



## The growth aspirations of underdog entrepreneurs

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### ABSTRACT

A growing number of studies suggest that underdogs have a propensity for entrepreneurship. However, the underdog entrepreneur's propensity for firm growth after launching their ventures remains largely unknown. In this paper, we advance our understanding of underdog entrepreneurs by focusing on their entrepreneurial growth aspirations. More specifically, we leverage insights from the underdog theory of entrepreneurship, entrepreneurial growth aspirations, and prospect theory as a first step in uncovering the relationship between underdog attributes and firm growth. To test our model, we leverage a portfolio of loan applications from entrepreneurs based in the United States. Our findings suggest that underdog attributes are associated with growth aspirations, and higher business incomes negatively moderate this relationship.

### 1. Introduction

While adversity is an inextricable aspect of the entrepreneurial journey, there is growing evidence that systemic, long-term adversity not only inspires the action that sets the journey in motion (Awaworyi Churchill, Smyth, & Trinh, 2023; Cheng, et al., 2021) but also stimulates the resilience to succeed as the journey unfolds (Yu et al., 2022). This emerging research stream on the underdog theory of entrepreneurship (Miller & Le Breton-Miller, 2017) describes these entrepreneurs as individuals who experience immutable, personal adversities that become ingrained in the individual, often originating in early childhood. Underdog entrepreneurs defy common stereotypes and have become a focal point in calls to make the entrepreneurship literature more inclusive (Bakker & McMullen, 2023) and entrepreneurship theory more veridical (Van Lent, Hunt, & Lerner, 2022).

Whereas extant knowledge on long-term hardship, such as cumulative inequality (Schafer, Ferraro, & Mustillo, 2011), illuminates the negative consequences of adversities, Miller & Le Breton-Miller's (2017) underdog theory of entrepreneurship offers a juxtaposition. The diverse attributes of an underdog, which can span cognitive issues such as neurodiversity to socioeconomic challenges such as poverty, can rather be seen as sources of strength. The emerging stream of empirical research supports the thesis that underdog attributes can indeed be a strength, and recent findings suggest that underdog attributes lead to strong social ties (Awaworyi Churchill et al., 2021), resilience (Yu et al., 2022), resourcefulness (Ge et al., 2022), and adaptiveness (Baron et al.,

2018). Miller and Le Breton-Miller (2017) note that underdog attributes reduce the aversion to risk, as hardships such as poverty or the simultaneous effects of poverty and neurodiversity may significantly alter one's perceptions of risk. One area where risk preferences are most evident is the area of entrepreneur's growth aspirations (Wennberg, Delmar, & McKelvie, 2016). Entrepreneurial growth aspirations are likely to be a key antecedent to the numerous underdog 'rags to riches' anecdotes that are common in entrepreneurship (e.g., Oprah Winfrey). However, the question of whether underdog entrepreneurs have higher growth aspirations than other types of entrepreneurs remains open.

This research question is critical, as a common goal of entrepreneurship among marginalized groups is to achieve economic prosperity (Pidduck & Clark, 2021) and disrupt patterns of systemic adversity (Shepherd & Williams, 2020). However, to truly break free, underdog entrepreneurs must achieve sustainable, long-term success (cf. van Gelderen, 2016). Firm growth offers a solution to this conundrum, as it provides a continuous flow of new resources to the nascent firm and thus a continuous flow of opportunities for the entrepreneur (McKelvie, Brattström, & Dennis Jr., 2021). However, growth aspirations are heterogeneous in that not every entrepreneur aspires to grow. Furthermore, the level of these aspirations can vary. Entrepreneurial growth aspirations are predicated on feelings about changes within the firm (Wiklund, Davidsson, & Delmar, 2003), perceptions of the institutional environment (Estrin, Mickiewicz, & Rebmann, 2017), and the risk taken on regarding the potential of economic losses during growth (Wennberg et al., 2016). In other words, growth aspirations are not straightforward.

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Thus, in this study, we extend the underdog theory of entrepreneurship by assessing the relationship between entrepreneurs' underdog attributes and their entrepreneurial growth aspirations. To do so, we examine underdog attributes as a cumulative set of socioeconomic challenges (e.g., poverty, gender, disability, naturalization status) across a set of entrepreneurs seeking loans for their business, where they directly identify their aspirations to grow (or not).

This study offers the following contributions to entrepreneurship literature. In comparison to studies focusing on entrepreneurial aspirations (e.g., launching a firm), growth aspirations represents an area that remains understudied (Murnieks, Klotz, & Shepherd, 2020). The research focusing on entrepreneurial growth aspirations suggests that they are driven by individual factors, such as ability (Wiklund & Shepherd, 2003) or wealth accumulation (McKelvie et al., 2021), and contextual factors, such as bankruptcy laws (Estrin et al., 2017). Notably, the underdog experience is a culmination of both individual attributes and their underlying context, suggesting that underdog attributes might be a strong predictor of entrepreneurial growth aspirations. Herein, we provide early-stage evidence that underdog attributes are associated with growth aspirations and offer a first step in uncovering how the growth process might unfold for an underdog entrepreneur. In other words, the underdog theory of entrepreneurship has the potential to inform the growth literature as much as vice versa.

Growth is a natural 'next step' for the burgeoning underdog theory of entrepreneurship. Recent studies converge on the idea that underdog experience increases the propensity toward entrepreneurship, suggesting that underdogs are a significant part of the entrepreneurial population (Awaworyi Churchill et al., 2021; Cheng et al., 2021). Thus, we heed the call for more inclusive entrepreneurship theories (Bakker & McMullen, 2023) and offer a more veridical theory of entrepreneurial growth aspirations by accounting for underdog attributes as an accumulation of adversities (e.g., Schafer et al., 2011). For example, the experiences of an immigrant entrepreneur (one underdog attribute) might differ substantially from being an impoverished immigrant entrepreneur (two simultaneous underdog attributes). This continuous measurement approach has precedence; Yu et al. (2022) created a continuous variable from a set of indicators taken from survey responses to measure early-childhood adversities, and Awaworyi Churchill et al. (2021) and Awarory Churchill et al. (2023) measured the log of bombings in a geographical area and the sum of negative life events, respectively, to a similar effect. We begin with a review of what an underdog is and, subsequently, review the characteristics of the underdog entrepreneur.

## 2. The underdog

The underdog is a pervasive and integral part of human history. In scenarios where the outcome is uncertain, the underdog is understood to carry some type of disadvantage and thus is less likely to be perceived as a 'winner' (Nurmohamed, 2020; Steele & Lovelace, 2021; Vandello, Goldschmied, & Richards, 2007). Research suggests that these perceptions are consequential; underdog status can influence the performance of the underdog, and as such, it has drawn interest from the broader management domain.

The Pygmalion (Eden, 1990) and Golem (Oz & Eden, 1994) effects, which test outcomes when an authority figure bestows either high or low expectations on an individual, respectively, offer foundational insights into the underdog phenomena. These studies suggest a 'self-fulfilling prophecy,' where the subjects tend to perform in line with expectations. Notably, while the Golem effect is more aligned with underdog status as it induces low expectations, it remains less studied due to ethical concerns (Reynolds, 2007), and as such, the Pygmalion effect has undergone greater empirical scrutiny (McNatt, 2000).

Recent efforts have revived and refined the underdog concept and challenged the notion that underdog status yields inferior outcomes (Nurmohamed, 2020). An interesting facet of the underdog

phenomenon is that people find the underdog appealing and relatable (Paharia et al., 2011; Vandello et al., 2007). Steele and Lovelace (2021) theorized that organizational leaders can productively harness a collective underdog identity, and that such a collective identity is likely to enhance members' approaches to risk-taking and well-being. In this sense, the disadvantages inherent in underdog status reduce pressure and increase the potential upsides.

Furthermore, some underdogs find motivation in the defiance of the underdog expectation. Nurmohamed's (2020) study suggested that defying expectations and proving others wrong regarding their low expectations serves as a mediator between underdog status and performance. Similarly, Lount and colleagues (2017) found that underdog teams who were explicitly encouraged to defy the odds (i.e., winning) put in more effort. These contemporary studies (Lount et al., 2017; Nurmohamed, 2020; Steele & Lovelace, 2021) each note that any positive implications of underdog status are contingent on credibility. Thus, underdog status carries some degree of objectivity. The underdog theory of entrepreneurship (Miller & Le Breton-Miller, 2017) places objective individual attributes, to which we now turn our attention, front and center.

### 2.1. Underdog entrepreneurs

Entrepreneurs emerge from diverse socioeconomic, demographic, and geographic backgrounds (Welter et al., 2017). As calls grow for a more inclusive study of the entrepreneur (Bakker & McMullen, 2023), the underdog theory of entrepreneurship (Miller & Le Breton-Miller, 2017) represents a rapidly growing framework that encapsulates a variety of entrepreneurs who have thus far remained understudied in the literature. Miller & Le Breton-Miller (2017) conceptualize the underdog entrepreneur as one who is facing socioeconomic, cognitive, and/or health challenges leading to adverse conditions. Most underdogs have faced adversity throughout their entire lives, which can be advantageous.

First, action is at the heart of the entrepreneurial journey (McMullen & Shepherd, 2006; Wood, Bakker, & Fisher, 2021). Miller and Le Breton-Miller (2017) posit that new venture creation requires adaptive solutions to complex challenges and that adaptation is a characteristic that is second nature to underdogs. As such, underdogs tend to have a greater propensity to take entrepreneurial action and start new ventures. For example, Hayward and colleagues (2022) found that disruptions in education, which limit an individual's human capital and subsequent job opportunities, are associated with higher levels of entrepreneurship. Awaworyi Churchill and colleagues (2023) provide corroborating evidence for this phenomena and suggest that negative life events are associated with self-employment. Cheng et al. (2021) and Awaworyi Churchill et al. (2021), studying the Great Chinese Famine and the Vietnam War, respectively, found that this effect can begin in early childhood.

Next, entrepreneurship requires a high degree of resilience (Bullough & Renko, 2013). Underdog entrepreneurs might have an advantage in this regard, as they have had to continuously adapt to overcome their own challenges (Miller & Le Breton-Miller, 2017). For example, Yu and colleagues (2022) found that childhood adversities led to greater resilience, which in turn led to entrepreneurial success. Although the relationship between underdog attributes and resiliency was not directly tested in their study, Santoro et al. (2020) found that resilience offers a positive moderating effect on entrepreneurial success.

Last, Miller and Le Breton-Miller (2017) suggest that the challenges faced by underdog entrepreneurs influence their perceptions of risk. In other words, underdogs might be more likely to be risk-seeking rather than risk-averse, as they perceive business risks as benign in comparison to life challenges (e.g., Haynie & Shepherd, 2011). For example, Baron et al. (2018) found that underdog entrepreneurs were more likely to resort to bribes to overcome their social disadvantages. While bribes might be an effective strategy for the underdog entrepreneur, the

legalities of such an approach are highly risky. If underdog entrepreneurs are risk-seeking, it is likely to be evident in their growth aspirations. We next provide a brief overview of entrepreneurial growth aspirations and address the reasons that they form an integral part of the entrepreneurial journey.

### 3. Entrepreneurial growth aspirations

While the antecedents of firm growth are wide-ranging (Bort et al., 2021; McKelvie & Wiklund, 2010), entrepreneurs' growth aspirations are among the most critical (Delmar & Wiklund, 2008; Estrin, Korosteleva, & Mickiewicz, 2020). Entrepreneurial growth aspirations refer to the intended size of the entrepreneur's firm after a specified allotted amount of time (e.g., Estrin, Korosteleva, & Mickiewicz, 2013) and are often inextricably linked to growth intentions and/or expectations (Hermans et al., 2015)<sup>1</sup>.

Entrepreneurs seldom approach growth by happenstance. Entrepreneurial growth aspirations are typically understood to be a planned behavior (Wiklund & Shepherd, 2003) and to be heterogeneous among entrepreneurs (Wiklund et al., 2003). In their comprehensive review of the growth aspirations literature, Hermans et al. (2015) highlight three antecedents to growth aspirations – the economic environment, the entrepreneur's personal attributes, and the state of their firm. Notably, the underdog theory of entrepreneurship focuses on personal attributes. However, the implications of these attributes stem from the economic environment. Thus, economic and personal attributes are most relevant to this inquiry. For example, Estrin and colleagues (2013) assessed growth aspirations across different levels of institutional corruption and property rights protections. Baron et al. (2018) found that underdog entrepreneurs were more likely to exploit a corrupt environment and leverage bribes. Edelman et al. (2010) focused their attention on personal attributes, finding certain differences in the growth aspirations of minority entrepreneurs.

Entrepreneurial growth aspirations are also driven by the entrepreneur's level of risk tolerance (Wennberg et al., 2016), which is also a culmination of their economic environment (Estrin et al., 2017) and personal attributes (Douglas, 2013). Miller and Le Breton-Miller's (2017) framework suggests that underdog entrepreneurs are less risk-averse. If this is the case, then it should follow that underdog attributes influence growth aspirations. We next develop our hypotheses and explain why underdog attributes influence growth aspirations.

### 4. The growth aspirations of underdog entrepreneurs

Miller and Le Breton-Miller (2017) posit that underdog entrepreneurs might be less averse to risk than traditional entrepreneurs and point out that systemic adversity changes one's perceptions of what constitutes risk. Prospect theory (Kahneman & Tversky, 1979) offers a compelling explanation for why this might be the case. The core premise of the theory is that an individual's risk-seeking or risk-averting behavior is driven by a reference point.

For example, Wennberg and colleagues (2010) used prospect theory to explain why those novice entrepreneurs who achieve success are more likely to exit their venture. In short, their study suggests that novice entrepreneurs adopt a loss avoidance strategy to protect the gains they have accumulated. Hsu, Wiklund, and Cotton (2017) leverage the prospect theory model to analyze the reentry intentions of

entrepreneurs. Using an experimental approach, they find that previous venture success reduces reentry intentions, as entrepreneurs are less interested in taking the risks associated with launching a firm again. Thus, successful exits have the potential to inhibit entrepreneurs from attempting another highly uncertain venture. To a similar effect, Estrin, Mickiewicz, and Rebmann (2017) take an institutional perspective and test how bankruptcy laws influence aspirations. They theorize that harsher bankruptcy laws inhibit the aspirations of entrepreneurs, as they place greater weight on potential losses than on potential gains.

Given the adversities that underdog entrepreneurs face from early childhood (Awaworyi Churchill et al., 2021; Hayward et al., 2022; Yu et al., 2022), underdog entrepreneurs might perceive that they have less to lose when they formulate their growth aspirations. Growing a venture has many positive outcomes that outweigh the risks if successful achieved. Entrepreneurship is noted for nonlinear outcomes (Crawford et al., 2015), and growth in particular offers nearly limitless potential regarding wealth accumulation (Bort, Yu, & Wiklund, 2021). Many underdog entrepreneurs have broken their cycles of hardship by scaling their ventures. Indeed, these stories form the inspiration for many of the iconic underdog 'rags to riches' stories found in entrepreneurship (e.g., Oprah Winfrey; Cloud, 1996).

Those studies that have viewed entrepreneurial decision-making through the lens of prospect theory find consistency with its core premise: entrepreneurs frame their situations in terms of gains and losses and approach risk accordingly (Estrin et al., 2017; Hsu et al., 2017; Wennberg et al., 2010). In sum, the adversities that come with being an underdog entrepreneur are likely positive factors for entrepreneurial growth aspirations. Thus, we first hypothesize the following:

**Hypothesis 1.** *The underdog attributes of an entrepreneur are associated with higher entrepreneurial growth aspirations.*

#### 4.1. Underdog attributes and business income

Underdog attributes are associated with a variety of difficulties and tend to make regular employment untenable. For example, Shepherd and Patzelt (2015) suggest that health-related restrictions might inspire entrepreneurial action when individuals face a lack of accommodations. Self-employed individuals have much more flexibility in how they design their jobs, allowing them the unique opportunity to overcome their specific adversities. Wiklund and colleagues (2018) note a similar effect regarding neurodiversity, where conditions such as attention-deficit/hyperactivity disorder (ADHD) can make regular employment challenging, and ADHD can rather serve as an advantage in entrepreneurship.

Furthermore, while some underdogs choose entrepreneurship because of forces that reduce their regular employment options, e.g., necessity entrepreneurship (Block, Kohn, Miller, & Ullrich, 2015), others experience a 'glass ceiling' in regular employment that limits their career growth (Cotter et al., 2001). Thus, once an underdog becomes an entrepreneur, as many do (e.g., Cheng et al., 2021), they are likely to draw greater income from their ventures. For example, Yu and colleagues (2022) measured the income brackets of underdog entrepreneurs as a proxy for career success, finding that childhood adversity was associated with greater success. This leads to our second hypothesis:

**Hypothesis 2.** *The underdog attributes of an entrepreneur are associated with higher business income.*

#### 4.2. Underdog Attributes, business Income, and growth aspirations

Taken together, our first and second hypotheses suggest another interesting question – does success provide a boundary condition for an underdog entrepreneur's growth aspirations? On the one hand, such underdogs might be impervious to personal changes and remain steadfast in their growth aspirations regardless of their success. On the other

<sup>1</sup> Hermans and colleagues (2015) called attention to the challenges in disentangling growth aspirations, intentions, and expectations, as the question is often ambiguous to practicing entrepreneurs who serve as research subjects. Ramoglou and McMullen (2022) noted a similar issue when building on Wittgensteinian philosophy and illustrated the academic/practitioner disconnect when using the phrase 'entrepreneurial opportunities.' For our purposes, we simply refer to the construct as 'growth aspirations.'

hand, as their income increases, they might temper their growth aspirations as a means of preserving the wealth that they have thus far accumulated.

Previous studies leveraging prospect theory in the entrepreneurial context have found a negative correlation between entrepreneurial success and risk-seeking behavior (Hsu et al., 2017). For example, Wennberg and colleagues (2010) viewed entrepreneurial exit through the lens of prospect theory, testing how the financial health of the firm and the reference point of the entrepreneur shape the exit route (e.g., harvest/distress or sale/liquidation). Interestingly, they find that novice entrepreneurs who find success are more likely to exit early, suggesting that they adopt a loss avoidance strategy to protect the gains they have accumulated. This stands in contrast to a more rational utility maximization perspective, where the entrepreneur would make such a decision based on the best yield in selling their firm. To a similar effect, Estrin et al. (2017) take an institutional perspective and test how bankruptcy laws influence aspirations. They theorize that harsher bankruptcy laws inhibit the aspirations of entrepreneurs, as they place greater weight on potential losses rather than potential gains. Given that growth is inherently risky and could even jeopardize firm survival if not managed properly (Pe'er, Vertinsky, & Keil, 2016), insights from prospect theory suggest that the entrepreneur's success tends to lower growth aspirations. Thus, our concluding hypothesis is as follows:

**Hypothesis 3.** *Higher business income negatively moderates the association between the underdog attributes of the entrepreneur and their growth aspirations.*

## 5. Methods

### 5.1. Context

To test our hypotheses, we focus on a set of entrepreneurs seeking loans from Ascendus. Ascendus is a nonprofit organization founded in 1994, headquartered in New York City, with regional offices in New England and Florida. The firm specializes in loans for high-risk entrepreneurs who would have trouble obtaining funding through traditional banks. Ascendus has professional loan officers who engage and consult with entrepreneurs seeking financing from the organization.

Ascendus is a suitable context for two reasons. First, Ascendus serves a diverse population that includes underdog entrepreneurs. As described below, these entrepreneurs represent a variety of underdog attributes, which allows for a novel methodological approach that can be leveraged to assess underdog attributes as a continuum of potential hardships. Next, the loan process offers an objective assessment of entrepreneurial growth aspirations, as the question of employment growth is embedded in the loan questionnaire.

### 5.2. Data

Our dataset consists of 3,246 loan applications filed by entrepreneurs from 2018 to 2022. The median loan size in our sample is \$12,670 USD and ranges from \$187 USD to just over \$250,000 USD. The loans are managed by 31 officers; the size of the smallest portfolio was 2 and the largest was 431. A total of 230 loans were refinanced. Given the mission of Ascendus, the lending portfolio includes entrepreneurs who exhibit a variety of underdog attributes that are relevant to our inquiry, including critical demographic details and financial information concerning the ventures. Ascendus has no explicit preference regarding the industry that the entrepreneur seeks to operate within; 14 unique industries are represented in our sample.

### 5.3. Measures

**Dependent Variables.** Our study relies on two dependent variables. We first measure *growth aspirations*. The loan application asks the

entrepreneur "How many employees do you plan to hire in the next 12 months," which is a common metric in the growth aspirations literature (Hermans et al., 2015). Given the different sizes of the ventures, we calculate growth aspirations as a percentage. More specifically, we calculate growth aspirations as the percentage of employees that the firm plans to add divided by the number of those currently employed (inclusive of the entrepreneur). Thus, a firm with 10 employees looking to hire 10 more would represent a growth aspiration of 100%.

Next, we leverage the entrepreneur's *Business Income* as our second dependent variable and moderator. The loan application asks for the entrepreneur's monthly draw from the business; similar variables have been used in the underdog entrepreneurship literature to measure success (see, e.g., Yu et al., 2022). Given the skewness of these variables and their effects on modeling, we log transform each variable (Becker, Robertson, & Vandenberg, 2019).

**Independent Variables.** Bakker and McMullen (2023) call attention to the need for more inclusive entrepreneurship theories. Thus, we conceptualize *underdog attributes* as an objective variable similar to that in Baron et al., 2018. However, we leverage a more expansive set of conditions derived from the sociology and entrepreneurship literature that are known to induce adversities.

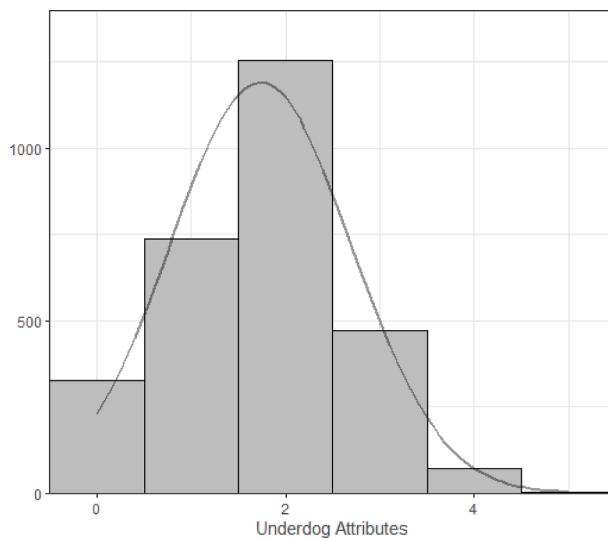
We do not claim that our measure is all-inclusive, and we revisit this in our limitations. However, we note several advantages to this approach. First, we drew inspiration from the concepts found in cumulative disadvantage (Schafer et al., 2011), where adversities have an additive effect. The use of a continuous variable has the potential to better represent what it means to be an underdog. Logically speaking, being an immigrant *and* having a disability might pose a distinct set of challenges in comparison to solely being an immigrant. Table 1 outlines the underdog attributes, supporting literature, and frequency in our sample. In total, there are five underdog attributes captured in this measure. The average entrepreneur in our sample exhibited two underdog attributes. A total of 330 entrepreneurs exhibited no underdog attributes, while four entrepreneurs exhibited all five attributes. Fig. 1 displays the distribution of underdog attributes. Individual regressions of each underdog trait are also provided in the supplemental appendix, S.1.

**Control Variables.** At the individual level, we include variables capturing the entrepreneur's *age*, *marital status*, and *household size*. Scholars note the relevance of age to entrepreneurship (Kautonen, Kibler, & Minniti, 2017), as well that of family capital (Dyer, Nenque, & Hill, 2014). Recall that our underdog attributes variable captures individual traits as well (e.g., ethnicity, disability, gender) and are not included as control variables.

At the firm level, we include the *firm age*, *number of employees*, *physical space*, and fixed effects for *industry*. Firms that have employees might be better positioned to grow (Coad, Nielsen, & Timmermans, 2017), while physical space is likely to be an additional recurring financial burden, which is also relevant to growth motives. At the loan level, we account for *application type* (new or refinance), *year of loan*, and a dichotomous variable that flags whether the loan application was filed within one year of the start of the COVID-19 pandemic (March 1, 2020, to February 28, 2021). As detailed below, the variation associated

**Table 1**  
Underdog Attributes.

Characteristic	General Reference	Relevance to Entrepreneurship	Frequency
Gender	McCord et al. (2018)	Yang & Aldrich (2014)	1,107
Ethnic Minority	Hernandez et al. (2019)	Lyons & Zhang (2017)	59
Disability	Biederman et al. (2006)	Shepherd & Patzelt (2015)	2,164
Poverty	Hertel & Groh-Samberg (2019)	Sutter et al. (2019)	244
Immigrant	Menjívar, (2006)	Lee & Eesley (2018)	1,391



**Fig. 1.** Underdog Attribute Distribution.

with the portfolio *loan officer* is captured via multilevel modeling.

## 6. Analysis and results

Given the nested nature of the data – comprising sets of loans within the officer's loan portfolio – we employ multilevel models (MLM; Bliese, Malтарич, & Hendricks, 2018). More specifically, we employ a two-level model where the loan data are nested within a specific loan officer. Although simulation studies (e.g., Bliese et al., 2018) suggest that there is no downside to the use of MLMs regardless of the size of the intraclass correlation coefficient (ICC), we tested the ICC levels for robustness regarding our primary dependent variable, *growth aspirations*. The ICC for loan officers was 0.26, suggesting that MLM is appropriate. Table 2 provides correlations and summary statistics. Several notable relationships are present in the correlation tables. First, as the number of underdog attributes increased, so did the age of the entrepreneur. Relatedly, the higher the range of underdog attributes, the older the firm. Finally, underdog attributes were correlated with larger

households.

**Table 3** displays our models. Model 1 contains control variables only. Model 2 tests our first hypothesis, which suggests that underdog attributes are positively associated with growth aspirations. We find that underdog attributes have a positive association with growth aspirations ( $\beta = 0.177$ ;  $p < 0.001$ ), suggesting that for every underdog attribute present, growth aspirations increase by approximately 19%. Next, we hypothesized that underdog attributes are associated with higher business incomes. Model 3 shows support for this hypothesis ( $\beta = 0.181$ ;  $p < 0.001$ ). This model suggests an effect size of \$44 per underdog attribute. Last, we claimed that as business incomes increase, the association between the entrepreneur's underdog attributes and growth aspirations decreases. Fig. 2 provides a visualization of this interaction, and Model 4 illustrates the support for this hypothesis ( $\beta = -0.07$ ;  $p < 0.001$ ).

### 6.1. Robustness

It can be difficult for entrepreneurs to assess their ideal firm size, which creates further challenges in measuring growth aspirations (e.g., Hermans et al., 2015). Therefore, we created a binary version of our dependent variable to mitigate this concern; this variable was set as 1 if the growth aspiration was above zero and as 0 otherwise. Dichotomizing variables results in a loss of statistical power and accuracy in favor of simplicity. This operationalization equalizes growth aspirations into a yes or no, which could mitigate possible errors on the part of the entrepreneur should they aim too low or high. In other words, this approach simply measures whether the entrepreneur wants to grow or not. For these analyses, we used generalized linear models and found consistent results. Full results are presented in our supplemental appendix (S.2).

## 7. Discussion

In this study, we set out to assess the growth aspirations of underdog entrepreneurs. To do so, we built on insights generated from the underdog theory of entrepreneurship (Miller & Le Breton-Miller, 2017), entrepreneurial growth aspirations (Hermans et al., 2015), and prospect theory (Kahneman & Tversky, 1979). We found that as the number of underdog attributes increased, so did the level of entrepreneurial growth aspirations. This provides further evidence for Miller and Le Breton-

**Table 2**  
Correlation Matrix.

	Mean	SD	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1. Growth Aspirations	1.62	2.13														
2. Underdog Attributes	1.85	0.99	0.07													
3. Business Income	6.98	2.21	0.15	0.14												
4. Loan Amount	9.30	0.83	0.03	-0.21	0.04											
5. Employees	2.13	2.65	0.20	-0.07	-0.02	0.20										
6. Physical Space	0.12	0.33	0.33	-0.02	0.09	0.08	0.23									
7. Firm Age	4.30	2.26	-0.16	0.06	0.05	0.08	-0.05	-0.11								
8. Application (New)	0.90	0.30	-0.24	0.00	0.01	-0.04	-0.05	0.02	-0.08							
9. COVID	0.23	0.42	0.01	0.07	0.11	-0.20	-0.06	-0.04	0.08	0.01						
10. Loan Year	2020	1.20	-0.52	0.04	0.26	0.07	-0.24	-0.24	0.23	0.18	0.09					
11. Full-time Entrepreneur	0.90	0.30	-0.38	0.01	-0.04	0.03	-0.09	-0.12	0.15	0.11	0.01	0.27				
12. Founder's Age	46.45	11.01	0.02	0.05	0.00	-0.01	0.05	0.02	0.17	-0.04	0.03	-0.07	0.03			
13. Marital Status (Married)	0.05	0.21	0.14	-0.01	-0.04	0.02	0.03	-0.04	0.06	-0.32	-0.01	-0.18	-0.07	0.10		
14. Marital Status (Single)	0.03	0.18	0.11	-0.03	-0.05	0.01	0.03	0.01	0.09	-0.30	-0.02	-0.16	-0.04	0.02	-0.04	
15. Household Size	2.54	1.62	0.04	0.19	0.17	-0.09	0.00	0.03	0.02	0.07	0.13	0.03	-0.02	-0.02	0.03	-0.08

All values above 0.04 are significant to  $p < 0.05$ .

**Table 3**  
MLM Regression Models.

	Dependent variable:			
	Growth Aspirations		Business Income	Growth Aspirations
	(1)	(2)		
Constant	1.341*	0.912	2.029**	0.261
(0.555)	(0.556)	(0.751)	(0.566)	
H1: Underdog Attributes		0.177***	0.181***	0.674***
		(0.028)	(0.038)	(0.093)
H2: Business Income	0.186***	0.179***		0.284***
	(0.013)	(0.013)		(0.023)
H3: Underdog Attributes				-0.070***
* Business Income				(0.013)
Employees	0.00002	0.002	0.035*	0.003
	(0.010)	(0.010)	(0.014)	(0.010)
Physical Space	0.732***	0.717***	0.799***	0.704***
	(0.085)	(0.084)	(0.114)	(0.084)
Firm Age	-0.022+	-0.023+	-0.025	-0.023+
	(0.012)	(0.012)	(0.016)	(0.012)
Application Type (New)	-0.754***	-0.744***	-0.476***	-0.740***
	(0.099)	(0.099)	(0.133)	(0.098)
Loan Amount	0.066*	0.102**	0.189***	0.102**
	(0.033)	(0.033)	(0.045)	(0.033)
COVID	0.171+	0.183+	0.011	0.197*
	(0.095)	(0.095)	(0.129)	(0.095)
Full-time Entrepreneur	-1.283***	-1.276***	-0.577***	-1.266***
	(0.089)	(0.089)	(0.120)	(0.088)
Founder's Age	0.0002	-0.001	0.005	-0.0004
	(0.002)	(0.002)	(0.003)	(0.002)
Marital Status (Married)	0.195	0.197	0.037	0.222+
	(0.131)	(0.131)	(0.178)	(0.130)
Marital Status (Single)	-0.021	-0.010	-0.119	0.008
	(0.152)	(0.151)	(0.206)	(0.150)
Household Size	0.060***	0.047**	0.146***	0.044**
	(0.017)	(0.017)	(0.023)	(0.017)
Loan Year	YES	YES	YES	YES
Industry	YES	YES	YES	YES
Observations	3,246	3,246	3,246	3,246
Log Likelihood	-5,787.472	-5,770.158	-6,762.033	-5,758.095
Pseudo R <sup>2</sup>	0.496	0.503	0.245	0.507
Note:	+ p < 0.1; * p < 0.05; ** p < 0.01; *** p < 0.001			

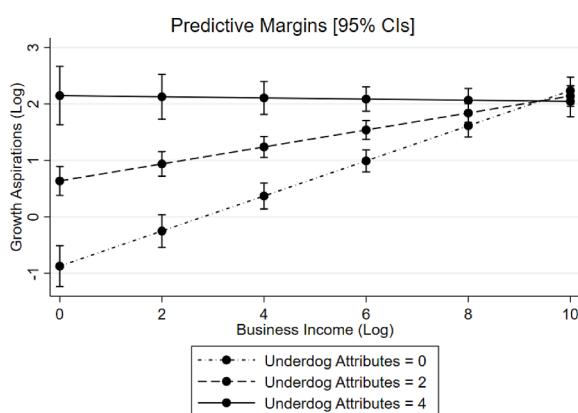


Fig. 2. Interaction Plot: Underdog Attributes × Business Income.

Miller's (2017) notion that underdog entrepreneurs are less risk-averse. However, in accordance with the prospect theory of entrepreneurship (Wennberg et al., 2010), we also found that as business incomes increase, this relationship softened, setting an important boundary condition.

We measured the underdog attributes of the entrepreneur as a continuous measure of adversity, as previous research has acknowledged the accumulative effect of adversity (Schafer et al., 2011). As noted in our results, the effect sizes in our models carry not only statistical significance but also economic significance. Given the importance of firm growth in entrepreneurship, we next outline the theoretical implications of this study.

### 7.1. Theoretical implications

The underdog theory of entrepreneurship suggests that underdog entrepreneurs are risk-seeking rather than risk-averse (Miller & Le Breton-Miller, 2017). To date, empirical evidence converges on the notion that underdogs are more likely to pursue entrepreneurship (Awaworyi Churchill et al., 2021; Cheng et al., 2021; Hayward et al., 2022). There is also evidence that underdog entrepreneurs are more resilient (Santoro et al., 2020; Yu et al., 2022) and adaptive (Baron et al., 2018) than other types of entrepreneurs. Given that growing a firm is a risky proposition, the open question of whether underdog entrepreneurs have higher growth aspirations is intriguing.

While our study offers further evidence to support the general thesis that underdog entrepreneurs are comfortable with risk, such an assessment of growth aspirations can be more complex. On the one hand, growing a venture can become an existential threat if it is not handled properly (Pe'er et al., 2016). On the other hand, firm growth is an engine for legitimizing a venture, creating jobs, and accumulating wealth (Bort et al., 2021). Furthermore, there is some evidence that entrepreneurs' growth aspirations vary widely (McKelvie et al., 2021; Wiklund et al., 2003). Critically, growth aspirations are a predictor for actual firm growth (Delmar & Wiklund, 2008) and thus are an important step in the chain breakoff potentially breaking through the cycles of adversity. This research takes a first step in uncovering the growth trajectories of firms founded by underdog entrepreneurs.

Notably, knowledge accumulation regarding growth more generally (De Santola & Gulati, 2017) and growth motives specifically (Murnieks et al., 2020) has been slower than other entrepreneurial outcomes. Along these lines, the underdog theory of entrepreneurship offers novel insights into the growth literature. Anecdotally, there are many underdogs who have found the path from 'rags to riches' through entrepreneurship (e.g., Oprah Winfrey, Richard Branson, Howard Schultz). Firm growth, like many other outcomes in entrepreneurship (Crawford et al., 2015), tends to follow an outlier distribution. However, the antecedents to high-growth entrepreneurship remain elusive (Coad et al., 2015). Thus, our findings reveal another piece of this puzzle. In his high school yearbook, fashion icon and son of impoverished immigrants Ralph Lauren famously stated 'millionaire' as his future goal (McDowell, 2023). Underdog attributes are likely a key factor that drive growth aspirations, which then drive firm growth.

### 7.2. Implications for diversity and practice

This study presents several implications for diversity and practice, focusing on entrepreneurs, micro financiers, and policy-makers. First, both entrepreneurs and their stakeholders stand to benefit from the positive outcomes of firm growth (Bort, Stephan, & Wiklund, 2021). Next, growth is an important path to wealth creation (Bort, et al., 2021) and job creation (Shane, 2009). Firms that grow tend to have the most substantial economic impact and, as such, are a key area of interest (Coad et al., 2014).

As such, underdogs who aspire to grow their enterprises tend to diversify the population of successful businesses. Diversity in

entrepreneurship has long been noted as an issue, with sex, ethnicity, and disability taking center stage (Blanchard, Zhao, & Ying, 2008; Brush et al., 2018; Lerner, 2016). Underdogs represent numerous adversities, and as such, underdog entrepreneurs not only serve as inspiration for similar aspirants but also bring a unique perspective to bear as they engage with and solve problems alongside their stakeholders.

### 7.3. Limitations and future research

The results of this study should be interpreted in consideration of their limitations. First, as previously noted, our measure of underdog attributes is not all-inclusive. For example, while our data captures ‘disability,’ it does not specify whether such disability is a symptom of physical attributes, cognitive attributes, or a combination of both. As such, there is a degree of lost fidelity to the findings. Future research could remedy this by assessing these differences more directly. Doing so would contribute to the underdog theory of entrepreneurship and provide a new lens to view the growing neurodiversity literature in entrepreneurship.

Next, our data offer a limited view of the entrepreneur’s human capital. The age of the business and the age of the entrepreneur provide a high-level proxy of entrepreneurial experience, but capturing specific insights such as the number of ventures an entrepreneur has started or the relevant job experience of the entrepreneur would strengthen inferences, as growth aspirations are in part driven by the abilities of the entrepreneur (Wiklund & Shepherd, 2003). Furthermore, there are likely to be psychological factors acting as important mediators. For example, the possibility that defiance or spite drives growth aspirations for underdog entrepreneurs could provide interesting insights (Nurmohamed, 2020).

Last, our data are USA-centric. Given the variety of adversities and the institutional environments where underdog entrepreneurs might operate their businesses, future research on growth aspirations might benefit from conducting cross-country comparisons to confirm whether the results hold or if the institutional environment provides additional theoretical boundaries.

## 8. Conclusion

In this study, we advance the underdog theory of entrepreneurship by focusing on growth aspirations. Growth aspirations are a key antecedent to actual firm growth, highlighting an important sequential step in the growth process. Given the foundational role of firm growth in entrepreneurship, this work has wide-ranging implications. Firm growth can break the cycle of adversity, positively impact other stakeholders, and diversify the business landscape.

### CRediT authorship contribution statement

**James Bort:** Conceptualization, Writing – original draft, Writing – review & editing, Formal analysis, Methodology. **Henrik Totterman:** Writing – review & editing, Writing – original draft, Data curation, Conceptualization.

### Declaration of Competing Interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

### Appendix A. Supplementary data

Supplementary data to this article can be found online at <https://doi.org/10.1016/j.jbusres.2023.114055>.

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