

Appearance-Based Legitimate Distinctiveness: Founder Attractiveness, Gender, and Venture Evaluations

Entrepreneurship Theory and
Practice
1–35

© The Author(s) 2026

Article reuse guidelines:

sagepub.com/journals-permissions

DOI: 10.1177/10422587261485961

journals.sagepub.com/home/etp



Henrik Lekkas¹ , Torben Antretter¹ ,
Ivo Blohm¹ , Charlotta Sirén¹ , and
Joakim Wincent^{1,2}

Abstract

This study proposes a way to reconcile the beauty premium and beauty-is-beastly arguments by suggesting that founder appearance is processed through two separable and countervailing channels: perceived legitimacy and perceived distinctiveness. We further theorize that in start-ups, the relationship is gendered, because women do not fit the entrepreneurial prototype, limiting their perceived legitimacy. A field study of 359 founders supports our theorizing that male founders are evaluated best when moderately attractive, while female founders see no significant attractiveness effects. A preregistered experiment with 771 participants, using AI-manipulated attractiveness, does not confirm these patterns but supports our theorizing about both mediators.

Keywords

entrepreneurial finance, manuscripts: specialty areas, angel, investment, experimental methods/simulation, research methods

Introduction

Attractiveness is widely understood to be an advantage. Attractive people are more likely to be hired, promoted, and well compensated than their less attractive counterparts (Eagly et al., 1991; Hamermesh, 2011; Nault et al., 2020). They also tend to be evaluated more positively in job interviews (e.g., Dipboye et al., 1975; Ruffle & Shtudiner, 2015) and are perceived as more capable and persuasive (e.g., Andreoni & Petrie, 2008; Johnson et al., 2010). As a result, attractive individuals generally do better in work contexts (Hamermesh & Biddle, 1993; Nault et al., 2020). However, entrepreneurship presents a different picture, and most successful entrepreneurs are not known for their good looks. For instance, Jeff

¹University of St.Gallen, Switzerland

²Hanken School of Economics, Finland

Corresponding Author:

Henrik Lekkas, University of St.Gallen, Dufourstrasse 40a, St.Gallen CH-9000, Switzerland.

Email: henrik.lekkas@unisg.ch

Bezos has been described as a “balding nerd” (Yahoo! Finance, 2023), Bill Gates as “disheveled” (Big Think, 2024), and Palmer Luckey as a “geek” (The Times, 2025). Why does attractiveness fail to confer its usual benefits in entrepreneurship?

As traditional attractiveness arguments centered on beauty and sexual attraction do not explain the emergence of this entrepreneurial prototype, we apply a different theoretical perspective: legitimate distinctiveness (Navis & Glynn, 2011). Based on this view, we note that attractiveness may not align with investors’ prototypical image of a venture founder, a technically brilliant but visually unassuming disruptor, rather than someone known for their good looks. Our framework is agnostic to the direction of the appearance-based prototype deviation (i.e., whether they are uncommonly attractive or unattractive). It merely observes the degree to which individuals deviate from the (moderately attractive) appearance-based prototype.

It notes that such deviations move legitimacy and distinctiveness in opposite directions: departure from the prototype enhances distinctiveness (defined as differing from category norms; Barlow et al., 2019), while undermining perceived legitimacy, which stems from conforming to prototypical identities (Navis & Glynn, 2011). Separating these two channels matters because a study capturing only their net effect will only show whichever effect dominates the setting. As such, the framework emphasizes the inherent tension that entrepreneurs face between fitting in and standing out (Brewer, 1991). This can be crucial for founders: when they appear insufficiently legitimate in the eyes of potential investors (e.g., by being too attractive), they may be perceived as not fitting the prototype of a credible founder (Antretter et al., 2025) and, consequently, their ventures may be viewed more skeptically. As legitimacy is paramount in early venture evaluations (Fisher et al., 2017), founders closer to the (only moderately attractive) prototype may thus be evaluated more favorably than those at either extreme of the attractiveness scale.

The issue might be further complicated by gender, as women are penalized in work evaluations due to two distinct forms of bias (Eagly & Karau, 2002): First, women receive lower evaluations when they do not fit the prototype. Second, even when women display traits that align with the prototype, they receive less recognition. In our context, this suggests that because female entrepreneurs cannot fully match the image of a prototypical founder (Balachandra et al., 2019; Kanze et al., 2020), they are perceived as less legitimate in general. In addition, it suggests that female entrepreneurs gain less legitimacy from displaying otherwise prototypical attributes (e.g., moderate attractiveness) because those cues are filtered through gendered expectations (Brush et al., 2019). On the other hand, because female entrepreneurs are already perceived as peripheral to the prototype (Kanze et al., 2018), they are not penalized as much as their male counterparts if their attractiveness significantly deviates from the prototype.

In this study, we propose that moderately attractive founders receive better venture evaluations than those at either end of the attractiveness spectrum. Further, we suggest that perceived legitimacy and perceived distinctiveness mediate this relationship: because the prototypical entrepreneur is moderately attractive, we expect that perceived legitimacy is higher for entrepreneurs of average attractiveness than those who are very attractive or very unattractive. Perceived distinctiveness, in contrast, is likely to increase as entrepreneurs deviate from the mean, so that founders who are very attractive or very unattractive are perceived as the most distinct. However, because legitimacy matters more than distinctiveness in entrepreneurship (Fisher et al., 2016), founders of moderate attractiveness are likely to receive the best evaluations overall. Furthermore, we expect this pattern to be driven primarily by male entrepreneurs. For female entrepreneurs, we expect the relationship

between founder attractiveness and venture evaluations to be comparatively flat, as women probably cannot realize the legitimacy benefits of moderate attractiveness due to their gendered mismatch with the prevailing male entrepreneurial prototype.

We tested our predictions in a field study and a randomized experiment. In our field study, we used an artificial intelligence (AI) model to rate the attractiveness of 359 founders pitching on the reality TV show *Shark Tank*, and found support for the hypothesized relationship between attractiveness and venture evaluation as well as for the gender moderation (i.e., the effect is strong for male entrepreneurs but disappears for female entrepreneurs). To isolate causality and identify the underlying mechanisms of perceived legitimacy and distinctiveness, we also ran an experimental study with 771 participants recruited via *Prolific* that uses generative AI to produce photorealistic founder images with different levels of attractiveness. Here, we found evidence of mediation by perceived legitimacy (partially supported) and distinctiveness (fully supported), but not for our overarching main relationship or the gender moderation.

This research makes four key contributions. First, it offers an explanation for conflicting findings in the attractiveness literature, which oscillate between claims that “beauty is beastly” (Heilman & Saruwatari, 1979; Johnson et al., 2010, p. 301) and that there is a “beauty premium” (Colombo et al., 2022, p. 491; Schreiber et al., 2024; Seigner & Milanov, 2023). We show that appearance is processed through two separable and countervailing channels: legitimacy, which rises with attractiveness at a diminishing rate, and distinctiveness, which peaks at both extremes. Because legitimacy carries the greater weight, a study measuring only the net effect will register whichever channel dominates its setting; the opposing channel becomes observable only once the two are measured apart. Second, it advances gender research in entrepreneurial finance by suggesting that, when gendered prototypes are very salient, women might not be evaluated the same way as men (Balachandra et al., 2019; Kanze et al., 2018; Schreiber et al., 2024). Third, it extends legitimate distinctiveness theory (e.g., Navis & Glynn, 2011; Van Werven et al., 2015) by evaluating not venture-level strategies (e.g., Taeuscher et al., 2021; Younger et al., 2025) but founder-level appearance-based prototypes. This illustrates how appearance can act as a heuristic for legitimacy and distinctiveness in low-information contexts, such as venture investing. Finally, it makes a methodological contribution by applying an AI-based approach to measure attractiveness (Antretter et al., 2025; Matthews et al., 2024), thereby addressing recent calls for more rigorous, scalable methods for studying appearance-based biases and the role of AI in entrepreneurship research (Blohm et al., 2022; Grimes et al., 2023; Lévesque et al., 2022).

Theory and Hypotheses

A great deal of prior research has explored the social and economic advantages of physical attractiveness, often linking beauty to positive life outcomes (for a review, see Nault et al., 2020). These studies typically attribute attractiveness effects to evolutionary or aesthetic mechanisms like sexual desirability (Schreiber et al., 2024), likability (Eagly et al., 1991), and the halo of “what is beautiful is good” (Dion et al., 1972, p. 285). While such work has provided valuable insights into the benefits of beauty, our interest lies elsewhere. We focus not on the appeal of attractiveness but on the effect of deviations from attractiveness norms. In other words, we look at how attractiveness and unattractiveness as visible departures from the moderately attractive entrepreneurial prototype affect perceived legitimacy and distinctiveness.

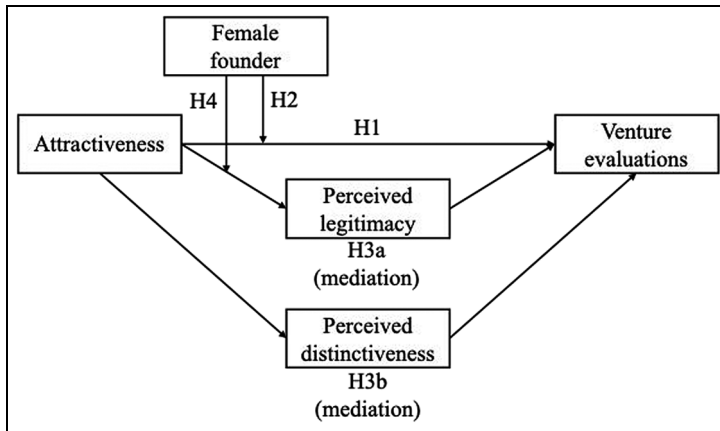


Figure 1. A gendered model of founder attractiveness and legitimate distinctiveness in venture evaluations.

In the venture-pitch context, legitimacy and distinctiveness have been primarily studied as the result of carefully constructed venture pitches (Lounsbury & Glynn, 2001; Younger et al., 2025) or strategically crafted product descriptions (Barlow et al., 2019; Chan et al., 2021). However, most venture details and plans are hypothetical, and pitched ventures often lack customers, revenue, or even functional teams (Maxwell et al., 2011). Given this fundamental underlying uncertainty, investors seldom read business plans before meeting entrepreneurs (Antretter et al., 2025; Wesemann Lekkas, Antretter, Shepherd, & Wincent, 2025) and tend to form their first impressions when meeting the founder (Huang et al., 2023; Mason & Stark, 2004). Therefore, perceptions of legitimacy and distinctiveness are often based on surface-level visible cues (Brewer, 2012; Navis & Glynn, 2011), of which the entrepreneur's appearance is the most immediate (Blank & Dorf, 2012; Brooks et al., 2014).

In this article, we develop a corresponding theory of appearance-based legitimate distinctiveness in venture pitches. We argue that deviating from average attractiveness creates a trade-off: it boosts perceived distinctiveness but erodes perceived legitimacy. As the penalties from lost legitimacy tend to outweigh the gains from distinctiveness, we propose that moderately attractive founders tend to receive higher venture evaluations than those at either end of the attractiveness spectrum. Furthermore, we propose a gender moderation: because female founders can never fully match the (male) entrepreneurial prototype (Balachandra et al., 2019), they gain less legitimacy from average attractiveness. As a result, the relationship is likely weaker for women. Figure 1 illustrates our gendered model of legitimate attractiveness in venture evaluations.

The Effects of Prototype Deviation for Perceived Legitimacy and Distinctiveness

In this section, we discuss the mechanisms underlying the relationship between founder appearance and venture evaluations from a prototype-fit perspective. We first explain how looking like or unlike the (moderately attractive male) prototype affects perceived legitimacy and perceived distinctiveness. Then, we clarify that because new ventures depend primarily on perceived legitimacy (Fisher et al., 2017; Zimmerman & Zeitz, 2002), the

legitimacy benefits of being moderately attractive outweigh the distinctiveness benefits of being very attractive or very unattractive. As a result, founders who correspond most to the entrepreneurial prototype (i.e., are moderately attractive) tend to be evaluated better than those who deviate from it.

Why Matching Expected Attractiveness Makes Entrepreneurs Appear More Legitimate. A crucial task for entrepreneurs is to appear legitimate (Zimmerman & Zeitz, 2002), which means that they must appear close to normative expectations to seem credible, appropriate, and fitting (Navis & Glynn, 2011). In the context of attractiveness, this suggests that the highest perceived legitimacy is conferred on individuals whose appearance is closest to the prototype because they seem the most familiar (Langlois & Roggman, 1990; Winkielman et al., 2006). Indeed, psychology studies show that when an individual resembles what is “normal,” audiences can categorize them with ease (Halberstadt & Rhodes, 2000), which generates acceptance, trust, and likability (Sofer et al., 2015; Zebrowitz et al., 2007). Alignment with accepted prototypes makes a person feel “right” to others without conscious deliberation (Reber et al., 2004). Halberstadt and Rhodes (2000, p. 285) summarize this by saying that “humans have a general attraction to prototypical exemplars.” Such judgments occur in milliseconds and can durably shape long-term impressions of another person (Todorov et al., 2005; Willis & Todorov, 2006). Therefore, legitimacy in a role is generated through “strong links to the prototypical features” (Younger et al., 2025, p. 4).

In entrepreneurship, years of media portrayals have established the “geek entrepreneur” as the prototype (Mendick et al., 2023; Wesemann Lekkas, Antretter, Souitaris, Shepherd, & Wincent, 2025). Mark Zuckerberg, with his understated looks and his focus on his work rather than his appearance, especially during the early stages of his career, serves as an example of this prototype (Forbes, 2016; Seigner & Milanov, 2023). Such portrayals reinforce the expectation that real entrepreneurs are not overly attractive or unattractive, and help average-looking founders be processed more fluently because they conform to familiar visual norms (Halberstadt & Rhodes, 2000; Langlois & Roggman, 1990). This perceptual fluency produces an intuitive sense of familiarity and trust (Sofer et al., 2015; Zebrowitz et al., 2007), which makes investors feel aligned with the entrepreneur and gets them excited about the venture (Higgins et al., 2021; Rossignac-Milon et al., 2021, 2024). Achieving this alignment is of critical importance for entrepreneurs, and has even been referred to as the “epistemic glue” that holds pitches together (Rossignac-Milon & Higgins, 2018, p. 67; Wesemann Lekkas, Antretter, Souitaris, Shepherd, & Wincent, 2025).

Therefore, when founders match the appearance-based prototype, evaluators experience processing ease and the impression that this person feels right (Alter & Oppenheimer, 2009; Reber et al., 2004). This intuitive fit reduces evaluative strain and normative dissonance (Brewer, 2012; Winkielman et al., 2006), which enhances acceptance and perceived credibility (Antretter et al., 2019; Bitektine et al., 2020; Tost, 2011). In contrast, founders who deviate considerably from the appearance-based prototype by being unusually attractive or unattractive are less easily categorized, lowering fluency and, thereby, perceived legitimacy.

Why Deviating From Expected Attractiveness Makes Entrepreneurs Seem Distinct. However, legitimacy is not everything. Entrepreneurs who deviate from appearance-based prototypes appear *distinct*, which draws attention and increases memorability (Schreiber et al., 2024). Research on impression formation and market categorization shows that seeming distinct or novel can help individuals capture scarce resources in crowded evaluative settings (Navis

& Glynn, 2011; Taeuscher et al., 2021). Especially when available information is limited, appearing distinct may signal boldness and authenticity, which can foster investors' curiosity and engagement (Antonakis et al., 2011; Colombo et al., 2022). Distinctive entrepreneurs are also more likely to be remembered, talked about, and shared among audiences, all of which are important precursors of resource mobilization in early-stage ventures (Clingingsmith & Shane, 2018; Taeuscher et al., 2021). However, we expect the overall effect of appearance-based prototype deviations on distinctiveness to be relatively muted. Because the whole startup sector is centered on disruption and change, all entrepreneurs seem fairly distinct when compared to the overall population. We argue that their appearance will not add much to this distinctiveness perception.

Perceived Legitimacy Dominates the Overall Effect. Because the trade-off is primarily defined by perceived legitimacy, which is highest for moderately attractive founders, we expect a peak in venture evaluations at moderate attractiveness. At very low or very high levels of founder attractiveness, gains in distinctiveness do not make up for the loss in perceived legitimacy, and venture evaluations remain relatively low. At moderate attractiveness, by contrast, founders most closely match the prototype, yielding the highest venture evaluations. In short, distinctiveness benefits are typically too small to justify breaking out of what Deephouse (1999, p. 147) calls the “range of acceptable deviation” in legitimacy. Formally, we propose:

Hypothesis 1 (H1): Moderately attractive founders tend to receive higher venture evaluations than founders who are very attractive or very unattractive.

Gendered Perceptions of Attractiveness

Developing our model further, we propose that gender moderates the relationship between attractiveness and perceived legitimacy. We argue that the perceived legitimacy bonus for moderately attractive founders is less pronounced for female founders. We motivate this by building on the gender dimension of the attractiveness literature (Nault et al., 2020), which proposes that two mechanisms affect the evaluation of women (Eagly & Karau, 2002).

The first mechanism concerns baseline prototype fit. Gender is among the earliest and strongest categorical cues that we observe upon encountering another person (Eagly & Karau, 2002), and it shapes expectations and role-based interpretations of competence, agency, and leadership (Fiske et al., 2002). In entrepreneurship, the dominant prototype remains that of a “male heroic figure” (Seigner & Milanov, 2023, p. 8), which women cannot match (Balachandra et al., 2019; Kanze et al., 2020; Malmström et al., 2017). Consequently, female founders tend to be perceived as less legitimate, causing them to receive less venture funding (Bittner & Lau, 2021).

The second mechanism is that women receive less credit for conforming to otherwise valued parts of a specific prototype. For example, even though attractiveness is associated with better corporate-hiring outcomes (Nault et al., 2020), attractive female applicants do not receive the same benefits as attractive male applicants, especially when the job is stereotyped as masculine (Ruffle & Shtudiner, 2015). In the context of entrepreneurship, research shows that even when women exhibit behaviors that are consistent with the male prototype, they benefit less than men from those behaviors (Balachandra et al., 2019; Kanze et al., 2018). For example, gendered framing enhances evaluations for male founders but not female founders (Gupta et al., 2014). We extend these insights to appearance-based

prototype deviations to argue that when women display the prototypical level of attractiveness, they gain less legitimacy than male entrepreneurs.

This double disadvantage (i.e., weaker prototype fit and diminished benefits from conformity) harms evaluations of female founders by affecting investors' cognitive processes. As female founders evoke less intuitive prototype-consistent familiarity, subsequent information is processed less fluently (Bitektine et al., 2020; Mitteness et al., 2016), which leads to hesitation, reduced perceived coherence, and lower evaluations (Langlois & Roggman, 1990; Winkielman et al., 2006). These mechanisms also align with research showing that women's appearance can generate perceived ambiguity, which suppresses intuitive judgments of legitimacy (Heflick et al., 2011; Heflick & Goldenberg, 2009).

Overall, these arguments suggest that female founders are perceived as less legitimate due to their mismatch with the entrepreneurial prototype, which even corresponding to the attractiveness prototype cannot solve (Eagly & Karau, 2002; Heilman, 2012). In other words, even moderate levels of attractiveness (which create ideal prototype fit for male founders) fail to evoke strong intuitive "fit" responses for female founders (Reber et al., 2004; Winkielman et al., 2006). We propose:

Hypothesis 2 (H2): The relationship between founder attractiveness and venture evaluations is moderated by founder gender, such that the moderate attractiveness benefits are smaller for female founders than for male founders.

Mediation and Moderation Mechanisms of Legitimacy and Distinctiveness

When developing our overarching theory, we proposed legitimacy and distinctiveness as pathways through which attractiveness affects venture evaluations. Summarizing these theorized effects, we first suggested that perceived legitimacy is generated when entrepreneurs align with the prevailing founder prototype (Wesemann Lekkas, Antretter, Souitaris, Shepherd, & Wincent, 2025), and that it creates beneficial impressions of perceptual fluency and fit (Navis & Glynn, 2011). Perceived legitimacy should therefore be highest for entrepreneurs of moderate attractiveness, and high perceived legitimacy should have an overall positive effect on venture evaluations. We propose:

Hypothesis 3a (H3a): Perceived legitimacy mediates the relationship between founder attractiveness and venture evaluations, such that moderately attractive founders are perceived as more legitimate than founders who are very attractive or very unattractive, and higher perceived legitimacy is associated with better venture evaluations.

Moreover, we proposed that perceived distinctiveness is higher at the two extremes of the attractiveness spectrum (Schreiber et al., 2024), and also has a positive effect on venture evaluations (Navis & Glynn, 2011). Founders that deviate sharply from the prototype (whether very attractive or unattractive) stand out and are encoded as memorable rather than generic. This distinctiveness is an asset in investor evaluations: investors reward ventures that signal differentiation, novelty, and a defensible competitive position (Navis & Glynn, 2011; Taeuscher et al., 2021). The implication runs counter to the prior mechanism: where perceived legitimacy is bestowed upon those matching the prototype, distinctiveness materializes at the tails. We propose:

Hypothesis 3b (H3b): Perceived distinctiveness mediates the relationship between founder attractiveness and venture evaluations, such that founders who are very attractive or very unattractive are perceived as more distinctive than moderately attractive founders, and higher perceived distinctiveness is associated with better venture evaluations.

Finally, moving our gender theorizing from H2 to the mechanism level, we expect gender to moderate the link between founder attractiveness and perceived legitimacy. As the prototype is male (Bittner & Lau, 2021), female founders face a mismatch that moderate looks alone cannot resolve (Balachandra et al., 2019; Kanze et al., 2018). Therefore, shifts in attractiveness do not meaningfully change the extent to which women are perceived as fitting the prototype. As a result, appearance-based prototype deviations affect women less than men. This reduces both the benefits and the costs of attractiveness-prototype violations, and reduces legitimacy benefits at moderate attractiveness for female founders. We propose:

Hypothesis 4 (H4): The positive effect of moderate (vs. low or high) attractiveness on perceived legitimacy is weaker for female founders than for male founders.

Methods and Analyses

To examine how founder attractiveness shapes venture evaluations and how this effect differs depending on the founder's gender, we utilize a multimethod research design (e.g., Wellman et al., 2023). In Study 1, we used field data from the reality TV show *Shark Tank* to test the main pattern and the gender moderation (H1 and H2). Study 2 is a preregistered between-subjects experiment designed to isolate causal mechanisms (replicating the H1 and H2 tests), and to test whether perceived legitimacy and distinctiveness mediate the link between attractiveness and venture evaluations (H3a, H3b, and H4).

Study 1: *Shark Tank*

This study draws on a large, gender-balanced entrepreneurship sample taken from the reality TV show *Shark Tank*. On this show, entrepreneurs pitch to a panel of prominent investors (the “sharks”) looking to make equity investments between 10,000 and 500,000 U.S. dollar (USD). We collected data for all 895 *Shark Tank* pitches made across 11 seasons and 246 episodes from 2009 to 2019. *Shark Tank* data has been used in previous research to, for example, investigate gender penalties (Liao et al., 2023), entrepreneurs' rhetoric (Sanchez-Ruiz et al., 2021), and physical appearance (Antretter et al., 2025; Boerner et al., 2025; Huang et al., 2023). We collected information on the ventures from *Shark Tank*'s videos, companies' websites, and the entrepreneurs' social-media profiles. We managed to collect all required variables for 795 of the 895 *Shark Tank* pitches (88.8%). Because our dependent variable is the funding amount, we restrict the analysis to the 441 of these that received an investment (55.5%). We then exclude 72 mixed-gender founding teams (16.3%), since our theory concerns an individual founder's gender and attractiveness, and 10 pitches by children who lie outside our theorizing (2.3%). This leaves a final sample of 359 ventures.

As many ventures did not obtain funding from the investors, we adopted a two-stage Heckman sample-selection model (Heckman, 1979). The first-stage regression focused on predicting the probability that the focal venture received an investment. In line with prior venture-pitch research using *Shark Tank* data, our Heckman selection variable is relative

investor tonality (also see Blaseg & Hornuf, 2024), which measures the investor sentiment on a particular day relative to the overall average sentiment in the show. From this model, we calculated the inverse Mills ratio for each venture, which we included as a control in our second-stage ordinary least squares regression models to account for sample-selection bias (Heckman, 1979).

Dependent Variable: Venture Evaluation. We followed established practice and used the natural logarithm + 1 of funds raised in USD as our measurement of venture evaluations (Kanze et al., 2018; Souitaris et al., 2023).

Independent Variable: Founder Attractiveness. Our main independent variable is founder attractiveness. Since attractiveness is a subjective concept, research usually measures it using small groups of human raters (e.g., Balachandra et al., 2019; Cao et al., 2020). However, having a small number of people subjectively rate attractiveness limits the measure's external validity. Recent advancements in AI have shown that machines can produce scalable, valid, and highly reliable ratings of attractiveness (Liang et al., 2018; Rothe et al., 2016). To address the need for measurement approaches with higher transparency and external validity, we used large-scale attractiveness datasets to train a neural network that predicts the attractiveness of entrepreneurs based on images. More specifically, we built upon Google's *NASNetMobile* infrastructure (Zoph et al., 2018) and trained an Artificial Neural Network (ANN) to analyze face data from images of entrepreneurs. We fine-tuned the ANN for our task using the *SCUT-FBP-5500* dataset for "facial beauty prediction" (Liang et al., 2018) as well as the *Chicago Face Database* (Ma et al., 2015; see Appendix 1 for details).

We focused on the lead entrepreneur who took the dominant role in pitching the venture. For each pitch, we followed Huang et al. (2023) and took a video still (i.e., screenshot in frontal pose), cropped the faces, and fed these facial images into our ANN. The resulting score took a value between 1 and 5, with 1 being the least attractive and 5 being the most attractive.

Moderator: Founder Gender. Two independent coders manually coded founder gender from the facial images from the *Shark Tank* pitches. Men were coded 0, and women were coded 1. Inter-coder agreement was 100%.

Control Variables. We controlled for several variables known to affect venture evaluations. At the founder level, we controlled for *race*, *age*, and *dress formality*. We first analyzed the lead entrepreneurs' facial images using the AI application *deepface* (Serengil & Ozpinar, 2020, 2021) to capture their *race* and *age*. Race represented the entrepreneurs' predicted probability of being non-white, and age captured their predicted age in years at the time of the pitch. We also manually coded *dress formality*, which captured whether an entrepreneur's clothes were casual, business casual, or formal (Wesemann Lekkas, Antretter, Souitaris, Shepherd & Wincent, 2025). We controlled for this factor because clothes can affect perceptions of attractiveness (Lennon, 1990).

At the venture level, we controlled for *industry* by including dummies that classified the ventures by industry codes based on their description on the *Shark Tank* website (Antretter et al., 2025; Huang et al., 2023). Finally, we controlled for the *Shark Tank event* to capture program information that changed over the span of the show (Sanchez-Ruiz et al., 2021).

Table 1. Descriptive Statistics and Correlations of Study 1 (*Shark Tank*).

#	Title	Mean	SD	Min	Max	1	2	3	4	5
1	Venture evaluation	12.14	0.90	10	15					
2	Attractiveness	2.72	0.37	1.89	4.06	−0.102				
3	Gender (female = 1)	0.30	0.46	0	1	−0.194	0.042			
4	Age	35.33	7.98	18	65	0.119	−0.126	−0.218		
5	Race (white = 0)	0.15	0.36	0	1	0.010	−0.043	0.016	−0.081	
6	Dress formality	1.73	0.76	1	3	−0.210	0.116	0.289	0.045	0.085

Note. $N = 359$; all correlations with $|r| > .104$ are significant at $p < .05$.

Table 2. Regression Results of Study 1 (*Shark Tank*).

Title	Model 1		Model 2		Model 3		Model 4	
	β	SE	β	SE	β	SE	β	SE
Attractiveness			−.064	0.057	−.014	0.059	.042	0.072
Attractiveness ²					−.088*	0.035	−.210***	0.054
Attractiveness ² $\times$ Gender							.216**	0.072
Gender (female = 1)	−.253*	0.113	−.270*	0.114	−.220	0.115	−.439**	0.135
Age	.018*	0.007	.019**	0.007	.018*	0.007	.016*	0.007
Race (white = 0)	.079	0.136	.084	0.136	.062	0.135	.001	0.136
Dress formality	−.151*	0.067	−.145*	0.068	−.164*	0.068	−.166*	0.067
Event	Included		Included		Included		Included	
Industry	Included		Included		Included		Included	
Inverse Mills ratio	−.565	0.335	−.749*	0.373	−.717	0.370	−.650	0.367
Constant	12.106***	0.441	12.298***	0.472	12.383***	0.470	12.452***	0.467
Observations	359		359		359		359	

Note. $N = 359$.

* $p < .05$. ** $p < .01$. *** $p < .001$.

Results. Table 1 reports descriptive statistics and correlations. Table 2 reports the results from the second stage of our Heckman model. Model 1 includes only the control variables. Model 2 introduces the linear effect of attractiveness ($\beta = -.064$; $p = .261$). Model 3 introduces the quadratic term of attractiveness, which is significant ($\beta = -.088$; $p = .012$) and indicates that moderately attractive founders receive higher venture evaluations than founders at low or high levels of attractiveness. Moreover, marginal effects of attractiveness evaluated at the lower and upper bounds of the observed data indicate a positive and significant slope at very low levels of attractiveness ($\beta = .371$, $p = .042$), a slope not significantly different from zero at the mean ($\beta = -.014$, $p = .810$), and a negative and significant slope at very high levels of attractiveness ($\beta = -.657$, $p = .007$). The highest evaluations are also very close to the mean level of attractiveness (-0.08 standard deviations [SDs]). These results support H1. Figure 2 plots the relationship.

Model 4 introduces founder gender and its interaction with the quadratic term of attractiveness, which is positive and significant ($\beta = .216$; $p = .003$), indicating that women and men experience different patterns of results. Indeed, for female founders, we find no significant results for either the linear term ($\beta = -.095$, $p = .285$) or the quadratic term

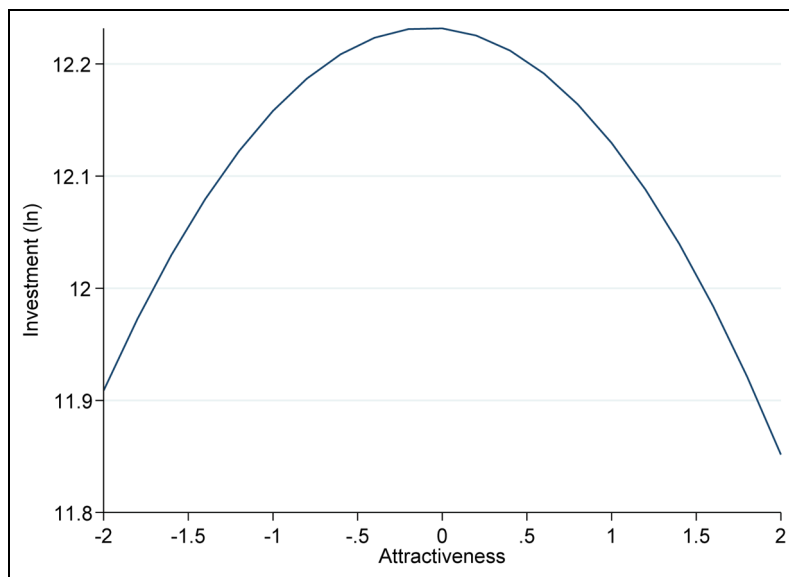


Figure 2. Relationship between founder attractiveness and venture evaluations in Study I (*Shark Tank*).

($\beta = .006$, $p = .898$), which suggests that there are no significant attractiveness effects for female entrepreneurs. Comparing the predicted venture evaluations of our model at low ($-1 SD$), moderate (mean), and high ($+1 SD$) levels of attractiveness further supports this pattern of results. For male founders, venture evaluations at moderate attractiveness are significantly higher than those at low attractiveness ($p = .014$) and high attractiveness ($p = .029$). In contrast, for female founders, venture evaluations at moderate attractiveness are not significantly different from those at low attractiveness ($p = .392$) or high attractiveness ($p = .260$). These results support H2. Figure 3 plots the gender moderation. Collectively, these results support the theorized gender difference in how attractiveness affects evaluations: moderate attractiveness is associated with higher venture evaluations for male founders, but not for female founders.

Effect Sizes. These findings are also meaningful in terms of effect sizes. To facilitate interpretation, we converted predicted values from the log scale back into USD. The expected investment is USD 190,642 at low founder attractiveness ($-1 SD$), USD 205,200 at moderate attractiveness (mean), and USD 185,273 at high attractiveness ($+1 SD$). To examine whether these patterns differ by founder gender, we estimated predicted investment amounts separately for male and female founders. For male founders, the expected investment is USD 199,216 at low attractiveness ($-1 SD$), USD 242,478 at moderate attractiveness (mean), and USD 217,840 at high attractiveness ($+1 SD$). In contrast, for female founders, expected investment is USD 185,587 at low attractiveness ($-1 SD$), USD 166,023 at moderate attractiveness (mean), and USD 149,188 at high attractiveness ($+1 SD$).

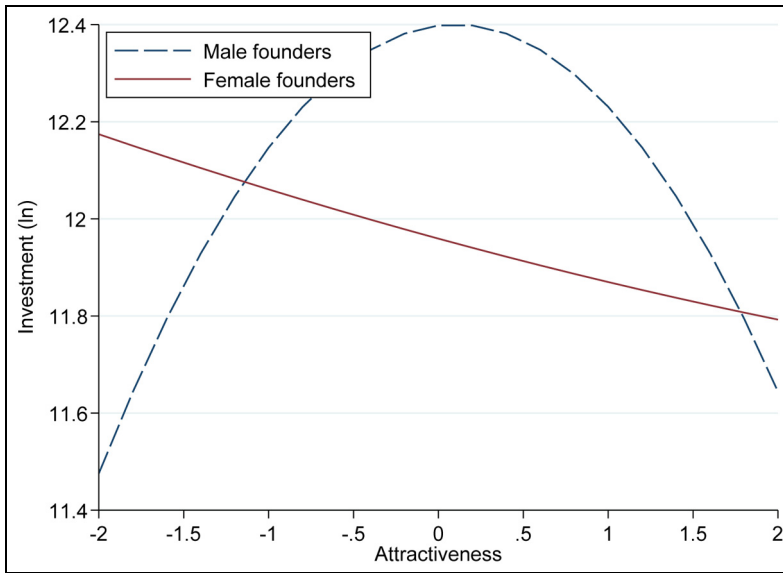


Figure 3. Gender moderation of founder attractiveness and venture evaluations in Study I (*Shark Tank*).

Robustness Tests. First, we ran a Cragg hurdle model (Garcia, 2013). This two-part specification is well suited to this context, as it separates the two parts of a venture evaluation. The first stage models whether a venture receives *any* funding using a probit selection equation, and the second stage models the conditional amount of funding received using a truncated linear regression among the subset of ventures that raised funds. We found that both the quadratic term ($\beta = -.074$; $p = .011$) and the gender moderation remain significant ($\beta = .181$; $p = .007$), supporting H1 and H2. Second, we tested our model without control variables and found that both the quadratic term ($\beta = -.141$; $p = .007$) and the gender moderation ($\beta = .146$; $p = .038$) remain significant. These results lend additional support to H1 and H2.

Supplementary Analysis. In an earlier version of this article, we included a study of 292 pitches from TechCrunch's *Startup Battlefield*, one of the world's largest entrepreneurial pitch competitions. The analysis provided additional evidence for the results reported in Study 1, with entrepreneurs of moderate attractiveness receiving significantly better venture evaluations than those who are very attractive or very unattractive. While these findings demonstrate that our results are not specific to *Shark Tank* and can also be observed in other pitch contexts, they did not yield any other new insights beyond our current main analyses. We therefore report them as a supplementary analysis in the Online Appendix (<https://osf.io/a3q48>).

Study 2: Experiment

As part of the registered revision track at *Entrepreneurship Theory and Practice*, we worked with the editor and reviewer team to design an experiment to establish causal inference and validate our theorizing by testing the proposed mechanisms. The experiment was

preregistered on the *Open Science Framework* (<https://osf.io/jphvx>) and conducted as part of the review process.

Independent and Moderating Variables: Founder Attractiveness and Founder Gender. The study used a 3 (Founder Attractiveness: Low, Moderate, and High) $\times$ 2 (Founder Gender: Male vs. Female) between-subjects design. Participants were randomly assigned to one of six conditions in which founder attractiveness and gender were manipulated, while all other features were held constant. Each participant evaluated a single founder-venture profile to avoid order or contrast effects (Hsu et al., 2017).

To generate these experimental conditions, we used AI-generated images (source: <https://generated.photos>) of a woman and a man as seed images. Next, we used generative AI (ChatGPT o4-mini; prompt in Appendix 2) to modify these images, creating three versions at low, moderate, and high attractiveness while holding all other appearance-based features constant (e.g., age, facial hair, background, and expression). We pretested the stimuli with 125 investors to validate the attractiveness manipulation. Standardized attractiveness ratings showed clear separation across the three intended levels ($M_{\text{Low Attractiveness; Male Founder}} = -0.886 SD$, $M_{\text{Moderate Attractiveness; Male Founder}} = +0.086 SD$, $M_{\text{High Attractiveness; Male Founder}} = +0.824 SD$; $M_{\text{Low Attractiveness; Female Founder}} = -1.197 SD$, $M_{\text{Moderate Attractiveness; Female Founder}} = +0.280 SD$, $M_{\text{High Attractiveness; Female Founder}} = +0.863 SD$). In the pretest, only 4 of 125 investors suspected AI generation or image editing, supporting the validity of our stimuli. Each image was labeled “Entrepreneur: James Miller” (male condition) or “Entrepreneur: Jessica Miller” (female condition) to identify the depicted person as a founder. The use of such AI manipulations addresses concerns about uncontrolled variation in stimuli that are common in “natural” photos (e.g., different hairstyles, clothing, backgrounds). We used these manipulated photos as experimental stimuli and independent variable in the experiment. They are depicted in Figure 4.

Participants viewed one founder image alongside a bias-tested (industry experts assessed whether the idea was realistic for the early-stage investment context as well as gender neutral; Lee & Huang, 2018) venture description that was identical for all participants and then started their evaluation (venture description available at <https://osf.io/asjvu/files/psz25>).

Dependent Variable: Venture Evaluation. The dependent variable was the three-item scale by Murnieks et al. (2011), which measures: (1) the probability that participants would invest in the opportunity, (2) the amount of money they would likely invest, and (3) how successful they think the opportunity will be. All items were measured on a five-point scale, and the scale exhibited internal consistency (venture evaluation: $\alpha = .866$).

Mediating Variables: Perceived Legitimacy and Perceived Distinctiveness. Participants assessed perceived legitimacy (Mediator 1; Pollack et al., 2012) and perceived distinctiveness (Mediator 2; Radoynovska & King, 2019) on a five-point scale. Both scales exhibited internal consistency (perceived legitimacy: $\alpha = .796$; perceived distinctiveness: $\alpha = .859$).

Preregistered Experimental Sampling. An a priori G*Power analysis (Faul et al., 2007) suggested that detecting a small-to-medium effect ($f = 0.150$, $\alpha = .050$, power = 0.800) in our six-condition between-subjects design would require approximately 690 participants. To account for attrition and incomplete responses, we tasked *Prolific*, which has been used frequently in recent publications on venture evaluations (e.g., Liao et al., 2023; Zunino et al.,



Figure 4. Attractiveness manipulations in the experiment.

Note. Left: low attractiveness, middle: moderate attractiveness, right: high attractiveness.

2022), with recruiting 800 participants. Eligibility was established through Prolific's recruitment-level prescreening, and only individuals who met the following criteria were admitted to the experiment: (1) had prior venture investment experience, (2) were based in the United States, (3) had at least 10 prior submissions, (4) had a prior submission approval rate greater than 99%, and (5) used a computer (not a phone) to answer the survey to ensure they view the picture at an appropriate size (for a similar approach, see Antretter et al., 2025; Wesemann Lekkas, Antretter, Souitaris, Shepherd, & Wincent, 2025).

Due to timeouts and returns, which led to the reallocation of experimental slots, 817 responses entered the experiment. Of these, 781 provided complete responses for all required variables. As stated in the preregistration, we also excluded all candidates who failed an attention check, leading to the exclusion of another 10 participants, making the final analytic sample $N = 771$.

Within the final analytic sample, 94.6% confirmed at least one prior investment in start-ups or crowdfunding when asked directly in the survey. The remaining 5.4% met the platform-level criterion but did not confirm it in the instrument. We retained these participants, as the preregistered criterion was the platform screen. Among the analytic sample,

participants reported median experience of two prior startup investments and two prior crowdfunding investments. Beyond these primary investment domains, our sample also reported that 15.0% have broader experience in angel investing and 13.6% in venture capital. This indicates that participants are not narrowly specialized but rather diversified investors with investment experience across the entrepreneurial spectrum.

Deviations From the Registered Protocol. H4, the moderated mediation hypothesis, was inadvertently omitted from the preregistration document filed on open science framework (OSF), although the analysis it specifies was part of the registered plan: the preregistration states that gender moderation and the parallel mediation would be estimated simultaneously in a single structural equation model (SEM), with moderated mediation effects tested via bootstrapping. The discrepancy is therefore confined to the statement of the hypothesis rather than the analysis, and H4 is not supported by our data.

Manipulation and Randomization. Manipulation checks confirm that both manipulations are successful. Perceived founder attractiveness across conditions differs as intended ($M_{\text{Low Attractiveness}} = 1.668$, $M_{\text{Moderate Attractiveness}} = 2.410$, $M_{\text{High Attractiveness}} = 3.176$; $F[2, 768] = 130.538$, $p < .001$, partial $\eta^2 = .254$). Additional tests reveal significant differences between adjacent conditions (low vs. moderate attractiveness: $t = -7.831$, $p < .001$; moderate vs. high attractiveness: $t = -8.185$, $p < .001$). Gender recognition is highly significant ($\chi^2[1] = 435.086$, $p < .001$, Cramer's $V = 0.751$) for both gender conditions.

Our randomization was also successful: participants did not differ significantly across the six experimental cells on age ($F[5, 765] = 1.511$, $p = .184$, partial $\eta^2 = .010$), education ($F[5, 765] = 0.681$, $p = .638$, partial $\eta^2 = .004$), respondent gender ($\chi^2[15] = 18.509$, $p = .237$, Cramer's $V = 0.089$), prior startup-investing experience ($F[5, 765] = 0.612$, $p = .691$, partial $\eta^2 = .004$), or crowdfunding experience ($F[5, 765] = 0.889$, $p = .488$, partial $\eta^2 = .006$).

Model Tests. Before testing the hypotheses, we verified that Venture Evaluation, Perceived Legitimacy, and Perceived Distinctiveness reflect three empirically distinguishable constructs. We ran an exploratory factor analysis on the corresponding items using oblique promax rotation. Sampling adequacy was good (Kaiser–Meyer–Olkin test = 0.867; Bartlett's $\chi^2[36] = 3,672.730$, $p < .001$), Horn's parallel analysis recommended three factors, and the resulting structure was clean: each item loaded only on its intended factor (loadings 0.614–0.913; all cross-loadings < 0.3). The three identified factors explained 65.7% of the variance. A subsequent three-factor confirmatory factor analysis showed acceptable measurement fit ($\chi^2[24] = 118.984$, Comparative Fit Index (CFI) = 0.974, Tucker–Lewis Index (TLI) = 0.961, root mean squared error of approximation (RMSEA) = 0.072, standardized root mean square residual (SRMR) = 0.046) with all standardized factor loadings exceeding 0.6.

Experimental Results. We tested our hypotheses in two preregistered stages. Stage 1 consists of 2 (Founder Gender) $\times$ 3 (Attractiveness) analysis of variance (ANOVAs) for each outcome, to check for model-free evidence of the predicted condition differences. Stage 2 consists of the preregistered parallel moderated mediation model, estimated using the *lavaan* package (Rosseel, 2012) as a SEM. All analyses were carried out in *R*. We used mean scores

Table 3. Descriptive Statistics and Correlations of Study 2 (Experiment).

#	Variable	Mean	SD	Min	Max	1	2	3	4	5	6	7
1	Venture evaluation	3.02	0.82	1	5							
2	Perceived legitimacy	3.39	0.86	1	5	0.62						
3	Perceived distinctiveness	2.59	0.99	1	5	0.47	0.41					
4	Attractiveness	0.02	0.81	-1	1	0.02	0.30	0.00				
5	Female founder	0.48	0.50	0	1	0.01	-0.06	0.11	0.00			
6	Age	40.22	11.58	18	76	-0.04	-0.05	0.01	0.01	-0.07		
7	Gender ($m = 1$)	0.59	0.49	0	1	-0.19	-0.07	-0.05	0.03	-0.03	-0.08	
8	Education	4.80	1.39	1	8	0.01	-0.04	0.03	-0.04	-0.03	0.13	-0.02

Note. $N = 771$. All correlations $|r| > .07$ are significant at $p < .05$. Attractiveness is coded -1 (low), 0 (moderate), +1 (high). Female founder is the experimental condition (1 = female founder image, 0 = male founder image).

for the ANOVAs (for the sake of improved interpretability) and latent factor scores within our SEM framework.

Attractiveness was coded as two contrasts using reverse effect coding as this allows a more intuitive interpretation of the results. We created a *moderate-to-low attractiveness* contrast comparing the moderate attractiveness condition against the low one and a *high-to-moderate attractiveness* contrast comparing the high attractiveness condition with the moderate one. *Founder gender* was coded as a binary dummy (male = 0, female = 1). The constructs of *perceived legitimacy*, *perceived distinctiveness*, and *venture evaluation* were modeled as latent factors. Indirect and moderated indirect effects were estimated with 10,000 bootstrapped repetitions. Descriptives and correlations appear in Table 3; SEM path estimates and bootstrap-based indirect effects are shown in Tables 4 and 5.

First, we tested the main effect. Mean ratings of venture evaluations are essentially flat across attractiveness conditions ($M_{\text{Low Attractiveness}} = 3.014$, $M_{\text{Moderate Attractiveness}} = 2.998$, $M_{\text{High Attractiveness}} = 3.051$; $F[2, 765] = 0.377$, $p = .686$, partial $\eta^2 = .001$). Thus, H1 is not supported in this sample. Second, we find that attractiveness has a significant effect on perceived legitimacy ($F[2, 765] = 40.102$, $p < .001$, partial $\eta^2 = .095$). In line with our theorizing, perceived legitimacy is higher for moderately attractive founders ($M_{\text{Moderate Attractiveness}} = 3.456$) than unattractive ones ($M_{\text{Low Attractiveness}} = 3.020$), and this difference is significant ($t = -5.906$, $p < .001$). However, contrary to our predictions, we find that although there are decreasing marginal returns, highly attractive founders evoke the highest levels of perceived legitimacy ($M_{\text{High Attractiveness}} = 3.659$). This difference is also significant ($t = -2.797$, $p = .005$). Effect sizes are also considerable: ratings rise by about 14.4% from low to moderate attractiveness, and by a further 5.9% from moderate to high, each relative to the preceding level.

These results are confirmed in our SEM. The moderate-to-low attractiveness contrast has a positive and significant coefficient indicating that moderate attractiveness is associated with higher perceptions of legitimacy than low attractiveness ($b = 0.465$, 95% CI [0.282, 0.650], $p < .001$). For the high-to-moderate attractiveness contrast, the effect is also significant but weaker ($b = 0.271$, 95% CI [0.107, 0.427], $p = .001$). Turning to the mediating effect of perceived legitimacy, our SEM results suggest that legitimacy strongly predicts venture evaluation ($b = 0.675$, 95% CI [0.583, 0.773], $p < .001$) and that legitimacy acts as mediator in the relationship between the two attractiveness contrasts and venture

Table 4. SEM Results (Mediation Only).

Predictor	→ Legitimacy <i>b</i> [95% CI]	→ Distinctiveness <i>b</i> [95% CI]	→ Venture evaluation <i>b</i> [95% CI]
Moderate-to-low attractiveness	0.465*** [0.282, 0.650]	−0.209* [−0.376, −0.045]	−0.314*** [−0.444, −0.190]
High-to-moderate attractiveness	0.271** [0.107, 0.427]	0.222* [0.052, 0.389]	−0.147* [−0.267, −0.028]
Female founder	−0.110 [−0.246, 0.035]	0.210** [0.072, 0.349]	0.065 [−0.035, 0.169]
Perceived legitimacy			0.675*** [0.583, 0.773]
Perceived distinctiveness			0.138** [0.054, 0.220]
Indirect effects			
Moderate-to-low attractiveness → mediator → venture evaluation	0.314*** [0.189, 0.452]	−0.029* [−0.061, −0.005]	
High-to-moderate attractiveness → mediator → venture evaluation	0.183** [0.073, 0.294]	0.031* [0.005, 0.064]	

Note. $N = 771$. Standardized SEM coefficients with bootstrap 95% percentile CIs (10,000 repetitions). Fit: $\chi^2(42) = 181.027$, $p < .001$; CFI = 0.964; TLI = 0.946; RMSEA = 0.066; SRMR = 0.046. SEM = structural equation model; CFI = Comparative Fit Index; TLI = Tucker–Lewis Index; RMSEA = root mean squared error of approximation; SRMR = standardized root mean square residual.

* $p < .05$. ** $p < .01$. *** $p < .001$.

Table 5. SEM Results (Moderated Mediation).

Predictor	→ Legitimacy <i>b</i> [95% CI]	→ Distinctiveness <i>b</i> [95% CI]	→ Venture evaluation <i>b</i> [95% CI]
Moderate-to-low attractiveness	0.368** [0.130, 0.609]	−0.209* [−0.376, −0.045]	−0.295*** [−0.454, −0.145]
High-to-moderate attractiveness	0.283** [0.076, 0.487]	0.222* [0.052, 0.389]	−0.103 [−0.267, 0.062]
Female founder	−0.110 [−0.247, 0.035]	0.210** [0.072, 0.349]	0.067 [−0.034, 0.172]
Moderate-to-low attractiveness × female founder	0.200 [−0.125, 0.529]		−0.038 [−0.271, 0.192]
High-to-moderate attractiveness × female founder	−0.030 [−0.307, 0.245]		−0.088 [−0.326, 0.157]
Perceived legitimacy			0.677*** [0.585, 0.777]
Perceived distinctiveness			0.137** [0.052, 0.219]
Indirect effects			
Moderate-to-low attractiveness × male founder → mediator → venture evaluation	0.249** [0.087, 0.420]		

(continued)

Table 5. (continued)

Predictor	→ Legitimacy <i>b</i> [95% CI]	→ Distinctiveness <i>b</i> [95% CI]	→ Venture evaluation <i>b</i> [95% CI]
Moderate-to-low attractiveness × female founder → mediator → venture evaluation	0.385*** [0.211, 0.574]		
High-to-moderate attractiveness × male founder → mediator → venture evaluation	0.191** [0.050, 0.333]		
High-to-moderate attractiveness × female founder → mediator → venture evaluation	0.171* [0.019, 0.323]		

Note. *N* = 771. Standardized SEM coefficients with bootstrap 95% percentile CIs (10,000 repetitions). Fit: $\chi^2(56) = 191.888$, $p < .001$; CFI = 0.965; TLI = 0.949; RMSEA = 0.056; SRMR = 0.045. SEM = structural equation model; CFI = Comparative Fit Index; TLI = Tucker–Lewis Index; RMSEA = root mean squared error of approximation; SRMR = standardized root mean square residual.

* $p < .05$. ** $p < .01$. *** $p < .001$.

evaluation. The effect of the moderate-to-low attractiveness contrast on venture evaluation is positively and significantly mediated through perceived legitimacy ($b = 0.314$, 95% CI [0.189, 0.452], $p < .001$), as is the effect of the high-to-moderate attractiveness contrast ($b = 0.183$, 95% CI [0.073, 0.294], $p = .001$). In short, increasing attractiveness raises perceived legitimacy, which in turn raises venture evaluations, though the legitimacy gain diminishes above moderate attractiveness. This monotonic (rather than peaked) legitimacy pattern is why we describe H3a as only partially supported.

Third, the results show that the effect of attractiveness on perceived distinctiveness is significant ($F[2, 765] = 4.038$, $p = .018$, partial $\eta^2 = .011$), with both extremes rated as more distinct than the moderate condition ($M_{\text{Low Attractiveness}} = 2.661$, $M_{\text{Moderate Attractiveness}} = 2.440$, $M_{\text{High Attractiveness}} = 2.658$, pairwise $t = 2.570$, $p = .016$ for moderate vs. low; $t = -2.563$, $p = .016$ for high vs. moderate). In terms of effect sizes, both extremes raise perceived distinctiveness by 9% relative to moderate attractiveness.

These effects are also confirmed by the SEM (moderate-to-low attractiveness: $b = -0.209$, 95% CI [-0.376, -0.045], $p = .013$; high-to-moderate attractiveness: $b = 0.222$, 95% CI [0.052, 0.389], $p = .010$). Perceived distinctiveness in turn predicts venture evaluation ($b = 0.138$, 95% CI [0.054, 0.220], $p = .001$), and the SEM confirms a significant mediation effect of attractiveness on venture evaluation via perceived distinctiveness. The indirect effect of perceived distinctiveness for the moderate-to-low attractiveness contrast is negative and significant ($b = -0.029$, 95% CI [-0.061, -0.005], $p = .049$). By contrast, the same effect for high-to-moderate attractiveness contrast is positive and significant ($b = 0.031$, 95% CI [0.005, 0.064], $p = .044$). These results are in line with our theorizing that moderately attractive founders appear less distinct than founders who are very unattractive or very attractive, and support H3b.

Because our theorizing rests on the two channels of perceived legitimacy and distinctiveness carrying unequal weight, we tested their relative magnitude directly. The indirect effect through perceived legitimacy is significantly larger than the indirect effect through

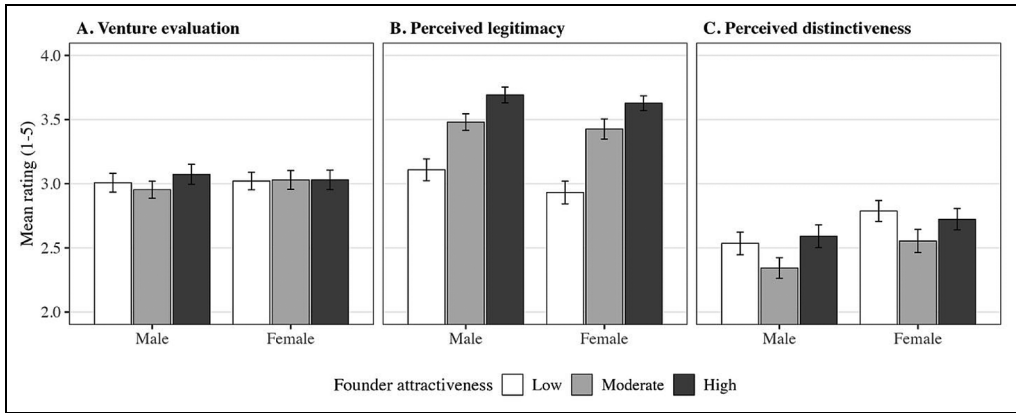


Figure 5. Mean ratings by founder gender and attractiveness condition in the experiment. (A) Venture evaluation, (B) perceived legitimacy, and (C) perceived distinctiveness.

perceived distinctiveness for both contrasts (moderate-to-low: $\Delta = 0.343$, 95% CI [0.225, 0.470], $p < .001$; high-to-moderate: $\Delta = 0.152$, 95% CI [0.050, 0.261], $p = .005$). The two channels are therefore not merely separable but asymmetric, and legitimacy dominates. This asymmetry means that a study measuring only the net effect will register whichever channel dominates its setting, leaving the other one invisible. A visualization of mean venture evaluations across all six conditions appears in Figure 5.

Lastly, turning to the gender moderation, the experiment finds no effect: the Gender $\times$ Attractiveness interactions in both ANOVAs are null (venture evaluation: $F[2, 765] = 0.337$, $p = .714$, partial $\eta^2 = .001$; legitimacy: $F[2, 765] = 0.426$, $p = .653$, partial $\eta^2 = .001$), all corresponding moderated paths in a SEM model are non-significant, and the bootstrap-based moderated indirect effects do not show differences in significances for male and female founders in the experimental conditions (see Table 5). Thus, H2 and H4 are not supported, which we discuss in the following interpretation section.

Preregistered Robustness Checks. Because the founder portraits were AI-generated, our preregistration committed us to a robustness analysis excluding participants who indicated they suspected AI-generated imagery. Of the 771 participants in the analytic sample, 72 (9.3%) raised such suspicion. Re-estimating the models on the remaining $N = 699$ leaves the pattern unchanged: the effect of attractiveness on venture evaluation remains null ($F[2, 693] = 1.773$, $p = .171$, partial $\eta^2 = .005$). The Gender $\times$ Attractiveness interaction on venture evaluation also remains non-significant ($F[2, 693] = 0.143$, $p = .867$, partial $\eta^2 = .000$). The effects on perceived legitimacy ($F[2, 693] = 42.889$, $p < .001$, partial $\eta^2 = .110$) and distinctiveness ($F[2, 693] = 4.621$, $p = .010$, partial $\eta^2 = .014$) remain significant and in the same direction.

Conclusions are unchanged when controlling for participant age, gender, education, prior startup-investing experience, and prior crowdfunding experience: the null effect on venture evaluation persists, and the gender moderation is not significant. The attractiveness coefficients on legitimacy and on distinctiveness retain their magnitude, direction, and significance.

Interpretation of Experimental Mediating Mechanisms. As discussed, the preregistered mediating mechanisms (perceived legitimacy and perceived distinctiveness) are largely supported. On legitimacy, low attractiveness depresses ratings, while the gain above moderate attractiveness flattens. This departs from H3a, which predicted that legitimacy would be highest at moderate attractiveness and lower at both extremes. The prediction holds at the lower extreme but not at the upper one: highly attractive founders were perceived as the most legitimate, not the least. We therefore treat the legitimacy channel as monotonic with diminishing returns rather than as the peaked function we theorized, and we note that this weakens the prototype-fit rationale we advanced for H1 at the high end of the attractiveness distribution. On distinctiveness, moderate-attractiveness founders are perceived as least distinct.

These two mediators follow different shapes, and they pull in opposite directions at times, which supports our theoretical premise that legitimacy and distinctiveness are separable dimensions of evaluator perception that can counteract each other. As reported above, the legitimacy channel significantly outweighs the distinctiveness channel for both contrasts. The implication for the literature is that the traditional linear “beauty premium” captures one channel, legitimacy, which is positive in our data, but understates the less visible role of distinctiveness, which follows the opposite shape.

Interpretation of Experimental Gender Moderation. In our experimental data, we find no evidence that founder gender moderates the effects of attractiveness on either venture evaluation or legitimacy, in any specification we tested. This finding goes against the results from our field study, in which the same gender–attractiveness interaction held robustly. We tentatively attribute this experimental null to the difference in contextual-primer strength between field and online settings. In real entrepreneurship environments (pitch competitions, startup events, venture firms), male dominance is overwhelming and persistent: an evaluator spends hours surrounded by mostly male founders, and a female founder on stage stands out sharply against that backdrop. Other recent studies also highlight this imbalance. For example, Brooks et al. (2014) note that only 11% of high-growth-potential ventures are founded or led by women, and a separate field study found that only 12% of entrepreneurs presenting at major startup pitch events were female (Kanze et al., 2018). In our online experiment, by contrast, participants simply opened a survey link, read a venture description with a picture of the founder, and rated it. That minimal contextual frame may have been insufficient to activate the gendered “founder prototype” that exists in the field.

This indication that online experiments may be too thin to surface gender effects has implications beyond our specific study. The absence of a Gender $\times$ Attractiveness interaction in our *Prolific* data does not establish the absence of gender bias in the field; it may simply reflect a limitation of the online setup. As AI tools and online panels make sophisticated experiments increasingly easy to deploy, our research community should examine carefully whether these conditions replicate the elements of field settings sufficiently well to give rise to context-activated biases (Bertrand & Duflo, 2017). Consider, for instance, an experiment in which participants evaluate ventures on what looks visually identical to an investor dashboard on an angel investment platform. Even in a perfectly realistic scenario, a single venture rated in isolation will not reproduce the cumulative priming an actual investor experiences after evaluating a long series of male-led ventures and then encountering a female-led one as part of their regular workflow. Online and field methods may

therefore not always be interchangeable tests of the same theoretical mechanism, and bias research will need to be conscious of experimental limitations.

Discussion

In this study, we proposed a potential reconciliation of the so-called beauty premium (Brooks et al., 2014; Schreiber et al., 2024) and beauty-is-beastly effect (Heilman & Saruwatari, 1979; Johnson et al., 2010) by suggesting that the attractiveness–evaluation link might be mediated by perceived legitimacy and perceived distinctiveness (Navis & Glynn, 2011). We found in the field study that moderately attractive founders tend to receive higher evaluations than those who are either very attractive or very unattractive, and that this relationship is gendered. This is in line with literature showing that the potential benefits of attractiveness tend to be weaker for women in masculine domains (Johnson et al., 2010, 2014; Ruffle & Shtudiner, 2015). Our experiment did not replicate these effects, potentially due to a relatively thin contextual primer, but identified perceived legitimacy and perceived distinctiveness as important mediators between attractiveness and venture evaluations, with distinctiveness following the theorized *U*-shape and legitimacy rising monotonically at a diminishing rate. Overall, our findings advance a more nuanced view of how early-stage investors evaluate entrepreneurs by showing that their impressions are filtered through entrenched prototypes and perceptions of legitimacy and distinctiveness.

Research Contributions

We make four research contributions. First, our results contextualize the conflicting findings in the attractiveness literature and shed light on the role of founder attractiveness in entrepreneurship (Brooks et al., 2014; Schreiber et al., 2024). While the psychology literature documents the “beauty is beastly” effect (Heilman & Saruwatari, 1979; Johnson et al., 2010, p. 301), most studies on entrepreneurial fundraising find a “beauty premium” (e.g., Brooks et al., 2014; Colombo et al., 2022, p. 491; Schreiber et al., 2024). Our decomposition offers an explanation for these opposing findings: the two literatures track different channels of a single process. Perceived legitimacy is won mainly on the way to the prototype: founders gain most of it as they approach average attractiveness. Perceived distinctiveness runs on a different logic and peaks at both extremes. What the literature reads as a beauty premium or beastly beauty is therefore two trends running through two channels, and a study measuring only the net effect cannot tell them apart. This finding moves the discussion past traditional attractiveness mechanisms to a perspective in which surface-level traits confer benefits only within the acceptable range of appearance-based prototype deviations (Deephouse, 1999).

Second, we contribute to the gender literature. Many studies highlight female founders’ uphill battles to achieve “fit” (e.g., Balachandra et al., 2019; Kanze et al., 2018). However, building on studies exploring the beauty premium for female entrepreneurs (Letwin et al., 2024; Schreiber et al., 2024; Seigner & Milanov, 2023), we suggested that because female founders can never fully “fit” the prototype (because it is male), they are penalized less for major, appearance-based deviations from the prototype than male founders are. On this account, women would suffer smaller legitimacy penalties for being very attractive or very unattractive, but would also have fewer options to use their appearance to seem prototypical. This extends the theoretical literature on prototype fit by proposing that for out-group members (such as female founders) who do not fit a narrowly defined category prototype,

evaluations become insensitive to other variations. In other words, one fundamental prototype deviation can reduce conformity pressures for additional, appearance-based deviations. This theoretical prediction challenges the common assumption that women must always manage their appearance more carefully than men (e.g., Elsesser & Lever, 2011; Heilman, 2001) and suggests that acceptance of diversity can be higher outside of category prototypes (Lee & Huang, 2018; Vongswasdi et al., 2025). However, we also note that this gender-specific pattern emerged in our field study but did not replicate in the experiment, where the entrepreneurial context was conveyed through a single sentence rather than the immersive surroundings of a pitch competition. This suggests that the prototype's gendered effect on appearance penalties is conditional on a sufficiently strong contextual primer: when the male-dominated entrepreneurial environment is salient, female founders' baseline category deviation absorbs additional appearance-based variation; when it is not, attractiveness operates independently of founder gender.

Third, we add to the theoretical literature on legitimate distinctiveness (Navis & Glynn, 2011) by shifting the unit of analysis from deliberate, firm-level communication to founder-level embodied traits. Prior studies show how ventures cultivate distinctiveness and legitimacy through strategic alliances and narrative framing (e.g., Taeuscher et al., 2022; Younger et al., 2025). We demonstrate that in low-information contexts like venture pitches, observers instead rely on founders' physical attractiveness as a heuristic proxy for both venture distinctiveness and legitimacy. These results uncover new microfoundations of legitimate distinctiveness and show how evaluators' cognitive biases regarding embodied traits aggregate into perceptions of legitimacy and distinctiveness. This connects research on social cognition (Tasselli et al., 2015) to institutional perspectives on how prototypes shape evaluation (Deephouse, 1999). Moreover, we theoretically separate perceived legitimacy and distinctiveness to disentangle the different pathways through which attractiveness affects venture evaluations, thereby adding to the movement to conceptualize legitimate distinctiveness as a multidimensional construct (Taeuscher et al., 2021).

Finally, our study makes a methodological contribution by illustrating the application of an open-source, neural network-based measure of physical attractiveness (Eisenthal et al., 2006). Previous studies using unobtrusive measures of physical attractiveness relied on rather small samples of similar individuals to rate physical attractiveness and on limited scales of attractiveness (e.g., highly attractive and slightly below average-looking; Ruffle & Shtudiner, 2015). For example, raters in previous studies often consisted of smaller groups of research assistants (e.g., Balachandra et al., 2019; $n = 2$); undergraduate students (e.g., Ciuchta et al., 2018; $n = 92$); or professionals, such as accountants and stock-market traders (e.g., Cao et al., 2020; $n = 63$). These measures offer limited external validity regarding perceptions of physical attractiveness because ethnic, demographic, and occupational factors impact people's perceptions (Broer et al., 2014). The use of representative ratings is particularly relevant for research in contexts that are increasingly diverse and international, like early-stage investing (Harrison & Mason, 2017; Wesemann & Antretter, 2023). Given these constraints in reliably measuring physical attractiveness, researchers have called for "a more nuanced approach to capturing attractiveness" (Colombo et al., 2022, p. 513). We leveraged two large-scale databases in which attractiveness was rated by thousands of raters of different genders, ages, occupations, and cultural backgrounds to train a state-of-the-art ANN (see Appendix 1 for more details). Thus, our results add to the methodological arsenal of both scholars studying attractiveness as well as those applying AI-based methods in entrepreneurship research (e.g., Antretter et al., 2019; Blohm et al., 2022; Matthews et al., 2024).

Practical Implications

Our findings have practical implications for entrepreneurs seeking resources and for early-stage investors evaluating new ventures. They underscore the complex interplay between legitimacy and distinctiveness and reveal that these perceptions are shaped not only by entrepreneurs' actions but also by their appearance. This is particularly relevant for founder teams choosing which team member should pitch the venture. Depending on the context, one might either pick a stereotypically attractive sales-oriented figure, or someone who visually embodies the prototype of a startup founder.

For investors and those involved in evaluating early-stage ventures, these results counsel caution with respect to prototype-driven biases that may distort judgments about founders' potential. Institutional actors (e.g., accelerators, venture capitalists, and policy programs) should, therefore, invest in processes and training that encourage evaluators to look beyond appearance-based cues and reassess the kinds of signals that genuinely predict founder success. This can enable a more diverse range of founders to thrive and foster more evidence-based investment decisions.

Limitations and Future Research

Our work has limitations that create opportunities for future research. First, our focus on early-stage investors' judgments formed based on entrepreneurs' attractiveness encompasses only one possible dimension of how perceived distinctiveness may influence venture evaluations. Prior research shows that many other factors may affect resource providers' impression formation and decision-making, including the use of visual symbols, such as stage props (Clarke, 2011); facial expressions (Jiang et al., 2019; Warnick et al., 2021); and body language (Clarke et al., 2019; Dávila & Guasch, 2022). Other personal appearance-based stereotypes may also intersect with the entrepreneurial prototypes we explored. For example, recent work has examined the effects of age (Seigner et al., 2024), race (Gold, 2018), body type (Antretter et al., 2025), physical disabilities (Stroe et al., 2026), or clothes (Wesemann Lekkas, Antretter, Souitaris, Shepherd, & Wincent, 2025), all of which may amplify or counteract prototype-based biases in entrepreneurial evaluations. Explorations of how such intersectional identities jointly shape perceptions of legitimacy and distinctiveness would provide a richer understanding of how the interplay among social categories influences resource allocation.

Second, our study primarily focuses on the importance of gender as a boundary condition for the role of legitimate distinctiveness in early-stage investors' decision-making processes. Future research could expand this inquiry to explore the impact of other categories, including both visible characteristics, such as race, body type, or disability, and behavioral factors, such as verbal expressions (Anglin et al., 2023; Chandler et al., 2024), on decision-making and resource allocation. As such, we echo Kalvapalle et al. (2024) who call for more research on multimodal effects (e.g., combinations of verbal, nonverbal, and visual elements) in early-stage venture pitches.

Third, while our findings suggest that founder attractiveness does not significantly influence investors' evaluations for female entrepreneurs, the audience's composition likely matters. In appearance-centric industries, attractiveness may confer advantages. Anecdotal examples, such as Kylie Jenner founding a makeup brand or Evan Spiegel launching Snapchat, illustrate a possible second level of congruence between the founder's appearance and the aesthetic orientation of the business itself. Future research may explore this issue. Audience characteristics may also vary across contexts. For instance, in reward-based

crowdfunding, the crowd tends to be more diverse and identity conscious, so mechanisms like activist choice homophily may even reverse typical gender biases (Greenberg & Mollick, 2017; Seigner & Milanov, 2023). Future research could examine how attractiveness operates across different evaluative environments and how the audience's composition moderates these effects.

Fourth, disrupting the evaluation context can alter how legitimacy and distinctiveness are interpreted. For example, Schreiber et al. (2024) studied investors' biological responses to participant attractiveness by having them evaluate hypothetical pitches while providing saliva samples. While commendable for measuring cortisol responses, the context stripped away the typical reference points that guide investors' expectations in real-world funding environments. In such settings, judgments may be driven more by visceral or affective reactions than by structured comparisons to the prototypical founder. We therefore suggest that future research should explore the circumstances under which contextual factors affect legitimacy assessments.

Fifth, we conducted our research in a context in which investors had no prior information on the startups, so that first impressions were based on appearance. This is not the case for all venture evaluations. Often, business angels first receive a business plan, form an impression of the focal business, and then meet the entrepreneur. In these situations, we suspect that entrepreneurs' appearance may matter less because investors' first impressions and subsequent opinions are not based on appearance. However, how and in what order impressions of ventures and entrepreneurs change venture evaluations remain important topics for future scientific exploration.

Conclusion

This study shows that founder attractiveness reaches venture evaluations through two separable and countervailing channels: perceived legitimacy, which rises with attractiveness at a diminishing rate, and perceived distinctiveness, which peaks at both extremes. Our field study further indicates that these dynamics are gendered, though this pattern did not emerge in our experiment. These findings show that appearance is not a single cue but a composite one, and that separating its components clarifies how the same trait can help and hinder at once. Recognizing these dynamics is essential for fostering more inclusive entrepreneurial ecosystems.

ORCID iDs

Henrik Lekkas  <https://orcid.org/0000-0003-2072-7760>
Torben Antretter  <https://orcid.org/0000-0002-6674-4585>
Ivo Blohm  <https://orcid.org/0000-0003-2422-5952>
Charlotta Sirén  <https://orcid.org/0000-0002-6984-4952>
Joakim Wincent  <https://orcid.org/0000-0002-8770-8874>

Funding

The authors received no financial support for the research, authorship, and/or publication of this article.

Declaration of Conflicting Interests

The authors declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

References

- Alter, A. L., & Oppenheimer, D. M. (2009). Uniting the tribes of fluency to form a metacognitive nation. *Personality and Social Psychology Review*, 13(3), 219–235. <https://doi.org/10.1177/1088868309341564>
- Andreoni, J., & Petrie, R. (2008). Beauty, gender and stereotypes: Evidence from laboratory experiments. *Journal of Economic Psychology*, 29(1), 73–93. <https://doi.org/10.1016/j.joe.2007.07.008>
- Anglin, A. H., Milanov, H., & Short, J. C. (2023). Religious expression and crowdfunded microfinance success: Insights from role congruity theory. *Journal of Business Ethics*, 185(2), 397–426. <https://doi.org/10.1007/s10551-022-05191-1>
- Antonakis, J., Fenley, M., & Liechti, S. (2011). Can charisma be taught? Tests of two interventions. *Academy of Management Learning & Education*, 10(3), 374–396. <https://doi.org/10.5465/amle.2010.0012>
- Antretter, T., Blohm, I., Grichnik, D., & Wincent, J. (2019). Predicting new venture survival: A Twitter-based machine learning approach to measuring online legitimacy. *Journal of Business Venturing Insights*, 11, Article e00109. <https://doi.org/10.1016/j.jbvi.2018.e00109>
- Antretter, T., Wesemann Lekkas, H., Djokovic, D., Souitaris, V., & Wincent, J. (2025). Not what you expected to see? Obesity stereotypes, expectancy violations, and angel investment decisions. *Journal of Business Venturing*, 40(5), Article 106510. <https://doi.org/10.1016/j.jbusvent.2025.106510>
- Balachandra, L., Briggs, T., Eddleston, K., & Brush, C. (2019). Don't pitch like a girl!: How gender stereotypes influence investor decisions. *Entrepreneurship Theory and Practice*, 43(1), 116–137. <https://doi.org/10.1177/1042258717728028>
- Barlow, M. A., Verhaal, J. C., & Angus, R. W. (2019). Optimal distinctiveness, strategic categorization, and product market entry on the Google Play app platform. *Strategic Management Journal*, 40(8), 1219–1242. <https://doi.org/10.1002/smj.3019>
- Bertrand, M., & Dufo, E. (2017). Field experiments on discrimination. *Handbook of Economic Field Experiments*, 1, 309–393. <https://doi.org/10.1016/bs.hefe.2016.08.004>
- Big Think. (2024, August 13). *How Bill Gates cemented the folkloric status of the “nerd founder”* (p. 1). <https://bigthink.com/business/how-bill-gates-cemented-the-folkloric-status-of-the-nerd-founder/>
- Bitektine, A., Hill, K., Song, F., & Vandenberghe, C. (2020). Organizational legitimacy, reputation, and status: Insights from micro-level measurement. *Academy of Management Discoveries*, 6(1), 107–136. <https://doi.org/10.5465/amd.2017.0007>
- Bittner, A., & Lau, B. (2021). *Women-led startups received just 2.3% of VC funding in 2020*. Harvard Business Review.
- Blank, S., & Dorf, B. (2012). *The startup owner's manual: The step-by-step guide for building a great company*. BookBaby.
- Blaseg, D., & Hornuf, L. (2024). Playing the business angel: The impact of well-known business angels on venture performance. *Entrepreneurship Theory and Practice*, 48(1), 171–204. <https://doi.org/10.1177/10422587231153603>
- Blohm, I., Antretter, T., Sirén, C., Grichnik, D., & Wincent, J. (2022). It's a peoples game, isn't it? A comparison between the investment returns of business angels and machine learning algorithms. *Entrepreneurship Theory and Practice*, 46(4), 1054–1091. <https://doi.org/10.1177/1042258720945206>
- Boerner, L., Fritz, T., & Frick, B. (2025). Investing in people, not in products: How age, gender, ethnicity, and attractiveness of entrepreneurial teams influence the decision-making of angel investors in Germany. *Journal of Business Economics*, 95(1), 37–74. <https://doi.org/10.1007/s11573-024-01206-7>

- Brewer, M. (1991). The social self: On being the same and different at the same time. *Personality and Social Psychology Bulletin*, 17(5), 475–482. <https://doi.org/10.1177/0146167291175001>
- Brewer, M. (2012). Optimal distinctiveness theory: Its history and development. *Handbook of Theories of Social Psychology*, 2(1), 81–98. <https://doi.org/10.4135/9781446201022.n30>
- Broer, P. N., Juran, S., Liu, Y.-J., Weichman, K., Tanna, N., Walker, M. E., Ng, R., & Persing, J. A. (2014). The impact of geographic, ethnic, and demographic dynamics on the perception of beauty. *Journal of Craniofacial Surgery*, 25(2), e157–e161. <https://doi.org/10.1097/SCS.0000000000000406>
- Brooks, A. W., Huang, L., Kearney, S. W., & Murray, F. (2014). Investors prefer entrepreneurial ventures pitched by attractive men. *Proceedings of the National Academy of Sciences USA*, 111(12), 4427–4431. <https://doi.org/10.1073/pnas.1321202111>
- Brush, C., Edelman, L. F., Manolova, T., & Welter, F. (2019). A gendered look at entrepreneurship ecosystems. *Small Business Economics*, 53(2), 393–408. <https://doi.org/10.1007/s11187-018-9992-9>
- Cao, Y., Guan, F., Li, Z., & Yang, Y. G. (2020). Analysts' beauty and performance. *Management Science*, 66(9), 4315–4335. <https://doi.org/10.1287/mnsc.2019.3336>
- Chan, T. H., Lee, Y. G., & Jung, H. (2021). Anchored differentiation: The role of temporal distance in the comparison and evaluation of new product designs. *Organization Science*, 32(6), 1523–1541. <https://doi.org/10.1287/orsc.2021.1454>
- Chandler, J. A., Anglin, A. H., Kanwal, F., & Short, J. C. (2024). No politics in funding pitches: An expectancy violations theory perspective of entrepreneurs' political expressions in crowdfunding. *Journal of Business Venturing*, 39(1), Article 106365. <https://doi.org/10.1016/j.jbusvent.2023.106365>
- Chollet, F. (2018). *Keras: The python deep learning library*. Retrieved September 5, 2023 from <https://keras.io/>
- Ciuchta, M., Letwin, C., Stevenson, R., McMahon, S., & Huvaj, N. (2018). Betting on the coachable entrepreneur: Signaling and social exchange in entrepreneurial pitches. *Entrepreneurship Theory and Practice*, 42(6), 860–885. <https://doi.org/10.1177/1042258717725520>
- Clarke, J. (2011). Revitalizing entrepreneurship: How visual symbols are used in entrepreneurial performances. *Journal of Management Studies*, 48(6), 1365–1391. <https://doi.org/10.1111/j.1467-6486.2010.01002.x>
- Clarke, J., Cornelissen, J., & Healey, M. (2019). Actions speak louder than words: How figurative language and gesturing in entrepreneurial pitches influences investment judgments. *Academy of Management Journal*, 62(2), 335–360. <https://doi.org/10.5465/amj.2016.1008>
- Clingingsmith, D., & Shane, S. (2018). Training aspiring entrepreneurs to pitch experienced investors: Evidence from a field experiment in the United States. *Management Science*, 64(11), 5164–5179. <https://doi.org/10.1287/mnsc.2017.2882>
- Colombo, M., Fisch, C., Momtaz, P., & Vismara, S. (2022). The CEO beauty premium: Founder CEO attractiveness and firm valuation in initial coin offerings. *Strategic Entrepreneurship Journal*, 16(3), 491–521. <https://doi.org/10.1002/sej.1417>
- Dávila, A., & Guasch, M. (2022). Managers' body expansiveness, investor perceptions, and firm forecast errors and valuation. *Journal of Accounting Research*, 60(2), 517–563. <https://doi.org/10.1111/1475-679X.12426>
- Deephhouse, D. L. (1999). To be different, or to be the same? It's a question (and theory) of strategic balance. *Strategic Management Journal*, 20(2), 147–166. [https://doi.org/10.1002/\(SICI\)1097-0266\(199902\)20:2<147::AID-SMJ11>3.0.CO;2-Q](https://doi.org/10.1002/(SICI)1097-0266(199902)20:2<147::AID-SMJ11>3.0.CO;2-Q)
- Dion, K., Berscheid, E., & Walster, E. (1972). What is beautiful is good. *Journal of Personality and Social Psychology*, 24(3), 285–290. <https://doi.org/10.1037/h0033731>
- Dipboye, R. L., Fromkin, H. L., & Wiback, K. (1975). Relative importance of applicant sex, attractiveness, and scholastic standing in evaluation of job applicant resumes. *Journal of Applied Psychology*, 60(1), 39–43. <https://doi.org/10.1037/h0076352>
- Eagly, A., Ashmore, R., Makhijani, M., & Longo, L. (1991). What is beautiful is good, but ...: A meta-analytic review of research on the physical attractiveness stereotype. *Psychological Bulletin*, 110(1), 109–128. <https://doi.org/10.1037/0033-2909.110.1.109>

- Eagly, A., & Karau, S. (2002). Role congruity theory of prejudice toward female leaders. *Psychological Review*, 109(3), 573–598. <https://doi.org/10.1037/0033-295X.109.3.573>
- Eisenthal, Y., Dror, G., & Ruppin, E. (2006). Facial attractiveness: Beauty and the machine. *Neural Computation*, 18(1), 119–142. <https://doi.org/10.1162/089976606774841602>
- Elsesser, K. M., & Lever, J. (2011). Does gender bias against female leaders persist? Quantitative and qualitative data from a large-scale survey. *Human Relations*, 64(12), 1555–1578. <https://doi.org/10.1177/0018726711424323>
- Faul, F., Erdfelder, E., Lang, A.-G., & Buchner, A. (2007). G* Power 3: A flexible statistical power analysis program for the social, behavioral, and biomedical sciences. *Behavior Research Methods*, 39(2), 175–191. <https://doi.org/10.3758/BF03193146>
- Fisher, G., Kotha, S., & Lahiri, A. (2016). Changing with the times: An integrated view of identity, legitimacy, and new venture life cycles. *Academy of Management Review*, 41(3), 383–409. <https://doi.org/10.5465/amr.2013.0496>
- Fisher, G., Kuratko, D. F., Bloodgood, J. M., & Hornsby, J. S. (2017). Legitimate to whom? The challenge of audience diversity and new venture legitimacy. *Journal of Business Venturing*, 32(1), 52–71. <https://doi.org/10.1016/j.jbusvent.2016.10.005>
- Fiske, S., Cuddy, A., Glick, P., & Xu, J. (2002). A model of (often mixed) stereotype content: Competence and warmth respectively follow from perceived status and competition. *Journal of Personality and Social Psychology*, 82(6), 878–902. <https://doi.org/10.1037/0022-3514.82.6.878>
- Forbes. (2016). *What's the hidden meaning behind Mark Zuckerberg's T-shirts?* <https://www.forbes.com/sites/zarastone/2016/07/26/mark-zuckerberg-facebook-wardrobe/>
- Garcia, B. (2013). Implementation of a double-hurdle model. *The Stata Journal*, 13(4), 776–794. <https://doi.org/10.1177/1536867X1301300406>
- Gold, S. J. (2018). A critical race theory approach to black American entrepreneurship. In Z. Valdez, & M. Romero (Eds.), *Intersectionality and ethnic entrepreneurship* (pp. 145–166). Routledge. <https://doi.org/10.4324/9781315164373-8>
- Greenberg, J., & Mollick, E. (2017). Activist choice homophily and the crowdfunding of female founders. *Administrative Science Quarterly*, 62(2), 341–374. <https://doi.org/10.1177/0001839216678847>
- Grimes, M., Von Krogh, G., Feuerriegel, S., Rink, F., & Gruber, M. (2023). From scarcity to abundance: Scholars and scholarship in an age of generative artificial intelligence. *Academy of Management Journal*, 66(6), 1617–1624. <https://doi.org/10.5465/amj.2023.4006>
- Gupta, V. K., Goktan, A. B., & Gunay, G. (2014). Gender differences in evaluation of new business opportunity: A stereotype threat perspective. *Journal of Business Venturing*, 29(2), 273–288. <https://doi.org/10.1016/j.jbusvent.2013.02.002>
- Halberstadt, J., & Rhodes, G. (2000). The attractiveness of nonface averages: Implications for an evolutionary explanation of the attractiveness of average faces. *Psychological Science*, 11(4), 285–289. <https://doi.org/10.1111/1467-9280.00257>
- Hamermesh, D. (2011). *Beauty pays: Why attractive people are more successful*. Princeton University Press.
- Hamermesh, D., & Biddle, J. (1993). *Beauty and the labor market* (NBER Working Paper). NBER.
- Harrison, R. T., & Mason, C. M. (2017). Backing the horse or the jockey? Due diligence, agency costs, information and the evaluation of risk by business angel investors. *International Review of Entrepreneurship*, 15(3), 269–290.
- Heckman, J. J. (1979). Sample selection bias as a specification error. *Econometrica: Journal of the Econometric Society*, 47(1), 153–161. <https://doi.org/10.2307/1912352>
- Heflick, N. A., & Goldenberg, J. L. (2009). Objectifying Sarah Palin: Evidence that objectification causes women to be perceived as less competent and less fully human. *Journal of Experimental Social Psychology*, 45(3), 598–601. <https://doi.org/10.1016/j.jesp.2009.02.008>
- Heflick, N. A., Goldenberg, J. L., Cooper, D. P., & Puvia, E. (2011). From women to objects: Appearance focus, target gender, and perceptions of warmth, morality and competence. *Journal of Experimental Social Psychology*, 47(3), 572–581. <https://doi.org/10.1016/j.jesp.2010.12.020>

- Heilman, M. (2001). Description and prescription: How gender stereotypes prevent women's ascent up the organizational ladder. *Journal of Social Issues*, 57(4), 657–674. <https://doi.org/10.1111/0022-4537.00234>
- Heilman, M. (2012). Gender stereotypes and workplace bias. *Research in Organizational Behavior*, 32, 113–135. <https://doi.org/10.1016/j.riob.2012.11.003>
- Heilman, M., & Saruwatari, L. (1979). When beauty is beastly: The effects of appearance and sex on evaluations of job applicants for managerial and nonmanagerial jobs. *Organizational Behavior and Human Performance*, 23(3), 360–372. [https://doi.org/10.1016/0030-5073\(79\)90003-5](https://doi.org/10.1016/0030-5073(79)90003-5)
- Higgins, E. T., Rossignac-Milon, M., & Echterhoff, G. (2021). Shared reality: From sharing-is-believing to merging minds. *Current Directions in Psychological Science*, 30(2), 103–110. <https://doi.org/10.1177/0963721421992027>
- Hsu, D. K., Simmons, S. A., & Wieland, A. M. (2017). Designing entrepreneurship experiments: A review, typology, and research agenda. *Organizational Research Methods*, 20(3), 379–412. <https://doi.org/10.1177/1094428116685613>
- Huang, X., Ivković, Z., Jiang, J. X., & Wang, I. Y. (2023). Angel investment and first impressions. *Journal of Financial Economics*, 149(2), 161–178. <https://doi.org/10.1016/j.jfineco.2023.05.001>
- Jiang, L., Yin, D., & Liu, D. (2019). Can joy buy you money? The impact of the strength, duration, and phases of an entrepreneur's peak displayed joy on funding performance. *Academy of Management Journal*, 62(6), 1848–1871. <https://doi.org/10.5465/amj.2017.1423>
- Johnson, S., Podratz, K., Dipboye, R., & Gibbons, E. (2010). Physical attractiveness biases in ratings of employment suitability: Tracking down the “beauty is beastly” effect. *Journal of Social Psychology*, 150(3), 301–318. <https://doi.org/10.1080/00224540903365414>
- Johnson, S., Sitzmann, T., & Nguyen, A. T. (2014). Don't hate me because I'm beautiful: Acknowledging appearance mitigates the “beauty is beastly” effect. *Organizational Behavior and Human Decision Processes*, 125(2), 184–192. <https://doi.org/10.1016/j.obhdp.2014.09.006>
- Kalvapalle, S. G., Phillips, N., & Cornelissen, J. (2024). Entrepreneurial pitching: A critical review and integrative framework. *Academy of Management Annals*, 18(2), 550–599. <https://doi.org/10.5465/annals.2022.0066>
- Kanze, D., Conley, M. A., Okimoto, T. G., Phillips, D. J., & Merluzzi, J. (2020). Evidence that investors penalize female founders for lack of industry fit. *Science Advances*, 6(48), 1–10. <https://doi.org/10.1126/sciadv.abd7664>
- Kanze, D., Huang, L., Conley, M., & Higgins, E. T. (2018). We ask men to win and women not to lose: Closing the gender gap in startup funding. *Academy of Management Journal*, 61(2), 586–614. <https://doi.org/10.5465/amj.2016.1215>
- Langlois, J., & Roggman, L. (1990). Attractive faces are only average. *Psychological Science*, 1(2), 115–121. <https://doi.org/10.1111/j.1467-9280.1990.tb00079.x>
- Lee, M., & Huang, L. (2018). Gender bias, social impact framing, and evaluation of entrepreneurial ventures. *Organization Science*, 29(1), 1–16. <https://doi.org/10.1287/orsc.2017.1172>
- Lennon, S. J. (1990). Effects of clothing attractiveness on perceptions. *Home Economics Research Journal*, 18(4), 303–310. <https://doi.org/10.1177/1077727X9001800403>
- Letwin, C., Ciuchta, M. P., Johnson, M., Stevenson, R., & Ford, C. (2024). Passion and attractiveness on display: An examination of gender bias in crowdfunding. *Small Business Economics*, 63(1), 165–192. <https://doi.org/10.1007/s11187-023-00808-9>
- Lévesque, M., Obschonka, M., & Nambisan, S. (2022). Pursuing impactful entrepreneurship research using artificial intelligence. *Entrepreneurship Theory and Practice*, 46(4), 803–832. <https://doi.org/10.1177/1042258720927369>
- Liang, L., Lin, L., Jin, L., Xie, D., & Li, M. (2018, August 20–24). *SCUT-FBP5500: A diverse benchmark dataset for multi-paradigm facial beauty prediction* [Conference session]. 2018 24th International conference on pattern recognition (ICPR), Beijing, China.
- Liao, Z., Zhang, J., Wang, N., Bottom, W., Deichmann, D., & Tang, P. M. (2023). The gendered liability of venture novelty. *Academy of Management Journal*, 67(2), 299–330. <https://doi.org/10.5465/amj.2021.1425>

- Lounsbury, M., & Glynn, M. A. (2001). Cultural entrepreneurship: Stories, legitimacy, and the acquisition of resources. *Strategic Management Journal*, 22(6–7), 545–564. <https://doi.org/10.1002/smj.188>
- Ma, D., Correll, J., & Wittenbrink, B. (2015). The Chicago face database: A free stimulus set of faces and norming data. *Behavior Research Methods*, 47(4), 1122–1135. <https://doi.org/10.3758/s13428-014-0532-5>
- Malmström, M., Johansson, J., & Wincent, J. (2017). Gender stereotypes and venture support decisions: How governmental venture capitalists socially construct entrepreneurs' potential. *Entrepreneurship Theory and Practice*, 41(5), 833–860. <https://doi.org/10.1111/etap.12275>
- Mason, C., & Stark, M. (2004). What do investors look for in a business plan? A comparison of the investment criteria of bankers, venture capitalists and business angels. *International Small Business Journal*, 22(3), 227–248. <https://doi.org/10.1177/0266242604042377>
- Matthews, M. J., Anglin, A. H., Drover, W., & Wolfe, M. T. (2024). Just a number? Using artificial intelligence to explore perceived founder age in entrepreneurial fundraising. *Journal of Business Venturing*, 39(1), Article 106361. <https://doi.org/10.1016/j.jbusvent.2023.106361>
- Maxwell, A. L., Jeffrey, S. A., & Lévesque, M. (2011). Business Angel early stage decision making. *Journal of Business Venturing*, 26(2), 212–225. <https://doi.org/10.1016/j.jbusvent.2009.09.002>
- Mendick, H., Ottemo, A., Berge, M., & Silfver, E. (2023). Geek entrepreneurs: The social network, Iron Man and the reconfiguration of hegemonic masculinity. *Journal of Gender Studies*, 32(3), 283–295. <https://doi.org/10.1080/09589236.2021.1981836>
- Mitteness, C. R., DeJordy, R., Ahuja, M. K., & Sudek, R. (2016). Extending the role of similarity attraction in friendship and advice networks in angel groups. *Entrepreneurship Theory and Practice*, 40(3), 627–655. <https://doi.org/10.1111/etap.12135>
- Murnieks, C. Y., Haynie, J. M., Wiltbank, R. E., & Harting, T. (2011). 'I like how you think': Similarity as an interaction bias in the investor–entrepreneur dyad. *Journal of Management Studies*, 48(7), 1533–1561. <https://doi.org/10.1111/j.1467-6486.2010.00992.x>
- Nault, K., Pitesa, M., & Thau, S. (2020). The attractiveness advantage at work: A cross-disciplinary integrative review. *Academy of Management Annals*, 14(2), 1103–1139. <https://doi.org/10.5465/annals.2018.0134>
- Navis, C., & Glynn, M. A. (2011). Legitimate distinctiveness and the entrepreneurial identity: Influence on investor judgments of new venture plausibility. *Academy of Management Review*, 36(3), 479–499. <https://doi.org/10.5465/AMR.2011.61031809>
- Pollack, J. M., Rutherford, M. W., & Nagy, B. G. (2012). Preparedness and cognitive legitimacy as antecedents of new venture funding in televised business pitches. *Entrepreneurship Theory and Practice*, 36(5), 915–939. <https://doi.org/10.1111/j.1540-6520.2012.00531.x>
- Radoynovska, N., & King, B. G. (2019). To whom are you true? Audience perceptions of authenticity in nascent crowdfunding ventures. *Organization Science*, 30(4), 781–802. <https://doi.org/10.1287/orsc.2018.1253>
- Reber, R., Schwarz, N., & Winkielman, P. (2004). Processing fluency and aesthetic pleasure: Is beauty in the perceiver's processing experience? *Personality and Social Psychology Review*, 8(4), 364–382. https://doi.org/10.1207/s15327957pspr0804_3
- Rosseel, Y. (2012). Lavaan: An R package for structural equation modeling. *Journal of Statistical Software*, 48(1), 1–36. <https://doi.org/10.18637/jss.v048.i02>
- Rossignac-Milon, M., Bolger, N., Zee, K. S., Boothby, E. J., & Higgins, E. T. (2021). Merged minds: Generalized shared reality in dyadic relationships. *Journal of Personality and Social Psychology*, 120(4), 882–911. <https://doi.org/10.1037/pspi0000266>
- Rossignac-Milon, M., & Higgins, E. T. (2018). Epistemic companions: Shared reality development in close relationships. *Current Opinion in Psychology*, 23, 66–71. <https://doi.org/10.1016/j.copsyc.2018.01.001>
- Rossignac-Milon, M., Pillemer, J., Bailey, E. R., Horton Jr, C. B., & Iyengar, S. S. (2024). Just be real with me: Perceived partner authenticity promotes relationship initiation via shared reality.

- Organizational Behavior and Human Decision Processes*, 180, Article 104306. <https://doi.org/10.1016/j.obhdp.2023.104306>
- Rothe, R., Timofte, R., & Van Gool, L. (2016). *Some like it hot-visual guidance for preference prediction* [Conference session]. IEEE conference on computer vision and pattern recognition, Las Vegas, NV, USA
- Ruffle, B., & Shtudiner, Z. (2015). Are good-looking people more employable? *Management Science*, 61(8), 1760–1776. <https://doi.org/10.1287/mnsc.2014.1927>
- Sanchez-Ruiz, P., Wood, M. S., & Long-Ruboyianes, A. (2021). Persuasive or polarizing? The influence of entrepreneurs' use of ingratiation rhetoric on investor funding decisions. *Journal of Business Venturing*, 36(4), Article 106120. <https://doi.org/10.1016/j.jbusvent.2021.106120>
- Schreiber, R., Hess, M., Grichnik, D., Shepherd, D. A., Tobler, P. N., & Wincent, J. (2024). An attractiveness bias? How women entrepreneurs' physical appearance affects men investors. *Journal of Management*, 51(7), 3148–3180. <https://doi.org/10.1177/01492063241249699>
- Seigner, B. D. C., McKenny, A. F., & Reetz, D. K. (2024). Old but gold? Examining the effect of age bias in reward-based crowdfunding. *Journal of Business Venturing*, 39(3), Article 106381. <https://doi.org/10.1016/j.jbusvent.2024.106381>
- Seigner, B. D. C., & Milanov, H. (2023). Mirror, mirror: A gendered lens on female entrepreneurs' facial attractiveness in reward-based crowdfunding. *Journal of Business Venturing Insights*, 20, Article e00399. <https://doi.org/10.1016/j.jbvi.2023.e00399>
- Serengil, S. I., & Ozpinar, A. (2020). *Lightface: A hybrid deep face recognition framework* [Conference session]. Innovations in Intelligent Systems and Applications Conference (ASYU), Istanbul, Turkey.
- Serengil, S. I., & Ozpinar, A. (2021). *Hyperextended lightface: A facial attribute analysis framework* [Conference session]. International Conference on Engineering and Emerging Technologies (ICEET), Istanbul, Turkey.
- Sofer, C., Dotsch, R., Wigboldus, D. H., & Todorov, A. (2015). What is typical is good: The influence of face typicality on perceived trustworthiness. *Psychological Science*, 26(1), 39–47. <https://doi.org/10.1177/0956797614554955>
- Souitaris, V., Peng, B., Zerbinati, S., & Shepherd, D. (2023). Specialists, generalists, or both? Founders' multidimensional breadth of experience and entrepreneurial ventures' fundraising at IPO. *Organization Science*, 34(2), 557–588. <https://doi.org/10.1287/orsc.2022.1581>
- Stroe, S., Sirén, C., & Vanacker, T. (2026). Crowd evaluations of entrepreneurs with physical disabilities: Stereotype subtyping through the lens of benevolent ableism. *Entrepreneurship Theory and Practice*. Advance online publication. <https://doi.org/10.1177/10422587261444756>
- Taeuscher, K., Bouncken, R., & Pesch, R. (2021). Gaining legitimacy by being different: Optimal distinctiveness in crowdfunding platforms. *Academy of Management Journal*, 64(1), 149–179. <https://doi.org/10.5465/amj.2018.0620>
- Taeuscher, K., Zhao, E. Y., & Lounsbury, M. (2022). Categories and narratives as sources of distinctiveness: Cultural entrepreneurship within and across categories. *Strategic Management Journal*, 43(10), 2101–2134. <https://doi.org/10.1002/smj.3391>
- Tasselli, S., Kilduff, M., & Menges, J. I. (2015). The microfoundations of organizational social networks: A review and an agenda for future research. *Journal of Management*, 41(5), 1361–1387. <https://doi.org/10.1177/0149206315573996>
- The Times. (2025). *The geek who builds lethal AI weapons, with a hotline to Trump*. <https://www.the-times.com/uk/defence/article/palmer-lucky-ai-billionaire-oculus-vr-dive-pjf20qktj>
- Todorov, A., Mandisodza, A. N., Goren, A., & Hall, C. C. (2005). Inferences of competence from faces predict election outcomes. *Science*, 308(5728), 1623–1626. <https://doi.org/10.1126/science.1110589>
- Tost, L. P. (2011). An integrative model of legitimacy judgments. *Academy of Management Review*, 36(4), 686–710. <https://doi.org/10.5465/AMR.2011.65554690>

- Van Werven, R., Bouwmeester, O., & Cornelissen, J. P. (2015). The power of arguments: How entrepreneurs convince stakeholders of the legitimate distinctiveness of their ventures. *Journal of Business Venturing*, 30(4), 616–631. <https://doi.org/10.1016/j.jbusvent.2014.08.001>
- Vongswasdi, P., de Groote, J., Heinrich, J., & Ladge, J. (2025). Beyond the prototype: Unpacking the intersectional identity and image work of female minority founders in a startup context. *Journal of Applied Psychology*, 110(5), 697–722. <https://doi.org/10.1037/apl0001234>
- Warnick, B., Davis, B., Allison, T., & Anglin, A. (2021). Express yourself: Facial expression of happiness, anger, fear, and sadness in funding pitches. *Journal of Business Venturing*, 36(4), 1–26. <https://doi.org/10.1016/j.jbusvent.2021.106109>
- Wellman, N., Tröster, C., Grimes, M., Roberson, Q., Rink, F., & Gruber, M. (2023). Publishing multimethod research in AMJ: A review and best-practice recommendations. *Academy of Management Journal*, 66(4), 1007–1015. <https://doi.org/10.5465/amj.2023.4004>
- Wesemann, H., & Antretter, T. (2023). The internationalization of business angel networks: Do syndicates increase cross-border investment returns? *Venture Capital*, 25(4), 487–514. <https://doi.org/10.1080/13691066.2022.2082898>
- Wesemann Lekkas, H., Antretter, T., Shepherd, D., & Wincent, J. (2025). Following in the footsteps of others: Social proof in angel groups. *Entrepreneurship Theory and Practice*, 49(4), 1037–1070. <https://doi.org/10.1177/10422587251315657>
- Wesemann Lekkas, H., Antretter, T., Souitaris, V., Shepherd, D., & Wincent, J. (2025). Appearing authentic: How dress formality influences perceived authenticity in investment evaluations. *Journal of Management*. Advance online publication. <https://doi.org/10.1177/01492063251366209>
- Willis, J., & Todorov, A. (2006). First impressions: Making up your mind after a 100-ms exposure to a face. *Psychological Science*, 17(7), 592–598. <https://doi.org/10.1111/j.1467-9280.2006.01750.x>
- Winkielman, P., Halberstadt, J., Fazendeiro, T., & Catty, S. (2006). Prototypes are attractive because they are easy on the mind. *Psychological Science*, 17(9), 799–806. <https://doi.org/10.1111/j.1467-9280.2006.01785.x>
- Yahoo! Finance. (2023). *Jeff Bezos was described as a geeky, out-of-shape, balding, nerd with a hyena-like laugh in his 20s before founding Amazon: He embraced it* (p. 1). <https://finance.yahoo.com/news/jeff-bezos-described-geeky-shape-181913929.html>
- Younger, S., Preedom, J., & Navis, C. (2025). Legitimately distinct entrepreneurial stories in evolving market categories. *Journal of Business Venturing*, 40(1), Article 106436. <https://doi.org/10.1016/j.jbusvent.2024.106436>
- Zebrowitz, L. A., Bronstad, P. M., & Lee, H. K. (2007). The contribution of face familiarity to ingroup favoritism and stereotyping. *Social Cognition*, 25(2), 306–338. <https://doi.org/10.1521/soco.2007.25.2.306>
- Zimmerman, M. A., & Zeitz, G. J. (2002). Beyond survival: Achieving new venture growth by building legitimacy. *Academy of Management Review*, 27(3), 414–431. <https://doi.org/10.2307/4134387>
- Zoph, B., Vasudevan, V., Shlens, J., & Le, Q. V. (2018, June 18–22). *Learning transferable architectures for scalable image recognition* [Conference session]. IEEE conference on computer vision and pattern recognition, Salt Lake City, UT, USA.
- Zunino, D., Dushnitsky, G., & Van Praag, M. (2022). How do investors evaluate past entrepreneurial failure? Unpacking failure due to lack of skill versus bad luck. *Academy of Management Journal*, 65(4), 1083–1109. <https://doi.org/10.5465/amj.2018.0579>

Author Biographies

Henrik Lekkas is an Associate Professor of Entrepreneurship/Owner-Managed Firms at the University of St. Gallen. His research examines entrepreneurial communication: how entrepreneurs present themselves and their ideas, how audiences and investors judge them, and how systemic biases shape access to entrepreneurial resources. His work draws on organizational behavior, cognitive decision-making, and linguistics to understand how founders and investors process information and make decisions under uncertainty.

Torben Antretter is a Senior Lecturer for Entrepreneurship at the University of St. Gallen and an Adjunct Professor of Entrepreneurial Finance at IE Business School. His research focuses on early-stage investment decision-making as well as the application of artificial intelligence in entrepreneurial finance. He is the also founder of RightNow, an award-winning legal-tech startup recognized by the Financial Times as one of Europe's fastest-growing companies in 2021 and 2022. His entrepreneurial career has been the subject of three Harvard Business School case studies, and earned him a spot on Forbes 30 Under 30 in 2020.

Ivo Blohm is an Associate Professor for Information Systems and Business Analytics at the Institute of Information Systems and Digital Business at the University of St. Gallen. He studied at Technische Universität München from which he also obtained a doctorate. His research focuses on leveraging business analytics and AI in organizations to improve decision-making, collaboration, work, and innovation processes. His work has appeared, among others, in such journals as Information Systems Research, Journal of Management Information Systems, Journal of Information Technology, Entrepreneurship: Theory and Practice, MIT Sloan Management Review, and Harvard Business Review.

Charlotta Sirén is associate professor of management, with a special focus on entrepreneurship and innovation, at the University of St. Gallen. Her research examines sustainability-oriented and socially impactful entrepreneurship, using innovative methodological approaches to advance theory and empirical insight.

Joakim Wincent is a Professor in Entrepreneurship and Management at the University of St. Gallen and Hanken School of Economics. His current research focuses largely on entrepreneurs and innovation processes in new and existing organizations. Joakim is interested in the psychological challenges of entrepreneurs and how to improve their individual conditions, but also the general challenges with developing high potential and highly innovative start-ups. He is identifying factors that promote entrepreneurship in new and existing organizations and future challenges for companies that aim to be innovation leaders during the next ten-year period.

Appendix I. Assessing Attractiveness With Artificial Neural Networks

We built upon *Google's NASNetMobile* infrastructure (Zoph et al., 2018) and trained an ANN to analyze facial data from images of entrepreneurs. We fine-tuned the ANN for our specific task using the *SCUT-FBP-5500* dataset for “facial beauty prediction” (Liang et al., 2018) as well as the *Chicago Face Database* (Ma et al., 2015).

Technical Details About the Development of the ANN

The ANN was developed using the *Keras* interface for *TensorFlow* (Chollet, 2018) in Python. *Keras* contains a series of pretrained ANNs, out of which we selected *NASNetMobile* for fine-tuning. We removed the final block and replaced it with a fully connected dense layer with a single node to adapt the model for a regression task (as opposed to the classification task for which it was initially trained). We followed three steps in the fine-tuning process. First, we reinitialized the factor weights between the original pretrained ANNs and the newly added final dense layer by freezing the previous layers of the model and training the resulting model with the *SCUT-FBP-5500* dataset (Liang et al., 2018). Second, we retrained the model with the same dataset but allowed the model

Table A1. Prediction Accuracy of Our ANN, Human Raters, and Public Attractiveness Scoring (Leave-One-Out Cross-Validation).

Rater	Root mean squared error (RMSE)	Mean absolute error (MAE)
ANN	0.1890	0.1562
Human raters	0.2336	0.1920
Public attractiveness scoring website	0.2693	0.2161

Note. ANN = artificial neural network.

to update factor weights in all layers. Then, in a final step, we further fine-tuned the model using the *Chicago Face Database*. In order to have comparable attractiveness ratings, we transformed the seven-point attractiveness rating of the *Chicago Face Database* to a five-point rating prior to training.

Following established machine-learning practice in entrepreneurship research (e.g., Blohm et al., 2022), we partitioned both image databases into three disjoint subsets: training (70%), testing (21%), and validation (9%). This partitioning matters because a neural network can fit idiosyncratic noise in the data it is trained on, yielding deceptively low error on those same observations while generalizing poorly to data it has not seen (i.e., overfitting). Reserving a testing set that played no role in training therefore lets us gauge the ANN's true out-of-sample predictive accuracy, while the validation set governed early stopping.

Under early stopping, the model is fit on the training set alone while the validation set serves as an independent checkpoint. Because training proceeds iteratively, with each pass updating the network weights via backpropagation to reduce error on the training data, we evaluated the model against the validation images after every update, comparing predicted attractiveness to the observed ratings. Training was halted once validation performance ceased to improve over a preset number of epochs, the point at which the model begins to overfit.

To train the models, we used a maximum of 100 epochs, a batch size of 16, an ADAM optimizer with an initial learning rate of 0.001 that was reduced by a factor of 10 when model performance did not improve for 10 epochs, and 11 early stopping iterations for all models. We also used mean squared error as a loss function that was minimized during the training procedure. During model training, we used an image-augmentation strategy to improve prediction performance. In other words, in each epoch, each image was randomly altered in terms of zooming factor, cropping, rotation, color intensity, etc.

Evaluating the ANN's Accuracy

We evaluated our models' performance on three levels. First, we calculated the prediction errors of the resulting model on the testing data for the *SCUT-FBP-5500* data set and compared those errors to the benchmarks reported in Liang et al. (2018). The comparison showed that our ANN performed very similarly. Liang et al.'s (2018) most accurate model (based on the *ResNeXt-50* architecture) had a root mean squared error (RMSE) of 0.3325 and mean absolute error (MAE) of 0.2518. By comparison, our ANN reached an RMSE of 0.3281 and MAE of 0.2520.

Second, we asked 22 independent raters to provide their subjective ratings of attractiveness for 129 real entrepreneurs. 50% of the raters were female, and 54.5% were White. The mean age of the raters was 31.1 years. To compare the predictive validity of our ANN, we applied leave-one-out cross-validation. We calculated the average attractiveness rating of 21 raters and the deviation of the twenty-second rater using RMSE and MAE, and we repeated that procedure for all other permutations. Similarly, we calculated the same error measures for the ANN and the 20-s “21-rater means.” Table A1 compares the average prediction errors for the human raters and our ANN, and shows that the human raters consistently produced higher prediction errors. On average, the ANN beat its human counterparts in predicting the group’s average attractiveness rating.

Third, we compared our ANN approach to four proprietary attractiveness scoring systems available on the internet, all of which were used in previous research (hotness.ai, prettyscale.com, beautyscores.com, and beautyscoretest.com). We scored all founder pictures with these services and integrated these scores into the leave-one-out cross-validation procedure. As all attractiveness scores were measured on different scales, we normalized all human and machine-generated attractiveness ratings, such that they ranged from 0 to 1. The results in Table A1 show that these services were also inferior to our ANN in predicting the average attractiveness scores of the human raters. Given these extensive evaluation results, we conclude that our attractiveness measurement produces accurate and robust results.

Appendix 2. AI Image Generation Code

Model: ChatGPT o4-mini

Create a hyperrealistic triptych (three-panel portrait) of the same 30-year-old person (from the uploaded portrait). Each panel must look like a high-resolution studio photograph with lifelike skin texture, natural lighting, and sharp realistic detail. Show all three faces fully and side-by-side, straight-on, same head size, perfectly aligned. No cropping or overlap. Background, lighting, clothing, hairstyle, and neutral expression remain identical across all three images.

Only perceived facial attractiveness changes—exclusively via feature proportions, symmetry, and overall aesthetic harmony (not age, mood, makeup, or lighting).

Panel 1—Low aesthetic harmony (“unattractive”):

- Strong left–right asymmetries (eye height/size, eyebrow arch, jaw width, protruding ears).
- Highly disproportionate feature sizes/positions (e.g., slightly oversized nose versus mouth, receded chin, long philtrum, crowded or wide-set eyes).
- Vertical thirds or horizontal fifths strongly off-balance.
- Weak or abrupt bone structure (flat cheekbones, deviated nasal bridge, off-center chin).
- Keep skin consistent with other panels (only subtle imperfections); no heavy emphasis on blemishes.

Panel 2—Moderate harmony (“average”):

- Mostly symmetrical with minor irregularities (slight eye or lip asymmetry, gentle under-eye puffiness).
- Proportions close to population means; overall ordinary and unobtrusive.
- Natural pores and texture preserved.

Panel 3—High aesthetic harmony (“highly attractive”):

- Strong bilateral symmetry; balanced eye spacing; harmonious nose, lips, and jawline.
- Defined but natural bone structure (clear jawline, proportional cheekbones).
- Healthy-looking skin with realistic texture (no plastic smoothness).

Global constraints:

- Identical age (30), hairstyle, pose, and neutral facial expression in all three portraits.
- Make sure that the person in the attractive condition is not looking younger than the one in the unattractive condition.
- Identical hairstyle as in the uploaded photo.
- Same studio setup: lighting, background, camera angle, focal length.
- All three heads equal scale and perfectly aligned, as if shot in one session.

Emphasize: Structural/gestalt differences in attractiveness.

Avoid: Dramatic skin damage, aging cues, exaggerated makeup, accessories, fantasy elements, or expression changes.