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Entrepreneurial Capability Versus Entrepreneurial Propensity: Why Take the Non-Actors Even More Seriously?

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Abstract: Scholars have moved beyond the view that entrepreneurs are born as entrepreneurs (Gartner, 1988) and the antecedents of entrepreneurial propensity and capability have been broadly researched. Still policymakers are seeking measures (European-Commission, 2013) to develop more entrepreneurs with ambitious, high-growth potential, aiming beyond the mere creation of more entrepreneurs. If not enough suitable candidates respond to this call, then one can wonder why this is the case. It's interesting to note that a group of potential entrepreneurs is possibly being overlooked. As Ramoglou (2011) argued, individuals who possess entrepreneurial abilities might decide not to engage in entrepreneurial behavior even if opportunities and a favorable environment are present. The literature, however, does not provide quantitative data to assess whether passivity of the capable non-actor can be considered to be an exception or not. As a first step to address this issue, this article reviews previous research on the antecedents of entrepreneurial propensity and capability and outlines the number of factors that have similar effects on these both constructs in comparison to the number of factors that have opposite effects on entrepreneurial propensity and capability. We have found a disproportional number of factors that have opposite effects on both constructs. We conclude that an individual who has entrepreneurial capabilities should not be expected to automatically aspire to a career as a founder of a new organization. This is a paradoxical conclusion for some, as they see initiative-taking capacity as an important antecedent of entrepreneurial capability. Our conclusion suggests that this unexploited source of entrepreneurial capability is more sizeable than expected and therefore continued research on the factors that govern the entrepreneurial propensity of entrepreneurially capable individuals is recommended. We close by calling for research to expand existing models on entrepreneurial career transitions in order to explain this paradox.

Keywords: Entrepreneurial capability, Entrepreneurial propensity, Entrepreneurial career transitions.

1. Introduction

"Reigniting the entrepreneurial spirit in Europe" and "Our challenge – More entrepreneurs for Europe" are the title and subtitle of the European Commission's Entrepreneurship 2020 Action Plan (European-Commission, 2013). Striving for more entrepreneurs aligns with entrepreneurial propensity, a first dimension we define in this study as how close an individual is to becoming an active entrepreneur. Qualitatively this dimension ranges from being non-interested, to having different levels of favorable orientations, dispositions, attitudes and desires, and to intending and displaying the actual entrepreneurial behavior. Quantitatively this can be operationalized by the probability that one will become active as an entrepreneur in the coming 5 or 10 years (Kennedy, Drennan, Renfrow, & Watson, 2003).

Together with the call for more entrepreneurs consensus is growing that actions promoting entrepreneurial activity should aim beyond the mere creation of more entrepreneurs (Blanchflower, 2004; Burke, FitzRoy, & Nolan, 2000; Shane, 2009; van Praag & van Stel, 2013). Shane (2009) stresses the need for focusing on start-ups with high growth potential. He recommends that policy makers focus support at fewer but better start-ups, aiming for high entrepreneurial venture performance. However, venture performance is undefined before the venture is founded and certainly, before the entrepreneurial opportunity is identified. As the call for more entrepreneurs addresses individuals before they have started as an entrepreneur, we define entrepreneurial capability as the subset of entrepreneurial performance that is fully attributable to the individual even in the absence of any entrepreneurial opportunity, propensity or activity. Therefore, if one pursues more high performance entrepreneurship, it seems reasonable to call for the activation of non-entrepreneurs who are positioned high on the entrepreneurial capability dimension. Baum, Locke, and Smith (2001) report on the capabilities of ventures' CEOs as direct and indirect predictors of venture growth.

If not enough suitable candidates respond to this call to found a new business, then one can wonder why this is the case. The literature, however, does not provide quantitative data to assess whether passivity of the capable non-actor can be considered to be an exception or not. As a first step to address this issue, this article

reviews previous research on the antecedents of entrepreneurial propensity and capability and investigates which antecedents have similar effects on both constructs and which antecedents have opposite effects on both constructs.

2. Methodology

In order to determine the most researched antecedents related to entrepreneurial capability and propensity, we searched for literature review papers on entrepreneurship research in the Web of Science and the Business Source Premier databases (July 2015). We identified the 4 meta-analytic reviews that provide the longest lists with researched items related to entrepreneurial capability and propensity (Jain & Ali, 2013; Jain, 2011; Rauch & Frese, 2007; Unger, Rauch, Frese, & Rosenbusch, 2011). These four papers report on 41, 18, 51 and 42 items respectively. We used the longest list by Rauch and Frese (2007) with 51 personality antecedents as a starting point and then we added experience and education from the review of Unger et al. (2011). This meta-analytic review of human capital and entrepreneurial success shows that education and experience subjects are the most frequently researched items (20 out of 42 items). Finally, we cross-checked with the lists published by Jain and Ali (2013) and Jain (2011) and we added social networking, social intelligence, family background, venture teaming, ability to raise financial capital and utility. Utility covers the needs for money/wealth, social security, recognition and respect. We also combined 6 factors in other items as they are similar or antonyms (Table 1: items 3, 7, 8). We disregarded factors that are not attributable to the individual, like legislation, infrastructure and environmental dynamism. All this resulted in the 53 items in Table 1. In March 2018 we carried out a topic search in the Web of Science database with these 53 items as keywords, each in combination with the search term “entrepren*”. In the third column of Table 1 we recorded how many documents were returned by the Web of Science database. Figure 1 shows a scree plot of the number of documents obtained per item.

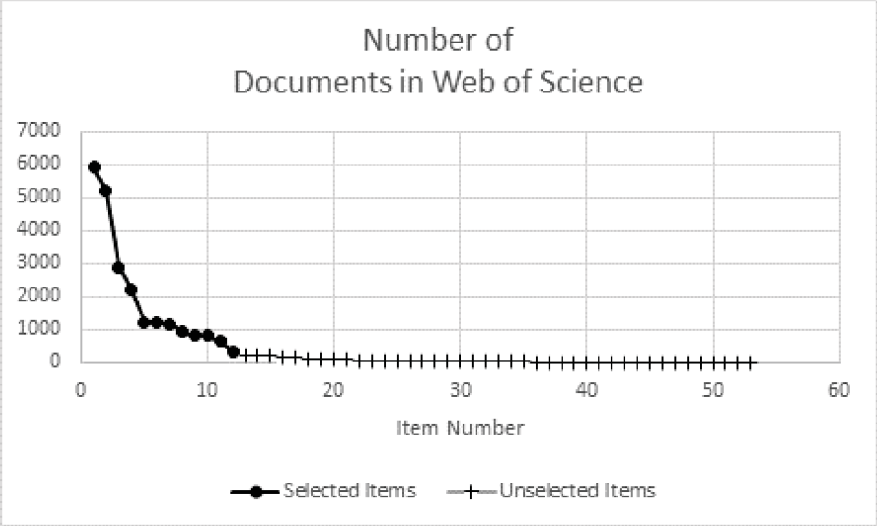

Figure 1: Scree plot of number of documents in Web of Science per antecedent.

As of item 13 the number of documents returned was less than 5% of the number of documents which were returned by the first item. Therefore we selected the first 12 items for further investigation in this study as they cover more than 92% of the returned documents.

Table 1 : Number of documents in Web of Science per antecedent
(1) from (Rauch & Frese, 2007), (2) from (Unger et al., 2011),
(3) from (Jain & Ali, 2013), (4) from (Jain, 2011)

Item Factor Antecedent Nr.	Keywords used combined with "entrepren*" in a topic search in Web of Science (WOS)	Number of documents in WOS (March 2018)	Item Factor Antecedent Nr.	Keywords used combined with "entrepren*" in a topic search in Web of Science (WOS)	Number of documents in WOS (March 2018)
1	Education (2)(3)	5924	28	Extraversion (1)(3)(4)	41
2	Experience (2)(3)	5190	29	Conservatism (1)	34
3	Innovativeness (1)(3)(4) or Originality (1)	2890	30	Goal orientation (1)	28
4	Dominance or Power (need for ... (1))	2183	31	Trustworthy (1)	27
5	Team (venture teaming (3))	1235	32	Neuroticism (1)	24
6	Creativity (1)(4)	1214	33	Endurance (1)	21
7	Self-efficacy (1)(3)(4) and self-confidence/overconfidence and optimism/sceptisism	1162	34	Practicality (1)	19
8	Flexibility or Rigidity or Discipline (1)	946	35	Tenacity (1)	19
9	Independence or Autonomy (need for .. (1) (4))	821	36	Benevolence (1)	15
10	Risk-taking (1)(3)(4)	818	37	Future orientation (1)	14
11	Achievement (need for ... (1)(3)(4))	635	38	Emotional stability (1)	12
12	Utility (need for money/wealth, social security, recognition and respect (4))	331	39	Gratification (delay of (1))	10
13	Ambiguity (tolerance for ... (1)(3)(4)	228	40	Humility (1)	9
14	Openness (to experience (1))	195	41	Expediency (1)	8
15	Passion (for work (1))	192	42	Social intellgence (4)	8
16	Proactiveness (1)	180	43	Stress tolerance (1)	5
17	Finacial capital (abilityyto raise ... (3))	170	44	Type-A behaviour (1)	2
18	Locus of control (internal (1)(3)(4))	121	45	Dogmatism (1)	1
19	Affiliation (need for ... (1))	115	46	Impulsiveness (1)	1
20	Enthusiasm (1)	95	47	Sobriety (1)	0
21	Social networking (3)	92	48	Forthrightness (1)	0
22	Self-esteem(1)	69	49	Shyness (1)	0
23	Aggressiveness (1)	68	50	Tough-mindedness (1)	0
24	Conformity (1)	54	51	Protestant work ethic beliefs (1)	0
25	Self-reliance (1)	46	52	Higher order need strength (1)	0
26	Family background (3) (4)	44	53	Norm orientation (1)	0
27	Conscientiousness (1)	44			

Using these 12 antecedents, we reviewed previous research with specific attention for work that attributes opposite effects with respect to entrepreneurial propensity and entrepreneurial capability. When earlier research was identified as showing an opposite effect, we considered this factor as an antecedent with the potential to explain a paradoxical effect without making quantitative claims on the frequency or size of this effect.

3. Results

In the result section, we summarize the conclusions from our literature review and we infer for every antecedent whether we did or did not find potential for opposite effects.

3.1 Education

Plural literature review papers are available on the effects of education on entrepreneurial propensity and capability. Bae, Qian, Miao, and Fiet (2014) conclude that the research on entrepreneurship education in view of entrepreneurial intentions has yielded mixed results and after controlling for pre-education entrepreneurial intentions, the relationship between entrepreneurship education and post-education entrepreneurial intentions was not significant. Unger et al. (2011) present a meta-analytical review of human capital research in entrepreneurship. They found a small but significant relationship between human capital and success. They report that the relationship is stronger for the outcomes of human capital investments (knowledge / skill) than for the investments themselves (education / experience). Van Praag, Witteloostuijn, and Van der Sluis (2009, p. 2) express the results of their research on a US longitudinal sample with 66,000 person-year observations as follows:

> *"We show that education affects people's decisions to become an entrepreneur negatively. We show furthermore that entrepreneurs have higher returns to education than employees (in terms of the comparable performance measure 'income')".*

We deduce that education shows an opposite effect. Education can be a factor that works against entrepreneurial propensity, but it provides positive effects on entrepreneurial capability

3.2 Experience

According to the meta-analytic review of Unger et al. (2011), experience is an investment in human capital and shows a moderate but favorable effect (r = 0.07) on firm performance. Additionally, task related investments, like start/up, owner, industry specific and management experience, show a higher effect on firm performance (r= 0.11). This is in line with Chandler and Jansen (1992, p. 234), who conclude carefully: "Marginal evidence suggests that a business education and experience in general managerial positions may help to lay the groundwork for a successful entrepreneurial career". However, with respect to entrepreneurial propensity, Zouhar and Lukeš (2013, p. 12) report and explain an opposite effect of industry experience on the chances of starting an operational business: "People with higher industry experience may eventually start only businesses with a higher chance of success and disengage from efforts with low success probability". We conclude that experience can have an opposite effect on entrepreneurial propensity and capability.

3.3 Innovation, need for innovativeness

Frese and Gielnik (2014) show correlations between innovativeness and business creation effects and between innovativeness and business performance effects of respectively r = 0.24 and r = 0.27. Innovativeness is consistently described as an important entrepreneurial ability but also as a reason for starting a business (Jain, 2011). We conclude that innovativeness is an important antecedent for entrepreneurial capability as well as for entrepreneurial propensity. We have not found any research showing an opposite effect.

3.4 Dominance, need for power

Since McClelland (1975), the need for power (nPower), defined as the need to have control over others to influence their behavior, has consistently been seen as a motivator and as an antecedent for entrepreneurial intent (Oosterbeek, van Praag, & Ijsselstein, 2010; Ramsay, Pang, Ho, & Chan, 2017; Van Gelderen & Jansen, 2006). De Vries (1977) analyzes the entrepreneurial personality and covers the link between nPower and entrepreneurial performance. He concludes that optimal performance is to be expected when nPower is moderate (McClelland, 1975) as cited in (De Vries, 1977, p. 39): "High nPower … with ... lack of inhibition or self-control limits their effectiveness as large institution builders in spite of their success in inspiring people in the initial stage of growth of the organization". Van Gelderen and Jansen (2006) add that nPower as driver for autonomy is favorable for setting high growth objectives and performance, but also that nPower acts against delegation and empowerment of personnel. We conclude that high nPower has a favorable effect on entrepreneurial propensity but can have an opposite effect on entrepreneurial performance.

3.5 Entrepreneurial Teams

Ensley, Hmieleski, and Pearce (2006, p. 228) show empirical evidence that shared leadership outperforms vertical leadership of the lone founder CEO. This conclusion is based on the study of more than 200 startups in the USA:

> *"Within this context, the explanatory value of shared leadership goes above and beyond that of vertical leadership. This suggests that high profile cases of prodigal entrepreneurs, whose individual creativity and charisma have led them to fame and fortune, are more myth than reality. If nothing else, the leadership of the principal founder is only part of the story behind most successful startups. It takes the leadership of an array of talented individuals to develop and grow new ventures. This highlights the great importance in selecting and developing top management teams, rather than simply attracting a superstar CEO: It is time to move beyond the moribund myth of the heroic entrepreneur as the sole leader of the firm."*

Cooney (2005) in his editorial on entrepreneurial teams and Klotz, Hmieleski, Bradley, and Busenitz (2014) in their literature review, they agree that on average entrepreneurial teams outperform the lone entrepreneur. However, they also stress the complexity of forming the right team adequate for an entrepreneurial endeavor.

With respect to entrepreneurial propensity and the formation of a founding team Fadul Ramirez (2016, p. 2) concludes: "… that the Founding Team formation process is a highly complex, lengthy, dynamic, random and sequential one". This leaves us with the paradoxical conclusion that entrepreneurial teams perform better but start slower.

3.6 Creativity

In their book "Creativity and Entrepreneurial Performance" Mcmullan and Kenworthy (2016) conclude that creativity correlates positively with entrepreneurial intention, behavior and performance. They underline the robustness of their conclusions with more than 80 references to earlier research, which shows practical and statistical significance across different methods and measurements. Their creativity measures include innovativeness and openness to experience. We conclude that creativity is an important antecedent for entrepreneurial capability as well as for entrepreneurial propensity. We have not found any research showing an opposite effect.

3.7 Self-efficacy, self-confidence, over-confidence and optimism

In their meta-analytic findings Frese and Gielnik (2014) report the highest correlation r = 0.38 between self-efficacy and business creation. This aligns with a high level of convergence in the literature that self-efficacy and perceived behavioral control (Ajzen, 1991) are important antecedents explaining entrepreneurial intent (Boyd & Vozikis, 1994; Chen, Greene, & Crick, 1998; Rauch & Frese, 2007). Although self-efficacy is undoubtedly a strong predictor for entrepreneurial propensity, scholars address the issue that self-efficacy is not necessarily a guarantee of actual entrepreneurial capability. Bayon, Vaillant, and Lafuente (2015) measure perceived and actual entrepreneurial ability in a group of 26,388 respondents in Spain and they report a significant but low correlation of 0.12 between perceived and actual entrepreneurial ability. This illustrates the proposition made earlier by Chen et al. (1998, p. 298): "There may be many individuals who shun entrepreneurial activities not because they actually lack necessary skills but because they believe they do."

More specifically Koellinger, Minniti, and Schade (2007) researched self-confidence and over-confidence. They determine positive correlations $r > 0.50$ ($p<0.01$) between self-confidence and the percentage of established entrepreneurs. This confirms that self-efficacy is a strong predictor for entrepreneurial behavior across countries. However, Koellinger et al. (2007) find negative correlations $r < -0.25$ ($p<0.01$) between self-confidence and the ratio between established and nascent or new entrepreneurs. This ratio is used as a proxy for entrepreneurial performance and underlines that self-confidence can have opposite effects on entrepreneurial propensity and capability. In this respect we also highlight the research of Hmieleski and Baron (2009) on optimism and performance of the entrepreneur. Their study analyzes about 1,000 young firms in the USA and reports negative correlations between optimism of the entrepreneur and firm performance. We conclude that self-efficacy, optimism and self-confidence correlate positively with entrepreneurial propensity, but paradoxically, they are not a guarantee of entrepreneurial capability.

3.8 Flexibility, rigidity and discipline

Even if these key words return 554, 38 and 354 documents respectively from the Web of Science database (March 2018), the number of publications that relate to entrepreneurial propensity and capability is very limited. Various authors agree that the ability of the entrepreneur to adapt to changing conditions, has a positive effect on venture performance (Bingham, Furr, & Eisenhardt, 2014; Bird, 1988). However, we find arguments that this flexibility should go together with an optimal amount of structure, perseverance, rigidity and discipline and that the correlation between structure and performance has an inverse U-shape (Bradley & Cowdery, 2004; Crilly, 2018; Davis, Eisenhardt, & Bingham, 2009). In relation to opportunity selection, too much flexibility can lead to opportunistic entrepreneurial activity. This can be seen as a positive correlation with entrepreneurial propensity as high flexibility increases the chance that an individual will pursue an opportunity. Furthermore, Bingham et al. (2014) explain that more focus and rigidity at opportunity selection in combination with higher flexibility in the execution phase are expected to give the best results. They call this "The opportunity paradox".

3.9 Autonomy, independence

In their meta-analytic study Frese and Gielnik (2014) report a correlation of 0.31 between autonomy and business creation effects and according to Hessels, Van Gelderen, and Thurik (2008, p. 325) "Autonomy or independence is one of the most cited pull factors for starting a business." In their editorial Caliendo and Kritikos (2011) express that "A main driver of entrepreneurship is the need for autonomy". Over the years this

has consistently been supported by multiple authors (Blanchflower, 2004; Sexton & Bowman, 1986). However, there are less favorable conclusions about the link between the need for autonomy and entrepreneurial capability. Mcmullan and Kenworthy (2016, p. 120) explain how the need for independence can hinder the collaborative ability of an entrepreneur:

> *"Collaborative ability. Shane (2003 , p. 99) indirectly suggests that entrepreneurs tend to be disagreeable, difficult people: 'The evidence supports the proposition that people who are friendly, socially conforming, compliant, flexible, trusting, cooperative, forgiving, tolerant, softhearted and courteous are likely to be less entrepreneurial.' He (2003 , pp. 106–107) also indicates that a, '…desire for independence tends to be associated with the likelihood of self-employment.' Interestingly, '…people who have a greater desire for independence actually perform worse at entrepreneurial activities' (Shane 2003, p. 108). It would appear then, that successful entrepreneurs are rather prickly people who happen to know how to act interdependently. It appears that a strong spirit of independence is needed to launch a promising venture, but it may be potentially toxic once the venture is launched. These countervailing tendencies of the independent entrepreneurial personality might be labeled the independence paradox."*

Van Gelderen and Jansen (2006) also address paradoxical effects related to the autonomy motive depending on the underlying sources for the need for autonomy: resistance to bosses and rules; the need to set self-congruent goals; or the need for power and control. These underlying motives can be incongruent with firm growth. We conclude that the need for independence and autonomy is an antecedent that can have opposite effects on entrepreneurial propensity and capability.

3.10 Risk propensity

Risk tolerance is broadly reported as an antecedent for entrepreneurial propensity (Beugelsdijk & Noorderhaven, 2004; Hao, Seibert, & Lumpkin, 2009). The link between risk-taking propensity and entrepreneurial capability and performance is much less clear. Hao et al. (2009) measure an insignificant effect of risk-taking on entrepreneurial performance. They even expect based their study of the literature (p.389) a negative effect on firm performance:

> *"In our view, an 'appetite' for risk propels one to undertake an entrepreneurial venture, but this same proclivity to take risks may be detrimental after the launch of the new venture. This is because, after the initial stage of new venture founding, entrepreneurs are typically required to manage risk very carefully to maximize profitability and preserve the new venture's limited resources. A strong propensity for risk may lead the entrepreneur to gamble firm resources on new and untested products, technologies, markets, or strategies when persistent exploitation of a known competitive advantage would be more effective. Thus, although we expect risk propensity to be positively related to entrepreneurial intentions, we expect it to be negatively related to firm performance."*

Begley and Boyd (1988) also find an insignificant correlation between risk propensity and entrepreneurial performance, however, their data prove a curvilinear effect, showing that maximum return on assets is associated with moderate risk-taking. Delmar (1996, p. 105 110) reports that successful entrepreneurs are capable of managing risk and seem to exercise a certain degree of caution and he concludes that success of a business is attributable to a combination of risk adversity and high motivation to expand the business, which is never without risk. We conclude that risk-propensity is a proven antecedent of entrepreneurial propensity.

However, the effect on entrepreneurial capability can be negative or has at least an inverse U-shape.

3.11 Need for achievement

Since McClelland (1961) discovered that entrepreneurs score high on need for achievement (nAch), scholars have confirmed that nAch is an antecedent of entrepreneurial propensity (Begley & Boyd, 1988; Beugelsdijk & Noorderhaven, 2004; De Vries, 1977). With respect to entrepreneurial capability and entrepreneurial performance scholars also report a positive correlation with nAch (Collins, Hanges, & Locke, 2004; Johnson, 1990; Lee & Tsang, 2001) as cited in (Jain, 2011). We conclude that nAch correlates positively with both entrepreneurial propensity and capability, although the cited literature claims there is a stronger effect on entrepreneurial capability and performance (Collins et al., 2004).

3.12 Utility, need for money/wealth, social security, recognition and respect

Scholars have argued that entrepreneurial choice includes a utility maximizing decision process (Campbell, 1992; Kautonen, van Gelderen, & Tornikoski, 2013; Monsen, Patzelt, & Saxton, 2010; Poschke, 2013). However Van Praag and Versloot (2007, p. 985) find that non-tangible utilities must play a role in order to explain the preference for self-employment as the mean income is not higher than the mean income of employees.

Hartog, Van Praag, and Van Der Sluis (2010) elaborate on this point further and conclude that:

> *"The same individual has a 30% higher return to general ability when active as an entrepreneur than when working as an employee. Nevertheless, the results suggest that the expected earnings levels in entrepreneurship relative to wage employment are higher only for the upper echelon of the general ability distribution. This is due to the fact that, for the average individual, the expected earnings levels in spells of entrepreneurship are lower than in wage employment."*

This shows that the instances of higher entrepreneurial income go together with higher entrepreneurial capability and that the less capable individuals opt for an entrepreneurial career for reasons other than financial reasons. In conclusion this provides another indication that entrepreneurial propensity does not necessarily go together with high entrepreneurial capability and performance.

4. Conclusion

We reviewed the 12 most studied factors related to entrepreneurial propensity and entrepreneurial capability. For three of these factors: need for achievement; innovativeness; and creativity, we did not find references to opposite effects on entrepreneurial propensity and entrepreneurial capability. For the other nine factors, we found research indicating opposite effects on entrepreneurial propensity and capability. This study of the literature does not provide a quantitative proof of significantly negative correlation coefficients. However, if factors like the need for independence, 'self-efficacy, optimism and overconfidence', risk propensity, the need for power, education, experience, teamwork, financial utility, and flexibility all can have opposite influences on entrepreneurial propensity and capability, then it seems reasonable to conclude that entrepreneurial propensity and entrepreneurial capability do not go together automatically. On the contrary, we should expect the opposite: individuals who engage into entrepreneurial activity might possess antecedents that work against optimal entrepreneurial capabilities, whereas individuals who score high on the entrepreneurial capability dimension probably possess antecedents that counteract their intention to choose for active entrepreneurship. Therefore we presume that the passivity of the capable non-actor is not an exception, and that this passivity, which Ramoglou (2011) says should be respected, is not just a choice, it is upheld by the mechanisms that govern entrepreneurial propensity and capability.

5. Discussion and further research

This opposite relationship between entrepreneurial propensity and capability justifies the existence of a considerable group of individuals who miss either capabilities or propensity factors. The less capable active entrepreneurs have been sufficiently caricatured in literature.

> *"Sometimes the same creative energy that drives an entrepreneur has its source in destructive internal needs that can ruin a career or a company. … Many entrepreneurs are misfits who need to create their own environment." (Kets de Vries, 1985).*

However, the group of capable non-actors, should get more attention in further research. Our conclusions support the view that this group are more sizeable than expected and their entrepreneurial capabilities are by definition antecedents of ventures with ambitious high growth potential, which are the kind of entrepreneurial ventures policy makers seek to promote.

Therefore, we call for research into what governs entrepreneurial propensity among individuals who possess strong entrepreneurial capabilities and we call for research on how theory can be extended in order to explain and understand why the same antecedents often have an opposite effect on propensity and capability.

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