

# Entrepreneurship in Focus

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## The Prototyping Approach – A fresh look at the role of personality in entrepreneurial decision making

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### Summary

The Big Five personality model has been used repeatedly to explain entrepreneurial behaviour, and the traits extraversion and openness to experience have been shown to positively affect self-employment. However, this literature has largely ignored the interplay of the five traits, which is studied in psychological research as part of the person-centred prototyping approach to examining an individual's personality. This article therefore discusses two recent papers that are bridging the gap between psychology and the entrepreneurship and small business literature, by employing the prototyping approach.

The Big Five model represents the most widely accepted way of conceptualizing and measuring an individual's personality structure. There are five independent traits, which have been shown to remain largely stable over a person's life span. *Extraversion* is associated with sociability. *Agreeableness* is linked to a pleasant manner in social exchange but may also lead to conflict avoidance. *Conscientious* individuals are efficient and task-oriented. *Emotional stability* measures resilience in the face of setbacks; and *openness* indicates a willingness to experience new things.

The relationship between the Big Five and entrepreneurial behaviour has been repeatedly examined (e.g. Caliendo et al. 2014). The literature has identified a positive and robust impact of extraversion and openness on the likelihood of becoming self-employed. Similar results with relevance for entrepreneurship are provided by studies from innovation research that investigate the question of what influence the Big Five have on people's ability to innovate.

Other big five traits can also be theoretically linked to entrepreneurial decision making, and some of these hypotheses have been supported by empirical evidence. For example, higher levels of conscientiousness have been shown to exert a positive effect on the longer-term performance of start-ups. Personality traits such as the Big Five can therefore be seen as an indication of entrepreneurial potential and ability, the development of which can be encouraged by policy (e.g. by promoting entrepreneurship education).

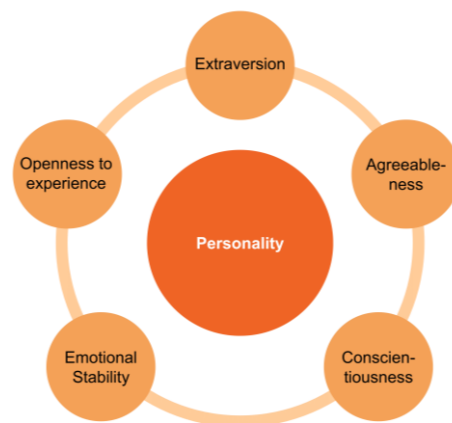
### The prototyping approach

As stated above, the studies mentioned examine the effects of personality traits independently of each other, which we label a trait-based approach. This literature has largely ignored the interplay of various Big Five traits within an individual. In this alternative

way of thinking, certain configurations of traits form a personality type (see e.g. Asendorpf et al. 2001).

Psychological studies of this kind focus less on individual Big Five traits, but rather identify certain trait combinations that are common in the general population. Techniques such as latent class analysis or cluster analysis are used to answer the question of whether there are certain patterns of traits that are more likely to manifest in people's minds.

### The Big Five model of personality



Source: own depiction based on Digman (1990).

According to this person-centered approach, three personality prototypes can be distinguished. The resilient type is characterized by high scores in all Big Five traits. Over-controllers display higher levels of conscientiousness, but lower openness and extraversion scores. In contrast, under-controllers have low values in all Big Five traits, including emotional stability. While the prototyping approach has been employed extensively in psychological research, it has not been reflected in the field of small business and entrepreneurship research for a long time. Only recently have researchers begun to bridge the gap between the two fields (Runst & Thomä, 2022a; Caliendo et al., 2022; and Runst & Thomä, 2022b).

## Example 1: Entrepreneurship

Runst & Thomä (2022b) use SOEP data to present evidence for the role of Big Five traits in the context of self-employment decisions. They find a positive effect of extraversion and openness. Similarly, they show that certain prototypes are an important predictor of entrepreneurship. Individuals with a resilient personality type that combines high levels in all five traits are significantly more likely to be self-employed than persons of the other two prototypes. This analysis thus underlines the fact that the Big Five traits should not only be analyzed independently, but also holistically, i.e. in terms of trait combinations. According to Runst & Thomä (2022b), the prototyping approach can also explain entrepreneurial decisions beyond what can already be explained by profiling, which is another person-centered approach.

From a policy perspective, it can therefore be argued that career and start-up advice should not be based exclusively on the trait-based or the profiling approaches. Otherwise, too many potential entrepreneurs might be deterred from their entrepreneurial aspirations. At the same time, it must be emphasized that an individual's personality structure is only one of many determinants of starting a business.

## Example 2: Innovation in SMEs

Runst & Thomä (2022a) use the prototype approach to analyze the relationship between the personality of owners and the innovativeness of small and medium-sized enterprises (SMEs). Small business owners play a critical role in the innovation processes of their firms. Their personality shapes external as well as internal communication and knowledge flows, and thus often determines the company's innovation culture.

Based on Big five survey data of craft SMEs in the German state of Saxony, this study shows that a resilient prototype of owners positively affects innovation in those SMEs that rather rely on interactive learning within the company and with external partners instead of in-house research and development (R&D). Since this effect is only observed in non-R&D firms, the personality aspect is therefore a potential explanation for the surprising innovation success of these types of SMEs.

From the point of view of innovation and SME policy, this shows that the aspect of psychological self-awareness should also be taken into account in the training and counselling of small business owners, so that they can effectively fulfil their important role in the firm's innovation process. At the same time, it is important that policy promotes mutual exchange

and networking, e.g. at the regional level, so that the owner's personality can have a positive effect, especially in less R&D-oriented innovation environments.

## Outlook

The exemplary presentation of the two current papers shows the potential that the application of the prototyping approach offers for questions of entrepreneurship and small business research. In this respect, it can be expected that further insights can be gained from this approach in the future.

Its added value in terms of deriving policy implications also became clear. At this point, it must be emphasized that the development of certain personality characteristics and prototypes that are conducive to entrepreneurship or innovation can hardly be directly influenced by policy. However, policy makers can try to design the framework conditions for entrepreneurial decision making as effective as possible, so that the potential available at the personality level of entrepreneurs and owners can develop optimally.

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