Journal or source
1	Akçakanat & Dinç (2018)	200	✓			✓		✓	International Journal of Economic and Administrative Studies
2	Al-Ghazali & Afsar (2021)	362		✓		✓		✓	Journal of High Technology Management Research
3	An & Choi (2018)	265	✓	✓	✓	✓		✓	Asia-Pacific Journal of Business Venturing and Entrepreneurship
4	Baldegger & Klösel (2023)	146		✓		✓		✓	Journal of Enterprising Culture
5	Baldegger et al. (2017)	385		✓		✓		✓	International Journal of Entrepreneurial Venturing
6	Cai et al. (2021)	347	✓	✓	✓	✓		✓	Frontiers of Business Research in China
7	Cesinger et al. (2011)	55	✓	✓	✓	✓			British Academy of Management Conference
8	Chaudhary & Biswas (2025)	640		✓		✓		✓	International Journal of Educational Management
9	Choi & Hwang (2020)	358		✓		✓		✓	Journal of Information Technology Applications & Management
10	Chugh et al. (2025)	340		✓		✓		✓	Journal of Enterprising Communities: People and Places in the Global Economy
11	Do & Dadvari (2017)	290	✓	✓	✓	✓		✓	Asia Pacific Management Review
12	Hanson et al. (2024)	531	✓	✓		✓		✓	Journal of Management & Organization
13	Hmieleski & Lerner (2016), Study 1	508	✓	✓	✓	✓		✓	Journal of Small Business Management
14	Hmieleski & Lerner (2016), Study 2	234	✓	✓	✓	✓		✓	Journal of Small Business Management
15	Hoang et al. (2022)	962	✓	✓	✓	✓		✓	Journal of Business Venturing Insights
16	Hoang et al. (2024)	422		✓		✓		✓	International Journal of Management Education
17	Iyayi & Obeki (2018)	154	✓	✓	✓	✓		✓	Nigerian Academy of Management Journal
18	Jackson (2018)	227	✓	✓	✓	✓		✓	Personality and Individual Differences
19	Jahanshahi et al. (2025)	2,880	✓	✓	✓		✓	✓	Journal of Business Ethics
20	Jin et al. (2014), Study 1	471	✓			✓			ASEE Annual Conference
21	Jin et al. (2014), Study 2	518	✓			✓			ASEE Annual Conference
22	Khawar et al. (2022)	539	✓	✓	✓	✓		✓	Frontiers in Psychology
23	Kim et al. (2023)	194		✓			✓	✓	Journal of Business Research
24	Kramer et al. (2011)	146	✓	✓	✓	✓			ANZAM Conference Proceedings
25	Laouiti et al. (2025)	896	✓	✓	✓	✓		✓	European Management Review
26	Lee et al. (2025)	531		✓		✓		✓	Asia Pacific Journal of Management

27	Leung et al. (2021), Study 1	182		✓		✓		✓	Journal of Business Venturing Insights
28	Leung et al. (2021), Study 2	2,438		✓		✓		✓	Journal of Business Venturing Insights
29	Leung et al. (2021), Study 3	1,250		✓		✓		✓	Journal of Business Venturing Insights
30	Lien et al. (2022)	400	✓	✓	✓	✓		✓	Journal of Innovation and Entrepreneurship
31	Mathieu & St-Jean (2013)	73		✓		✓		✓	Personality and Individual Differences
32	McLarty et al. (2023)	345	✓	✓	✓	✓		✓	Journal of Small Business Management
33	Nguyen et al. (2022), Study 1	550	✓	✓	✓	✓			Proceedings of Rijeka Faculty of Economics
34	Nguyen et al. (2022), Study 2	700	✓	✓	✓	✓			Proceedings of Rijeka Faculty of Economics
35	Schippers et al. (2019)	348	✓	✓	✓	✓		✓	Frontiers in Psychology
36	Singh (2025)	403		✓		✓		✓	International Journal of Management, Innovation & Entrepreneurial Research
37	Taboroši et al. (2023)	400	✓			✓		✓	Organizacija
38	Terek-Stojanović et al. (2023)	400		✓		✓		✓	Journal of Engineering Management and Competitiveness
39	Tucker (2016)	540		✓	✓	✓			Dissertation, University of Alabama
40	Voegel (2017), Study 1	481	✓	✓	✓	✓			Dissertation, Southern Illinois University Carbondale
41	Voegel (2017), Study 2	481	✓	✓	✓		✓		Dissertation, Southern Illinois University Carbondale
42	White & Marino (2020), Study 1	158			✓	✓			Academy of Management Proceedings
43	White & Marino (2020), Study 2	1,125			✓	✓			Academy of Management Proceedings
44	Wu et al. (2019)	334	✓	✓	✓	✓		✓	Frontiers in Psychology
45	Wu et al. (2020), Study 1	491	✓	✓	✓		✓	✓	Frontiers in Psychology
46	Wu et al. (2020), Study 2	412	✓	✓	✓		✓	✓	Frontiers in Psychology
47	Wu et al. (2022)	275		✓			✓	✓	Information Technology & People
48	Yadav & Batra (2023)	220		✓		✓		✓	The Journal of Entrepreneurship

Note. Checkmarks indicate that the study measured the respective construct or is a journal publication. Mach = Machiavellianism; Narc = narcissism; Psy = psychopathy; CEI = commercial entrepreneurial intention; SEI = social entrepreneurial intention; PRJP = peer-reviewed journal publication.

Appendix 2.C *Publication Bias and Robustness Tests*

To assess the possibility of publication bias and small-study effects, we applied four complementary procedures: Duval and Tweedie's (2000) trim-and-fill analysis, Egger et al.'s (1997) regression test, Rosenthal's (1979) fail-safe *N*, and cumulative meta-analysis. All analyses were conducted using the meta-analysis module in IBM SPSS Statistics 31 or, where necessary, calculated in Microsoft Excel.

First, we conducted a trim-and-fill analysis (Duval & Tweedie, 2000) to identify and impute potentially missing studies required to achieve a symmetric funnel plot and distribution of the effect size under plausible patterns of small-study suppression (Duval & Tweedie, 2000). It provides an adjusted effect size after the imputation of these potentially missing studies (Duval & Tweedie, 2000). Only for the relationship between psychopathy and CEI, the trim and fil analysis suggested the imputation of 5 studies. After the imputation of these studies, the corrected effect sizes decreased from $r_c = .11$ ($p < 0.001$) to T&F $r_c = .07$ ($p > 0.05$), indicating that the relationship may be smaller but remaining positive and statistically significant.

Second, we performed Egger et al.'s (1997) regression test. A significant intercept indicates funnel-plot asymmetry and may suggest that effect-size magnitude is systematically related to study precision. Significant intercepts were found for the Machiavellianism–CEI relationship and the narcissism–CEI relationship, indicating potential funnel-plot asymmetry for these relationships.

Third, Rosenthal's fail-safe *N* (Rosenthal, 1979) was calculated. This method estimates how many unpublished null-effect studies would be required to reduce the overall effect to non-significance. For all relationships, the fail-safe *N* exceeded Rosenthal's (1979) critical threshold of $5k+10$ for the respective relationship, suggesting that the observed effects are robust against potential publication bias.

Finally, a cumulative meta-analysis (CMA) was conducted by sequentially adding studies in descending order of sample size. If small-study effects indicative of publication bias were present, the cumulative effect size would be expected to change systematically as smaller studies are added. Across relationships, the cumulative effect sizes remained relatively stable after the inclusion of the first few studies and did not show a consistent downward or upward trend. Although some fluctuations were observed, particularly for psychopathy–CEI and narcissism–SEI relationships, no systematic pattern indicating small-study effects was found. We report the cumulative estimates for the first five studies, unless data limitations forced us to rely on the first four studies.

Overall, the four tests did not reveal a consistent pattern of publication bias for the investigated relationships. Although some evidence of potential publication bias was found for the relationship between psychopathy and CEI, we accounted for this potential bias by using the imputed effect size for our reporting and interpretation instead of the originally observed corrected effect size. Our inclusion of unpublished work, conference papers, and dissertations served as a further ex-ante mitigation against publication bias (Rothstein et al., 2005).

Appendix 2.C *Publication Bias and Robustness Tests (continued)*

	RE T&F			Egger's test	Fail-safe *N*		CMA
	FPS	k_{imp}	T&F r_{c0}	intercept	k_0 r	threshold	*pr* r_{c0}
CEI							
Machiavellianism	right	0	-	0.20*	1629	130	0.08***
Narcissism	left	0	-	0.22**	8919	190	0.10***
Psychopathy	left	5	0.07*	-0.08	469	120	0
SEI							
Machiavellianism	left	0	-	-0.31	279	30	-0.26***a)
Narcissism	left	0	-	-0.33	147	40	0.03***
Psychopathy	left	0	-	-0.44	262	30	-0.26***a)

Note. RE T&F = random effect trim and fill analysis; FPS = funnel plot side (i.e., side of the funnel plot where samples were predicted to be missing (side of main effect closer to zero); k_{imp} = number of trim and fill samples imputed; T&F r_{c0} = random-effect trim and fill adjusted observed mean; k_0 r = Rosenthal's Fail-safe *N* (estimated number of unpublished null-effect studies required to render the overall effect non-significant); threshold = critical value for fail-safe N analysis (Rosenthal, 1979); CMA = cumulative meta-analysis; pr r_{c0} = meta-analytic mean estimate of the five most precise effects. a) only the first four studies due to data restrictions; * $p < 0.05$, ** $p < 0.01$. *** $p < 0.001$.

Appendix 2.D *Robustness Test: Subsampling Analysis*

We conducted an additional subsample meta-analysis including only studies published in peer-reviewed journals (N = 37; see Appendix B). Because our full sample includes non-peer-reviewed sources, dissertations and conference papers to reduce selective-publication concerns, this analysis examined whether the main findings were sensitive to publication status. Overall, the published-study subsample was largely consistent with the full sample in terms of direction and magnitude. For CEI, all three dark triad traits remained positive and statistically significant. Notably, the psychopathy–CEI relationship was stronger in the published-study subsample than in the full sample. For SEI, Machiavellianism and psychopathy remained negative, while narcissism remained positive. We observed two differences: narcissism–SEI remained positive but became statistically less robust in the published-study subsample, whereas psychopathy–SEI remained negative and became more strongly significant. Given the small number of SEI studies and the absence of convergent evidence of publication bias for either relationship (see Appendix 2.C), we interpret these findings as directionally robust but limited in statistical stability.

Appendix 2.D1. Full-sample analyses

Entrepreneurial intention	k	n	r	r_c		SD_{rc}	95% CI	80% CV	I^2
CEI									
Machiavellianism	24	9901	0.14	0.16	***	0.11	[0.11, 0.21]	[0.02; 0.31]	85%
Narcissism	36	17002	0.20	0.24	***	0.16	[0.18, 0.29]	[0.03; 0.44]	93%
Psychopathy	22	9604	0.09	0.07	*a)	0.12	[0.01, 0.13]	[-0.04; 0.26]	86%
SEI									
Machiavellianism	4	4264	-0.21	-0.26	***	0.08	[-0.34, -0.17]	[-0.35; -0.16]	84%
Narcissism	6	4733	0.18	0.23	*	0.27	[0.01, 0.45]	[-0.12; 0.58]	98%
Psychopathy	4	4264	-0.18	-0.23	*	0.23	[-0.45, -0.00]	[-0.52; 0.06]	98%

Note. † p < 0.2, + p < 0.1, * p < 0.05, ** p < 0.01. *** p < 0.001, k = number of studies, n = sample size, r = observed effect size, r_c = effect size corrected for unreliability, SDr_c = standard deviation of r_c, CI = confidence interval, CV = credibility interval, I^2 = heterogeneity statistic; a) Imputation of 5 studies in line with the trim-and-fill method; without imputation: r_c = 0.11***.

Appendix 2.D2. Published-study subsample analyses

Entrepreneurial intention	k	n	r	r_c		SD_{rc}	95% CI	80% CV	I^2
CEI									
Machiavellianism	17	6980	0.16	0.19	***	0.03	[0.14; 0,24]	[0.07; 0.31]	79%
Narcissism	30	14530	0.22	0.26	***	0.03	[0.20; 0.31]	[0.07; 0.44]	92%
Psychopathy	14	5849	0.11	0.12	***	0.03	[0.07; 0.18]	[0.02; 0.23]	75%
SEI									
Machiavellianism	3	3783	-0.25	-0.29	***	0.03	[-0.35; -0.23]	[-0.35; -0.23]	60%
Narcissism	5	4252	0.15	0.18	†	0.12	[-0.06; 0.42]	[-0.16; 0.53]	98%
Psychopathy	3	3783	-0.26	-0.33	***	0.04	[-0.45; -0.00]	[-0.42; -0.24]	82%

Note. † p < 0.2, + p < 0.1, * p < 0.05, ** p < 0.01. *** p < 0.001, k = number of studies, n = sample size, r = observed effect size, r_c = effect size corrected for unreliability, SDr_c = standard deviation of r_c, CI = confidence interval, CV = credibility interval, I^2 = heterogeneity statistic.

Appendix 3.A *Pre-Study (Prolific): Data Quality Procedures and Sample Evaluation*

1. Pre-screening and validation of entrepreneurial status

To ensure that respondents possessed relevant entrepreneurial experience, we applied both platform-level screening criteria and survey-based pre-screening procedures.

At the platform level, Prolific employs extensive safeguards to ensure authentic human participants. Before entering the research pool, participants undergo more than 50 onboarding verification checks, including phone and email verification, identity confirmation, and behavioral screening designed to detect automated accounts. Identity verification further includes document checks and live video "liveness" procedures to ensure that participants correspond to real individuals. Following onboarding, participants are continuously monitored, with suspicious behavioral patterns (e.g., abnormal activity levels or inconsistent responses) triggering additional verification or account suspension. Prolific also deploys behavioral detection systems capable of identifying bots, AI agents, and AI-assisted responses. These safeguards are complemented by researcher feedback systems that allow low-quality or suspicious responses to be flagged and removed from the participant pool.

In addition, we restricted participation to respondents who:

- had an approval rate between 95% and 100%,
- were fluent in English,
- resided in the United States, and
- indicated that they were currently engaged in entrepreneurship ("I am currently doing this").

In addition, we implemented three pre-screening questions at the beginning of the survey:

- What is your country of residence?
- Are you fluent in English?
- Have you engaged in entrepreneurship (i.e., started or owned a business intended as a primary or significant source of income)?

To further validate respondents' entrepreneurial background, we included additional items within the survey capturing:

- years of entrepreneurial experience,
- number of ventures founded, and
- roles held (lead founder, co-founder, both, or none).

These measures enabled cross-validation of responses and ensured credible entrepreneurial involvement. Importantly, we restricted the sample to individuals currently engaged in entrepreneurship, excluding those reporting only past or intended activity. Our multi-layered screening approach follows recent Prolific-based entrepreneurship studies that combine platform pre-screening with additional researcher-driven validation (e.g., Allen et al., 2025; Gray et al., 2024; Michaelis et al., 2026; Pollack et al., 2026).

2. Data quality procedures

Beyond Prolific's built-in participant quality controls, we implemented a series of researcher-driven procedures to detect careless or invalid responses. These included:

- Manipulation check: respondents were required to recall key task information (e.g., "In the task setting, how much equity do you hold prior to selecting a co-founder?") using an open-text response format.
- Logical consistency checks: identification of implausible or inconsistent responses.

- Attention checks: instructed-response and bogus items (e.g., "Please click 'applies completely'," "Please select strongly agree here," and "I swim across the ocean to get to work every day").

Respondents failing any of these criteria were excluded from the final sample.

3. Sample Overview

The initial sample consisted of 220 respondents who completed the study. We then applied the following exclusion criteria:

Step	Description	N Excluded	Remaining N
Initial sample	Completed experiment and survey	–	220
1	Failed manipulation check	38	182
2	Implausible responses	3	179
3	Failed attention checks	2	177
Final sample	Analytical sample	–	**177**

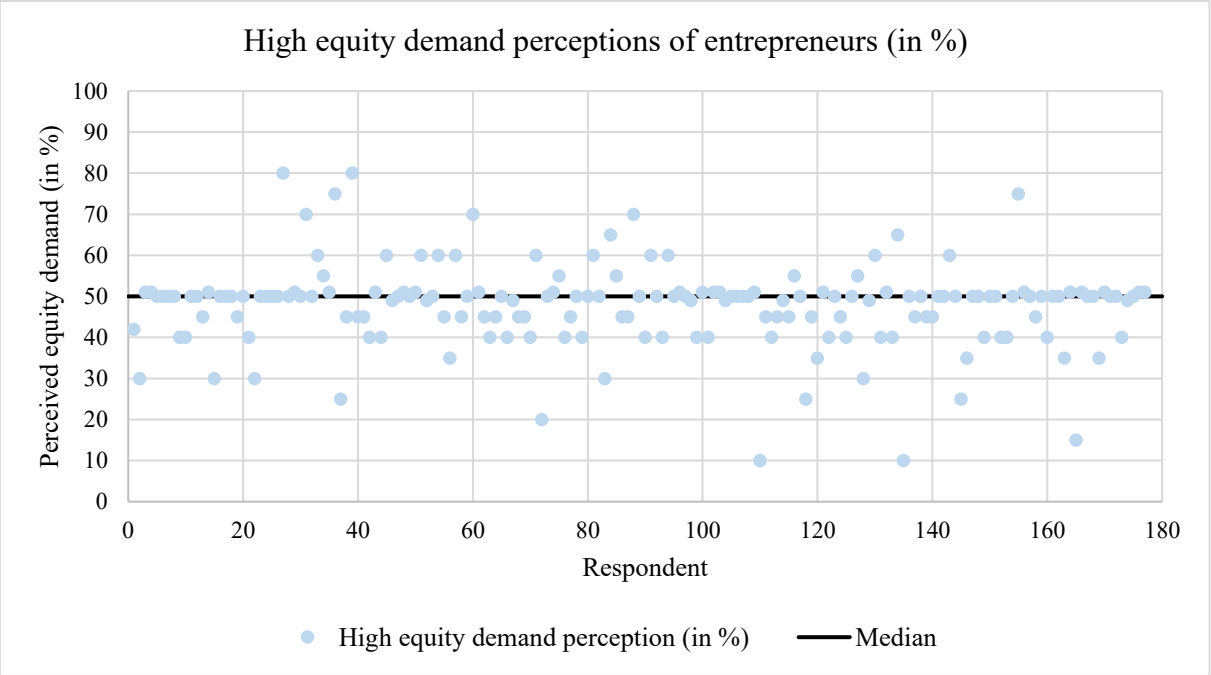
Step 1: Manipulation check (n = 38 excluded)
We excluded respondents who failed one manipulation check requiring recall of key task information (equity ownership pre-selection) via an open-text response.

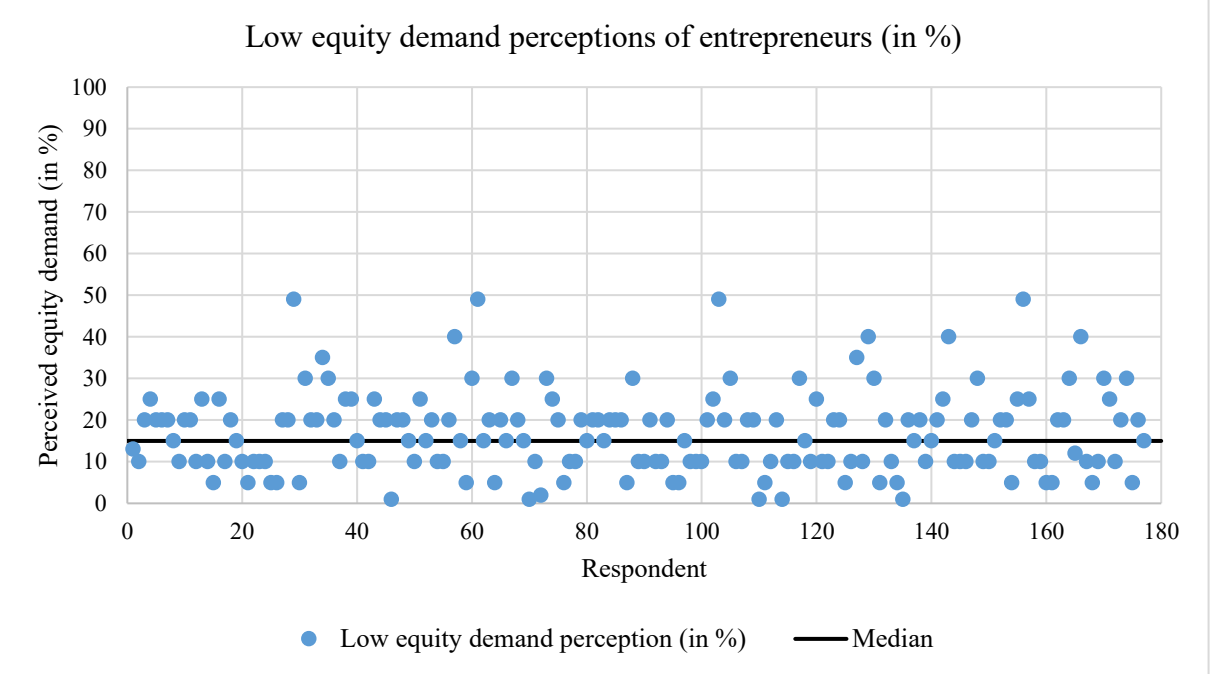
Step 2: Implausible responses (n = 3 excluded)
Respondents providing implausible or logically inconsistent answers (e.g., age lower than years of professional experience) were removed.

Step 3: Attention checks (n = 2 excluded)
Respondents who failed more than one instructed-response items or bogus items were removed.

Appendix 3.B *Pre-Study Results: Equity Demand Perception of Entrepreneurs*

Pre-study results: Equity demand perception of entrepreneurs





Note. We visualize the equity demand perceptions of each respondent in our pre-study regarding "low" and "high" equity demand. The sample comprises 177 U.S. entrepreneurs. High equity demand corresponds to a median of 50% (M = 47.69, S.D. = 10.22), whereas low equity demand corresponds to a median of 15% (M = 16.85, S.D. = 9.88).

Appendix 3.C *Main Study (Dynata): Data Quality Procedures and Sample Evaluation*

1. Pre-screening and validation of entrepreneurial status

Respondents in our main study were recruited through Dynata's B2B entrepreneurship panel, which applies a multi-layered respondent verification and monitoring system.

Panelists must pass an entry survey and are validated through device matching and geolocation checks. Importantly, B2B respondents undergo external verification and Dynata's "virtual resume" validation process, which continuously verifies panelists' professional roles and subject-matter expertise against external databases. During survey participation, respondents are monitored through Dynata's proprietary QualityScore™ system, which evaluates more than 170 behavioral, technical, and environmental signals. These include mouse movement patterns, response timing, IP monitoring, open-ended response patterns, and system configurations to detect non-human or automated behavior. Suspicious cases may trigger additional identity verification or removal from the panel. These procedures form part of Dynata's broader AI- and machine-learning–based fraud detection system designed to identify bot activity and fraudulent responses in real time. Together, they are in line with best-practice recommendations for mitigating bot-generated responses and ensuring respondent authenticity in online survey research (Irish & Saba, 2023; Pinzon et al., 2024; Zickar & Keith, 2023).

To further ensure that respondents are eligible and possessed relevant entrepreneurial experience, we implemented five pre-screening questions at the beginning of the survey:

- Are you fluent in English?
- Which of the following best describes your current employment status?
- What type of self-employment best describes your current situation?
- Have you engaged in entrepreneurship (i.e., started or owned a business intended as a primary or significant source of income)?
- Please indicate which of the following activities your venture primarily involves (e.g., introducing new products or services, applying new production or sales methods, entering new markets, accessing new sources of inputs, introducing new organizational forms, or none of these).

To further validate respondents' entrepreneurial background, we included additional items within the survey capturing:

- years of entrepreneurial experience,
- number of ventures founded, and
- roles held (lead founder, co-founder, both, or none).

These measures allowed us to cross-check responses for internal consistency and ensure credible entrepreneurial involvement.

2. Data quality procedures

Beyond the quality checks implemented by the professional panel provider (Dynata), we applied a series of researcher-driven procedures consistent with best practices for detecting careless, inconsistent and fraudulent responses (e.g., Pinzon et al., 2024; Zickar & Keith, 2023). These included:

- Attention checks: instructed-response items and bogus statements
- Manipulation checks: recall of experimentally manipulated attributes using open-text responses

- Straightlining detection: identification of long strings of identical responses
- Logical consistency checks: detection of implausible combinations (e.g., age < years of experience)
- Fraud detection: identification of duplicate or suspicious entries using paradata (timestamps, device characteristics)

Respondents failing any of these criteria were excluded from the final sample.

3. Sample Overview

The initial sample consisted of 267 respondents who completed both the conjoint experiment and the post-experimental survey. We applied a series of exclusion criteria as follows:

Step	Description	N Excluded	Remaining N
Initial sample	Completed experiment and survey	–	267
1	Failed attention checks	12	255
2–3	Failed manipulation checks	29	226
4	Straightlining responses	6	220
5	Failed entrepreneurial status checks	8	212
6	Logical inconsistencies	2	210
7	Duplicate/suspicious responses	4	206
Final sample	Analytical sample	–	**206**

Step 1: Attention checks (n = 12 excluded)

Respondents who failed more than one instructed-response items or bogus items were removed.

Step 2–3: Manipulation checks (n = 29 excluded)

We excluded 22 respondents who failed more than one manipulation check and 7 respondents who failed both one attention and one manipulation check. Manipulation checks required participants to recall key profile attributes (e.g., equity demand) via open-text responses.

Step 4: Straightlining behavior (n = 6 excluded)

We excluded respondents exhibiting excessive straightlining, defined as long strings of identical responses (LongStrings ≥ 15 in the post-experimental survey or ≥ 9 in the conjoint task).

Step 5: Entrepreneurial status checks (n = 8 excluded)

Respondents who did not fulfill all entrepreneurial screening and cross-validation criteria were removed.

Step 6: Logical inconsistencies (n = 2 excluded)

Respondents with implausible or inconsistent responses (e.g., age lower than years of professional experience) were excluded.

Step 7: Duplicate or suspicious responses (n = 4 excluded)

We identified potentially fraudulent or duplicate entries based on identical device characteristics (operating system, browser, screen width), closely timed submissions and identical demographic profiles. These cases were removed.

Overall, these procedures provide a conservative and transparent approach to ensuring data quality and respondent validity. The final analytical sample consists of 206 respondents with verified entrepreneurial experience and high-quality response patterns.

Appendix 3.D *Dark Triad Construct: Overview and Confirmatory Factor Analysis*

Construct	Loading
Dark triad (composite index; α = 0.82)	
Machiavellianism (α = 0.80)	
1. I tend to manipulate others to get my way.	0.73
2. I have used deceit or lied to get my way.	0.71
3. I have used flattery to get my way.	0.82
4. I tend to exploit others toward my own end.	0.59
Narcissism (α = 0.78)	
1. I tend to want others to admire me.	0.82
2. I tend to want others to pay attention to me.	0.80
3. I tend to seek prestige or status.	0.73
4. I tend to expect special favors from others.	0.66
Psychopathy (α = 0.72)	
1. I tend to lack remorse.	0.49
2. I tend to be unconcerned with the morality of my actions.	0.43
3. I tend to be callous or insensitive.	0.67
4. I tend to be cynical.	0.64

Note. We employed the dirty dozen (12-item) scale by Jonason & Webster (2010) which has been slightly adapted by Brownell et al. (2024). Participants were asked to indicate how much they agree with each statement (Disagree strongly – 1; Agree strongly – 5). The dark triad composite score had a minimum of 1.00, a maximum of 4.00, a mean of 2.06 (S.D. = 0.58), and a skewness of 0.54.

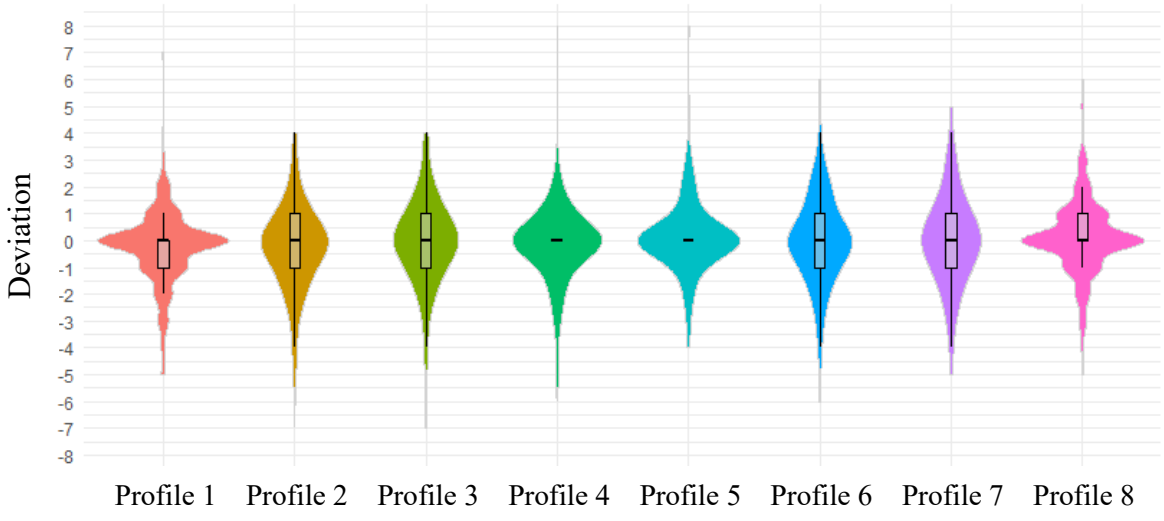
Appendix 3.E *Conjoint Workflow Analysis*

a) Test-retest reliability analysis for each conjoint profile

Profile	ICC	95% CI
1	0.86	[0.82, 0.90]
2	0.82	[0.76, 0.86]
3	0.80	[0.74, 0.85]
4	0.81	[0.76, 0.86]
5	0.77	[0.69, 0.82]
6	0.79	[0.73, 0.84]
7	0.76	[0.68, 0.82]
8	0.82	[0.76, 0.86]

Note. ICC = Intraclass Correlation Coefficient (3,k) based test-retest reliability. Following the workflow proposed by Schueler et al. (2024) to evaluate confidence in conjoint model results, we first assess test-retest reliability by estimating ICCs and corresponding 95% confidence intervals (CIs) for each replicated profile of the main conjoint test. The results indicate consistently high levels of response stability across profiles, providing evidence for robust test-retest reliability. In line with Schueler et al. (2024), this constitutes the first step of their four-stage reliability workflow, which evaluates model confidence through systematic assessment of response consistency, parameter stability, and design robustness. We additionally visualize the corresponding deviations using violin plots shown in Appendix 3.C b) below.

b) Violin plots: Deviation analysis for each conjoint profile



Note. Violin plots illustrate the distribution of individual-level deviations between test and retest ratings for each conjoint profile. Wider sections of the violins indicate higher density of responses, while the embedded boxplots represent interquartile ranges and medians. Following Schueler et al. (2024), this deviation analysis serves as part of the first step of the reliability workflow, visualizing response dispersion and potential outliers across repeated measurements. The narrow and symmetrical shapes across profiles indicate low deviation and high response consistency, supporting the robustness of the conjoint data.

Appendix 3.E *Conjoint Workflow Analysis (continued)*

c) Slope difference test

DV: Willingness to select	1st round model	2nd round model	Slope diff. test	Pooled model
Interpersonal attraction	2.51*** (0.11)	2.52*** (0.11)	–0.01 (0.16)	2.51*** (0.06)
Resource contributions	2.16*** (0.11)	2.09*** (0.11)	0.07 (0.16)	2.13*** (0.06)
Equity demand	–0.80*** (0.13)	–1.02*** (0.13)	0.23 (0.18)	– 0.91*** (0.06)
Constant	4.89*** (0.07)	4.83*** (0.06)		4.86*** (0.06)

Note. As the second and third steps of the four-stage reliability workflow by Schueler et al. (2024), we estimated separate linear regression models for the main test (1st round) and the retest (2nd round) using clustered standard errors. These models provide coefficient estimates for each conjoint attribute in both rounds. We then conducted slope difference tests to examine whether the coefficients significantly differ across rounds, followed by a fully pooled model (forth step) combining both datasets (main and retest) with clustering at the respondent and round levels. The results show no statistically significant slope differences between the first and second rounds, indicating stable parameter estimates across repeated measurements. Consistent with Schueler et al. (2024, p. 747), response consistency is defined as "no statistically significant difference between the coefficient estimate in the first model and the coefficient estimate in the second model." Together, these analyses demonstrate high model stability and contribute to the overall reliability assessment. *$p < 0.1$; **$p < 0.05$; ***$p < 0.01$. Standard errors are reported in parentheses.

Appendix 3.F *Predicted Values*

Co-Founder Attribute	Level	Dark triad	Predicted WTS	SE	*p*-Value	95% CI	
						Lower	Upper
Warmth and likability	Low	– 2 S.D.	3.037	0.195	0.000	2.655	3.420
		– 1 S.D.	3.321	0.124	0.000	3.078	3.565
		Mean	3.606	0.084	0.000	3.441	3.770
		+ 1 S.D.	3.890	0.113	0.000	3.668	4.112
		+ 2 S.D.	4.174	0.181	0.000	3.819	4.529
	High	– 2 S.D.	6.085	0.189	0.000	5.715	6.454
		– 1 S.D.	6.102	0.116	0.000	5.876	6.329
		Mean	6.120	0.069	0.000	5.985	6.254
		+ 1 S.D.	6.137	0.099	0.000	5.944	6.330
		+ 2 S.D.	6.154	0.168	0.000	5.825	6.484
Equity demand	Low	– 2 S.D.	4.680	0.182	0.000	4.323	5.038
		– 1 S.D.	4.999	0.112	0.000	4.780	5.218
		Mean	5.318	0.074	0.000	5.172	5.464
		+ 1 S.D.	5.637	0.111	0.000	5.419	5.854
		+ 2 S.D.	5.956	0.181	0.000	5.601	6.311
	High	– 2 S.D.	4.442	0.213	0.000	4.025	4.859
		– 1 S.D.	4.424	0.136	0.000	4.157	4.692
		Mean	4.407	0.090	0.000	4.230	4.584
		+ 1 S.D.	4.390	0.118	0.000	4.159	4.621
		+ 2 S.D.	4.373	0.189	0.000	4.001	4.744

Note. We report the predicted values for the significant interaction terms of our main analysis (Table 3.3). ‘‘Low’’ levels represent – 0.5 and ‘‘high’’ levels represent 0.5 of co-founder attributes. Lower (–2 S.D.; –1 S.D.), mean, and higher (+1 S.D.; +2 S.D.) levels of the dark triad represent group-mean-centered values of the dark triad in our sample. Lower (–2 S.D.) values of the dark triad fall slightly outside the theoretical scale range and should therefore be interpreted as extrapolated values used to illustrate the functional form of the interaction. WTS = willingness to select; SE = standard error; CI = confidence interval.

Appendix 3.G *Average Marginal Effects of Cross-Level Interactions*

					95% CI	
Co-Founder Attribute	Dark triad	dy/dx	SE	*p*-Value	Lower	Upper
Interpersonal warmth and likability *in the presence of the dark triad:*	– 2 S.D.	3.047	0.223	0.000	2.610	3.485
	– 1 S.D.	2.781	0.145	0.000	2.497	3.065
	Mean	2.514	0.101	0.000	2.316	2.712
	+ 1 S.D.	2.247	0.133	0.000	1.988	2.507
	+ 2 S.D.	1.981	0.207	0.000	1.574	2.387
Equity demand *in the presence of the dark triad:*	– 2 S.D.	–0.238	0.245	0.330	–0.718	0.241
	– 1 S.D.	–0.575	0.160	0.000	–0.888	–0.261
	Mean	–0.911	0.118	0.000	–1.143	–0.679
	+ 1 S.D.	–1.247	0.158	0.000	–1.557	–0.938
	+ 2 S.D.	–1.583	0.242	0.000	–2.057	–1.110

Note. We present the average marginal effects for the significant cross-level interactions of our main analysis (Table 3.3). Lower (–2 S.D.; –1 S.D.), mean, and higher (+1 S.D.; +2 S.D.) levels of the dark triad represent group-mean-centered values of the dark triad in our sample. Lower (–2 S.D.) values of the dark triad fall slightly outside the theoretical scale range and should therefore be interpreted as extrapolated values used to illustrate the functional form of the interaction.

Appendix 3.H *Stepwise HLM Regression Results*

DV: Willingness to select	**Model 1** Controls only	**Model 2** Add main effects	**Model 3** Add moderator	**Model 4** Add interactions (full model)
Controls (level 2)				
Age	0.008 (0.008)	0.008 (0.008)	0.008 (0.011)	0.008 (0.011)
Gender	0.104 (0.121)	0.104 (0.121)	0.133 (0.126)	0.133 (0.126)
Education	0.014 (0.080)	0.014 (0.080)	0.015 (0.086)	0.015 (0.086)
Work experience	–0.012 (0.008)	–0.012 (0.008)	–0.012 (0.010)	–0.012 (0.010)
Active co-founder search	0.102** (0.042)	0.102** (0.042)	0.100** (0.046)	0.100** (0.046)
Entrepreneurial passion	0.013 (0.008)	0.013 (0.008)	0.015* (0.008)	0.015* (0.008)
Social desirability	–0.076 (0.151)	–0.076 (0.151)	–0.125 (0.140)	–0.125 (0.140)
Overconfidence	–0.002 (0.003)	–0.002 (0.003)	–0.002 (0.003)	–0.002 (0.003)
Dispositional optimism	0.019 (0.087)	0.019 (0.087)	0.038 (0.100)	0.038 (0.100)
Entrepreneurial self-efficacy	–0.104 (0.105)	–0.104 (0.105)	–0.107 (0.080)	–0.107 (0.080)
Hubristic pride	0.225* (0.135)	0.225* (0.135)	0.070 (0.130)	0.070 (0.130)
Main effects (level 1)				
Interpersonal attraction				
Warmth and likability		2.514*** (0.103)	2.514*** (0.101)	2.514*** (0.101)
Resource seeking				
Resource contributions		2.127*** (0.104)	2.127*** (0.104)	2.127*** (0.104)
Equity consideration				
Equity demand		–0.911*** (0.121)	–0.911*** (0.118)	–0.911*** (0.118)
Moderator (level 2)				
Dark triad			0.261** (0.119)	0.261** (0.119)
Cross-level interaction effects				
Dark triad x interpersonal attraction				
Dark triad x warmth and likability				–0.462*** (0.165)
Dark triad x resource seeking				
Dark triad x resource contributions				0.097 (0.201)
Dark triad x equity consideration				
Dark triad x equity demand				–0.583*** (0.184)
Constant	4.863*** (0.058)	4.863*** (0.058)	4.863*** (0.058)	4.863*** (0.058)
Observations (no. of participants)	3,296 (206)	3,296 (206)	3,296 (206)	3,296 (206)

Note. Model 1 includes control variables only. Model 2 adds the main effects (level 1) and Model 3 the moderator (level 2). Model 4 presents the full model, including cross-level interaction effects. All models are based upon two-level HLM with cluster robust standard errors at the individual level of analysis. Unstandardized coefficients are reported. Standard errors in parentheses. *$p < 0.1$; **$p < 0.05$; ***$p < 0.01$.

Appendix 3.I *Robustness Checks*

DV: Willingness to select	**Model 5** OLS regression	**Model 6** Main model	**Model 7** Retest model
Controls (level 2)			
Age		0.012 (0.012)	0.004 (0.010)
Gender		0.117 (0.143)	0.150 (0.124)
Education		0.008 (0.097)	0.023 (0.085)
Work experience		–0.016 (0.011)	–0.009 (0.010)
Active co-founder search		0.126*** (0.049)	0.073 (0.047)
Entrepreneurial passion		0.020** (0.010)	0.011 (0.008)
Social desirability		–0.253* (0.153)	0.002 (0.149)
Overconfidence		–0.003 (0.003)	–0.002 (0.003)
Dispositional optimism		0.019 (0.121)	0.056 (0.091)
Entrepreneurial self-efficacy		–0.143 (0.097)	–0.072 (0.078)
Hubristic pride		0.138 (0.151)	0.002 (0.125)
Main effects (level 1)			
Interpersonal attraction			
Warmth and likability	2.514*** (0.105)	2.511*** (0.110)	2.517*** (0.107)
Resource seeking			
Resource contributions	2.127*** (0.107)	2.161*** (0.111)	2.092*** (0.109)
Equity consideration			
Equity demand	–0.911*** (0.122)	–0.797*** (0.126)	–1.024*** (0.124)
Moderator (level 2)			
Dark triad		0.292** (0.137)	0.231** (0.116)
Cross-level interaction effects			
Dark triad x interpersonal attraction			
Dark triad x warmth and likability	–0.462*** (0.170)	–0.480*** (0.174)	–0.445** (0.186)
Dark triad x resource seeking			
Dark triad x resource contributions	0.097 (0.207)	0.185 (0.224)	0.009 (0.201)
Dark triad x equity consideration			
Dark triad x equity demand	–0.583*** (0.190)	–0.572*** (0.192)	–0.593*** (0.193)
Observations (no. of participants)	3,296 (206)	1,648 (206)	1,648 (206)
R^2	0.566	-	-
Constant	–6.997*** (0.000)	4.891*** (0.065)	4.834*** (0.058)

Note. In Model 5, we estimated an OLS specification with respondent fixed effects and clustered standard errors at the respondent level to probe potential omitted-variable bias. All time-invariant, person-level controls (age, gender, education, work experience, active search, entrepreneurial passion, social desirability, overconfidence, dispositional optimism, entrepreneurial self-efficacy, hubristic pride, and the dark triad) are absorbed by the individual dummies and thus drop due to collinearity. The attribute effects and the dark triad interaction terms remain identified in this specification, indicating that our main results are not driven by unobserved, person-specific heterogeneity. Model 6 considers the main sample only (Profiles 1-8), while Model 7 reflects the retest sample only (Profiles 9-16). All models are based upon two-level HLM with cluster robust standard errors at the individual level of analysis. Standard errors in parentheses. *$p < 0.1$; **$p < 0.05$; ***$p < 0.01$.

Appendix 3.J *Split by Dark Triad Subdimensions*

DV: Willingness to select	**Model 8** Machiavellianism	**Model 9** Narcissism	**Model 10** Psychopathy
Controls (level 2)			
Age	0.010 (0.011)	0.010 (0.011)	0.010 (0.011)
Gender	0.118 (0.126)	0.118 (0.126)	0.118 (0.126)
Education	0.009 (0.084)	0.009 (0.084)	0.009 (0.084)
Work experience	–0.013 (0.010)	–0.013 (0.010)	–0.013 (0.010)
Active co-founder search	0.092** (0.044)	0.092** (0.044)	0.092** (0.044)
Entrepreneurial passion	0.014 (0.008)	0.014 (0.008)	0.014 (0.008)
Social desirability	–0.130 (0.139)	–0.130 (0.139)	–0.130 (0.139)
Overconfidence	–0.003 (0.003)	–0.003 (0.003)	–0.003 (0.003)
Dispositional optimism	0.015 (0.099)	0.015 (0.099)	0.015 (0.099)
Entrepreneurial self-efficacy	–0.103 (0.080)	–0.103 (0.080)	–0.103 (0.080)
Hubristic pride	0.084 (0.132)	0.084 (0.132)	0.084 (0.132)
Machiavellianism		–0.033 (0.097)	–0.033 (0.097)
Narcissism	0.209** (0.087)		0.209** (0.087)
Psychopathy	0.090 (0.115)	0.090 (0.115)	
Main effects (level 1)			
Interpersonal attraction			
Warmth and likability	2.514*** (0.103)	2.514*** (0.103)	2.514*** (0.103)
Resource seeking			
Resource contributions	2.127*** (0.103)	2.127*** (0.103)	2.127*** (0.103)
Equity consideration			
Equity demand	–0.911*** (0.119)	–0.911*** (0.119)	–0.911*** (0.119)
Moderator (level 2)			
Machiavellianism	–0.033 (0.097)		
Narcissism		0.209** (0.087)	
Psychopathy			0.090 (0.115)
Cross-level interaction effects			
Dark triad x interpersonal attraction			
Subdimension x warmth and likability	–0.111 (0.138)	–0.287** (0.132)	–0.440** (0.171)
Dark triad x resource seeking			
Subdimension x resource contributions	0.116 (0.154)	–0.058 (0.133)	0.158 (0.174)
Dark triad x equity consideration			
Subdimension x equity demand	–0.404*** (0.140)	–0.328* (0.174)	–0.207 (0.160)
Observations (no. of participants)	3,296 (206)	3,296 (206)	3,376 (206)
Constant	4.863*** (0.057)	4.863*** (0.057)	4.863*** (0.057)

Note. Model 8 tests the hypothesized cross-level interaction effects for Machiavellianism, model 9 tests narcissism, and model 10 tests psychopathy instead of the dark triad as moderator. All models are based upon two-level HLM with cluster robust standard errors at the individual level of analysis. Standard errors in parentheses. *$p < 0.1$; **$p < 0.05$; ***$p < 0.01$.

Appendix 4.A *Exemplary Co-Founder Attribute Insights from Face-Validity Interviews*

Attribute	**Insights**
Similarity of venture vision	• *"Vision is highly important (…) it is crucial for us that the vision is shared at least at a co-founder level." (Entrepreneur A)* • *"(…) vision is so essential that it would be incredibly important for me to share it (...) It's truly important to see it jointly." (Entrepreneur E)* • *"That would be an essential point; you must be heading in the same direction." (Entrepreneur F)*
Similarity of personal values	• *"The more values match, the better it is." (Entrepreneur D)* • *"If there is a personal value that I just can't relate to at all, (...) then I don't think that person is the right co-founder at the end of the day, I believe." (Entrepreneur D)* • *"I think what is totally important is that one has a personal—and that has to be the same—value system in place." (Entrepreneur F)*
Domain expertise	• *"I mean, I am looking for someone (...), they should have a high level of expertise in this field." (Entrepreneur C)* • *"Very important (…) I would clearly look into it, in order to be able to build a good team." (Entrepreneur E)*
Network size	• *"If you have connections to potential customers who can really make a significant contribution to the company, then that is extremely valuable. The same goes for investors... Network is incredibly important." (Entrepreneur D)* • *"(…) is always better, one must simply say. (…) it is extremely important (…) if you know one person, that's great, but if you know more, it's even better." (Entrepreneur F)*
Equity demand	• *"If he demands significantly more, especially more than the average, then there must be a very good reason for it." (Entrepreneur A)* • *"I personally would say, as a matter of principle, it's always a better case when the person demands more than they might get." (Entrepreneur C)*

Note. These insights were obtained as part of our nine semi-structured expert interviews that we conducted with entrepreneurs to increase face validity of our experimental design.

Appendix 4.B *Test-Retest Reliability Analysis for Each Conjoint Profile*

Version	Profile	ICC	95% CI
1	1	0.76	[0.23, 0.85]
	2	0.91	[0.85, 0.94]
	3	0.81	[0.69, 0.88]
	4	0.86	[0.77, 0.91]
	5	0.88	[0.80, 0.92]
	6	0.90	[0.84, 0.94]
	7	0.95	[0.92, 0.97]
	8	0.90	[0.84, 0.94]
2	1	0.76	[0.61, 0.86]
	2	0.84	[0.73, 0.90]
	3	0.87	[0.79, 0.92]
	4	0.74	[0.57, 0.84]
	5	0.89	[0.82, 0.93]
	6	0.83	[0.73, 0.90]
	7	0.79	[0.65, 0.87]
	8	0.85	[0.75, 0.91]
3	1	0.80	[0.68, 0.88]
	2	0.92	[0.88, 0.95]
	3	0.84	[0.74, 0.90]
	4	0.98	[0.96, 0.99]
	5	0.85	[0.75, 0.91]
	6	0.86	[0.77, 0.91]
	7	0.68	[0.49, 0.80]
	8	0.84	[0.75, 0.90]

Note. We developed three unique versions of the conjoint experiment to address order biases and thus, report test-retest reliability on a profile-level for each distinct version. ICC = Intraclass Correlation Coefficient (3,k) based test-retest reliability. We follow the workflow of Schueler et al. (2024) to test confidence of our model results.

Appendix 4.C *Overview of Conjoint Workflow Results*

Version	DV: Willingness to select	1st round model	2nd round model	Slope diff. test	Pooled model
1	Similarity of Venture Vision	6.82***	7.13***	–0.31	6.98***
		(1.33)	(0.98)	(1.37)	(0.61)
	Similarity of Personal Values	8.73***	8.98***	–0.25	8.85***
		(0.96)	(1.32)	(1.77)	(0.61)
	Domain Expertise	8.47***	8.47***	0.00	8.74***
		(1.01)	(1.02)	(1.44)	(0.61)
	Network Size	5.37***	4.14***	1.23	4.76***
		(0.81)	(0.77)	(1.12)	(0.61)
	Equity Demand	4.14***	2.62***	1.52	3.38***
		(0.86)	(0.97)	(1.30)	(0.61)
	R^2	0.23	0.22		0.22
2	Similarity of Venture Vision	8.72***	6.78***	+1.94	7.75***
		(1.11)	(0.87)	(1.41)	(1.05)
	Similarity of Personal Values	6.59***	8.21***	–1.61	7.40***
		(1.00)	(0.92)	(1.36)	(0.97)
	Domain Expertise	5.81***	7.12***	–1.31	6.47***
		(0.93)	(1.31)	(1.60)	(0.93)
	Network Size	5.47***	5.15***	+0.32	5.31***
		(0.78)	(0.82)	(1.13)	(0.37)
	Equity Demand	5.20***	2.96*	+2.24	4.08**
		(1.36)	(1.42)	(1.97)	(1.30)
	R^2	0.24	0.22		0.23
3	Similarity of Venture Vision	6.55***	8.75***	–2.20	7.65***
		(0.96)	(0.91)	(1.32)	(1.20)
	Similarity of Personal Values	10.70***	8.87***	+1.84	9.79***
		(1.20)	(0.92)	(1.51)	(1.12)
	Domain Expertise	8.99***	9.18***	–0.19	9.09***
		(0.88)	(0.90)	(1.26)	(0.49)
	Network Size	6.87***	7.17***	–0.30	7.02***
		(0.95)	(0.87)	(1.29)	(0.54)
	Equity Demand	2.53*	3.25**	–0.71	2.89***
		(1.04)	(1.09)	(1.51)	(0.67)
	R^2	0.29	0.30		0.30

Note. Clustered standard errors in parentheses. 1st round model refers to main test profiles to be replicated in the retest (2nd round) model. The results of slope difference tests suggest that there are no significant differences between 1st and 2nd round coefficients across all versions. The pooled model combines the main test (1st round) and the corresponding replication profiles (2nd round). We follow the workflow of Schueler et al. (2024) to test confidence of our model results. *$p < 0.1$; **$p < 0.05$; ***$p < 0.01$.

Appendix 4.D *Predicted Values*

a) Entrepreneurial passion for inventing

Co-Founder Attribute	Level	EP for inventing	Predicted WTO	SE	*p*-Value	95% CI Lower	95% CI Upper
Similarity of venture vision	Low	– 2 S.D.	17.584	1.969	0.000	13.724	21.444
		– 1 S.D.	17.810	1.162	0.000	15.532	20.088
		Mean	18.036	0.691	0.000	16.682	19.390
		+ 1 S.D.	18.262	1.121	0.000	16.065	20.458
		+ 2 S.D.	18.488	1.920	0.000	14.724	22.252
	High	– 2 S.D.	17.588	2.282	0.000	13.116	22.059
		– 1 S.D.	18.743	1.323	0.000	16.150	21.337
		Mean	19.899	0.751	0.000	18.427	21.371
		+ 1 S.D.	21.055	1.282	0.000	18.542	23.568
		+ 2 S.D.	22.211	2.234	0.000	17.833	26.589
Similarity of personal values	Low	– 2 S.D.	17.687	1.874	0.000	14.015	21.360
		– 1 S.D.	17.774	1.122	0.000	15.574	19.973
		Mean	17.860	0.681	0.000	16.526	19.195
		+ 1 S.D.	17.947	1.060	0.000	15.869	20.025
		+ 2 S.D.	18.033	1.800	0.000	14.506	21.561
	High	– 2 S.D.	17.484	2.403	0.000	12.774	22.195
		– 1 S.D.	18.779	1.370	0.000	16.093	21.465
		Mean	20.075	0.755	0.000	18.595	21.554
		+ 1 S.D.	21.370	1.361	0.000	18.703	24.037
		+ 2 S.D.	22.665	2.392	0.000	17.976	27.354
Domain expertise	Low	– 2 S.D.	17.490	1.975	0.000	13.620	21.360
		– 1 S.D.	17.588	1.172	0.000	15.291	19.886
		Mean	17.687	0.711	0.000	16.293	19.080
		+ 1 S.D.	17.785	1.138	0.000	15.555	20.015
		+ 2 S.D.	17.884	1.934	0.000	14.093	21.674
	High	– 2 S.D.	17.682	2.259	0.000	13.254	22.110
		– 1 S.D.	18.965	1.302	0.000	16.412	21.517
		Mean	20.248	0.731	0.000	18.815	21.682
		+ 1 S.D.	21.531	1.273	0.000	19.036	24.027
		+ 2 S.D.	22.815	2.226	0.000	18.452	27.177

Note. We report the predicted values for the significant interaction terms of our main analysis (Table 4.3). "Low" levels represent – 0.5 and "high" levels represent 0.5 of co-founder attributes. Lower (–2 S.D.; –1 S.D.), mean, and higher (+1 S.D.; +2 S.D.) levels of entrepreneurial passion for inventing represent group-mean-centered values of the passion in our sample. Higher (+2 S.D.) values of entrepreneurial passion for inventing fall slightly outside the theoretical scale range and should therefore be interpreted as extrapolated values used to illustrate the functional form of the interaction. WTO = willingness to offer equity in %; SE = standard error; CI = confidence interval.

Appendix 4.D Predicted Values (continued)

b) Entrepreneurial passion for founding

Co-Founder Attribute	Level	EP for founding	Predicted WTO	SE	*p*-Value	95% CI Lower	95% CI Upper
Similarity of venture vision	Low	– 2 S.D.	19.741	2.423	0.000	14.992	24.490
		– 1 S.D.	18.888	1.357	0.000	16.229	21.548
		Mean	18.036	0.691	0.000	16.682	19.390
		+ 1 S.D.	17.183	1.334	0.000	14.569	19.797
		+ 2 S.D.	16.330	2.397	0.000	11.633	21.028
	High	– 2 S.D.	23.918	2.755	0.000	18.519	29.317
		– 1 S.D.	21.909	1.534	0.000	18.901	24.916
		Mean	19.899	0.751	0.000	18.427	21.371
		+ 1 S.D.	17.890	1.489	0.000	14.972	20.808
		+ 2 S.D.	15.881	2.704	0.000	10.581	21.180
Similarity of personal values	Low	– 2 S.D.	19.456	2.183	0.000	15.177	23.735
		– 1 S.D.	18.658	1.225	0.000	16.257	21.059
		Mean	17.860	0.681	0.000	16.526	19.195
		+ 1 S.D.	17.062	1.287	0.000	14.540	19.585
		+ 2 S.D.	16.265	2.254	0.000	11.848	20.682
	High	– 2 S.D.	24.203	3.062	0.000	18.201	30.204
		– 1 S.D.	22.139	1.697	0.000	18.812	25.465
		Mean	20.075	0.755	0.000	18.595	21.554
		+ 1 S.D.	18.011	1.564	0.000	14.945	21.076
		+ 2 S.D.	15.946	2.917	0.000	10.230	21.663

Note. We report the predicted values for the significant interaction terms of our main analysis (Table 4.3). "Low" levels represent – 0.5 and "high" levels represent 0.5 of co-founder attributes. Lower (–2 S.D.; –1 S.D.), mean, and higher (+1 S.D.; +2 S.D.) levels of the dark triad represent group-mean-centered values of the dark triad in our sample. Lower (–2 S.D.) values of the dark triad fall slightly outside the theoretical scale range and should therefore be interpreted as extrapolated values used to illustrate the functional form of the interaction. WTO = willingness to offer equity in %; SE = standard error; CI = confidence interval.

Appendix 4.E *Average Marginal Effects of Cross-Level Interactions*

Entrepreneurial passion for inventing

					95% CI	
Co-Founder Attribute	EP for inventing	dy/dx	SE	*p*-Value	Lower	Upper
Similarity of venture vision *in the presence of EP for inventing:*	– 2 S.D.	0.004	0.947	0.997	–1.853	1.860
	– 1 S.D.	0.933	0.559	0.095	–0.163	2.030
	Mean	1.863	0.363	0.000	1.151	2.575
	+ 1 S.D.	2.793	0.595	0.000	1.627	3.960
	+ 2 S.D.	3.723	0.990	0.000	1.784	5.663
Similarity of personal values *in the presence of EP for inventing*	– 2 S.D.	–0.203	1.142	0.859	–2.441	2.035
	– 1 S.D.	1.006	0.619	0.104	–0.207	2.219
	Mean	2.214	0.342	0.000	1.544	2.885
	+ 1 S.D.	3.423	0.711	0.000	2.029	4.817
	+ 2 S.D.	4.632	1.245	0.000	2.192	7.071
Domain expertise *in the presence of EP for inventing:*	– 2 S.D.	0.192	0.858	0.823	–1.489	1.873
	– 1 S.D.	1.377	0.497	0.006	0.402	2.352
	Mean	2.562	0.361	0.000	1.853	3.270
	+ 1 S.D.	3.746	0.621	0.000	2.530	4.963
	+ 2 S.D.	4.931	1.005	0.000	2.960	6.902

Entrepreneurial passion for founding

					95% CI	
Co-Founder Attribute	EP for founding	dy/dx	SE	*p*-Value	Lower	Upper
Similarity of venture vision *in the presence of EP for inventing:*	– 2 S.D.	4.177	1.014	0.000	2.189	6.165
	– 1 S.D.	3.020	0.608	0.000	1.829	4.212
	Mean	1.863	0.363	0.000	1.151	2.575
	+ 1 S.D.	0.707	0.562	0.209	–0.395	1.808
	+ 2 S.D.	–0.450	0.960	0.639	–2.332	1.432
Similarity of personal values *in the presence of EP for inventing*	– 2 S.D.	4.747	1.549	0.002	1.712	7.782
	– 1 S.D.	3.481	0.860	0.000	1.795	5.166
	Mean	2.214	0.342	0.000	1.544	2.885
	+ 1 S.D.	0.948	0.728	0.193	–0.479	2.375
	+ 2 S.D.	–0.318	1.407	0.821	–3.076	2.439

Note. We present the average marginal effects for the significant cross-level interactions of our main analysis (Table 4.3). Lower (–2 S.D.; –1 S.D.), mean, and higher (+1 S.D.; +2 S.D.) levels of entrepreneurial passion represent the respective group-mean-centered values of passion in our sample. Higher (+2 S.D.) values of EP fall slightly outside the observed range and should therefore be interpreted as extrapolated values used to illustrate the functional form of the interaction.

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Affidavit

Ich erkläre hiermit, dass ich die vorgelegten und nachfolgend aufgelisteten Aufsätze selbstständig und nur mit den Hilfen angefertigt habe, die im jeweiligen Aufsatz angegeben oder zusätzlich in der nachfolgenden Liste aufgeführt sind. In der Zusammenarbeit mit den angeführten Koautoren war ich mindestens anteilig beteiligt. Bei den von mir durchgeführten und in den Aufsätzen erwähnten Untersuchungen habe ich die Grundsätze guter wissenschaftlicher Praxis, wie sie in der Satzung der Justus Liebig-Universität Gießen zur Sicherung guter wissenschaftlicher Praxis niedergelegt sind, eingehalten.

I hereby declare that I completed the papers submitted and listed hereafter independently, with only the forms of support mentioned in the relevant paper or in the following supplementary list. When working with the authors listed, I contributed no less than a proportionate share of the work. In the analyses that I have conducted and to which I refer in the papers, I have followed the principles of good academic practice, as stated in the Statute of Justus Liebig University Giessen for Ensuring Good Scientific Practice.

Giessen, August 5, 2026

(Yannick Nicolai Amend)

Included Papers

1. **Amend, Y. N.**, Klein, A., & Schuhmacher, M.C. (2026). “Dark Traits, Bright Ventures? Meta-Analytic Evidence on the Effects of the Dark Triad on (Social) Entrepreneurial Intentions” (see Chapter 2).

2. **Amend, Y. N.**, Ademi, P., Wood, M.S., & Schuhmacher, M.C. (2026). “Co-Founder Selection from a Marriage Market Perspective: How the Dark Triad Shapes Judgments of Interpersonal Attraction, Resources, and Equity Demand” (see Chapter 3).

3. **Amend, Y. N.**, Ademi, P., & Schuhmacher, M.C. (2026). “Through the Passionate Eye: How Entrepreneurial Passion Shapes Founders’ Equity Offers to Prospective Co-Founders” (see Chapter 4).