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## Is it boring to be an entrepreneur? Evidence from Europe\*

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#### **Abstract**

Individuals not only seek a happy and meaningful life, but an interesting one. In this letter, we show that past estimates of the well-being gains from entrepreneurship have overlooked an important aspect of the relationship between self-employment and well-being: boredom. Using a sample of over 30,000 individuals from 25 European countries, we show that self-employment is related to lower levels of boredom – a relationship that is not captured by traditional measures of hedonic or eudaimonic well-being.

#### 1 Introduction

A growing body of evidence shows that self-employment is associated with enhanced well-being. In fact, past work has employed both hedonic (i.e., happiness) and eudaimonic (i.e., meaning) measures to quantify the well-being gains from self-employment (Binder and Coad, 2013; Ryff, 2019; Stephan et al., 2023; Zhao et al., 2020). Yet, recent work on well-being suggests that individuals not only seek a happy and meaningful life, but an interesting one, a psychologically-rich life (Oishi and Westgate, 2022). In this letter, we show that past estimates of the well-being gains from entrepreneurship have

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overlooked an important aspect of the relationship between self-employment and well-being: boredom.

Defined as the aversive experience of wanting but being unable to engage in a satisfying activity (Eastwood et al., 2012), boredom is a common emotional state, particularly prevalent among men, younger individuals, and low-income earners (Chin et al., 2017; Pirla et al., 2024). It has important motivational components (Westgate, 2020), although work on the economic consequences of boredom has found mixed results (Meier et al., 2024; Pirla and Navarro-Martinez, 2022; Yakobi and Danckert, 2021).

In this letter, we use a sample of 30,000 individuals from 25 European countries to demonstrate that self-employment is related to lower levels of boredom. Moreover, we show that this relationship cannot be captured by traditional measures of hedonic (i.e., life satisfaction) or eudaimonic (i.e., meaning in life) well-being. Altogether, our results suggest that past work has overlooked an important component of the relationship between self-employment and well-being.

#### 2 Data

The European Social Survey (ERIC, 2018) is a publicly available, multicountry survey that includes data on a wide variety of socio-economic indicators. In its third round, collected in 2006, the European Social Survey included a measure of respondents' boredom frequency over the past week, assessed using a 4-point Likert scale ranging from 1 ("None or almost none of the time") to 4 ("All or almost all of the time"). It also includes various measures of well-being. For our main analyses, we focused on one measure of hedonic well-being (i.e., life satisfaction) and one measure of eudaimonic well-being (i.e., meaning in life). Specifically, respondents reported their life satisfaction by answering (on a 10-point scale) the question: "How satisfied are you with how your life has turned out so far?" Meaning in life was assessed by asking participants to indicate their agreement (on a 5-point Likert scale) with the following statement: "I generally feel that what I do in my life is valuable and worthwhile."

In addition to information on respondents' well-being and boredom levels, the survey includes data on participants' entrepreneurial status (employee vs. self-employed) and demographic characteristics (age, gender, educational attainment, country of residence, income).

In this letter, we focus on the subset of respondents who had complete data for our variables of interest and reported being either employed or self-employed. This resulted a final sample of 32,128 individuals from 25 countries. We present a complete overview of our sample demographic information and distribution by country in Table 1 and Table 2.

Table 1: Summary statistics

Variable	N	Mean	Std. Dev.	Min	Pctl. 25	Pctl. 75	Max
Income	32128	24154	23031	600	4800	33000	105000
Female	32128	0.531	0.499	0	0	1	1
Age	32128	49	17.1	15	35.3	62	96.8
Education	32128						
Less than lower secondary	3598	11.2%					
Lower secondary	5289	16.5%					
Upper secondary	12930	40.2%					
Post-secondary non-tertiary	999	3.1%					
Tertiary	9287	28.9%					
Other	25	0.1%					
Boredom	32128	1.44	0.668	1	1	2	4
Life satisfaction	32128	6.84	2.08	0	6	8	10
Life meaning	32128	3.94	0.745	1	4	4	5
Self-employed	32128	0.0892	0.285	0	0	0	1

Table 2: Sample distribution by country

Country	Observations	% Total Observations	Country	Observations	% Total Observations
AT	1269	3.9%	IE	1068	3.3%
BE	1349	4.2%	LV	1264	3.9%
BG	914	2.8%	NL	1531	4.8%
CH	1302	4.1%	NO	1501	4.7%
CY	658	2%	PL	1171	3.6%
DE	1987	6.2%	PT	1045	3.3%
DK	1254	3.9%	RO	1456	4.5%
EE	934	2.9%	RU	1662	5.2%
ES	991	3.1%	SE	1645	5.1%
FI	1612	5%	SI	951	3%
FR	1607	5%	SK	929	2.9%
GB	1708	5.3%	UA	1203	3.7%
HU	1117	3.5%			

### 3 Empirical Strategy

Using OLS, we estimated the following regression model using robust standard errors clustered at the country level.

$$B_{ij} = \beta_0 + \beta_1 \cdot S_{ij} + D'_{ij} \cdot \delta_1 + K'_j \cdot \delta_2 + \epsilon_{ij}$$
 (1)

Where  $B_{ij}$  represents the boredom reported by individual i in country j,  $S_{ij}$  is a binary variable equal to 1 if the individual is self-employed and 0 if employed by others,  $D_{ij}$  denotes a vector of demographic variables that includes age, gender, educational attainment, and the log of yearly household income,  $K_j$  represents a vector of country-level dummy variables, and  $\epsilon_{ij}$  is a normally distributed error term.

In addition to this specification, we tested whether the relationship between self-employment and boredom could be captured by traditional well-being measures. To assess this, we estimated the following extended model.

$$B_{ij} = \beta_0 + \beta_1 \cdot S_{ij} + \beta_2 \cdot LS_{ij} + \beta_3 \cdot M_{ij} + D'_{ij} \cdot \delta_1 + K'_j \cdot \delta_2 + \epsilon_{ij}$$
 (2)

Where, in addition to the previously mentioned variables,  $LS_{ij}$  and  $M_{ij}$  represent the participants' life satisfaction and meaning in life.

As as a robustness check, we replicated these two specifications using an ordered logit model.

#### 4 Results

Our main results are presented in Table 1. Using OLS (Model 1), we found that self-employed individuals report lower levels of boredom. For example, our OLS results indicate that self-employment is associated with a 0.09 decrease in boredom on our 1 to 4 scale. Importantly, this relationship between self-employment and boredom is not explained by traditional well-being measures, such as life satisfaction or meaning in life. Although controlling for these well-being measures (Models 2) reduces the association between self-employment and boredom by one-third, the overall findings remain qualitatively similar.

These results are replicated in our ordered logit specifications. These additional results suggest that self-employment is associated with a decrease in the likelihood of selecting a higher boredom category of 31.4% (Model 3). Controlling for life satisfaction and meaning in life only decreases this effect size by 20%. Even when controlling for other measures of well-being, self-employment is related to a 26.7% decrease in the probability of selecting a higher boredom category (Model 4).

In summary, our results demonstrate that self-employed individuals experience lower levels of boredom, a relationship that cannot be captured

Table 3: Regression results

		Depend	ent variable:		
	Bore	dom	Boredom logistic		
	O	LS			
	(1)	(2)	(3)	(4)	
Life satisfaction		-0.064*** (0.005)		-0.181*** (0.016)	
Life meaning		-0.097*** (0.008)		-0.331*** (0.025)	
Self-employed	-0.091***	-0.068***	-0.377***	-0.311***	
	(0.012)	(0.012)	(0.050)	(0.053)	
Age	-0.003***	-0.003***	-0.012***	-0.012***	
	(0.001)	(0.001)	(0.003)	(0.003)	
Female	-0.040***	-0.037***	-0.204***	-0.203***	
	(0.014)	(0.013)	(0.055)	(0.054)	
Lower secondary education	-0.041* (0.021)	-0.045*** (0.018)	-0.078 (0.052)	-0.098* (0.052)	
Upper secondary education	-0.134***	-0.122***	-0.347***	-0.322***	
	(0.016)	(0.013)	(0.052)	(0.051)	
Post-secondary non-tertiary education	-0.182***	-0.159***	-0.594***	-0.541***	
	(0.022)	(0.022)	(0.101)	(0.118)	
Tertiary education	-0.189***	-0.161***	-0.564***	-0.492***	
	(0.017)	(0.014)	(0.066)	(0.066)	
Other education	0.132***	0.178***	0.233	0.400**	
	(0.033)	(0.019)	(0.166)	(0.193)	
Log income	-0.092***	-0.052***	-0.275***	-0.168***	
	(0.013)	(0.011)	(0.043)	(0.041)	
Constant	2.602***	3.040***	3.015***	4.554***	
	(0.145)	(0.148)	(0.535)	(0.591)	
Observations R <sup>2</sup> Adjusted R <sup>2</sup>	32,128 0.110	32,128 0.164	32,128	32,128	
Adjusted R <sup>2</sup> Log Likelihood Akaike Inf. Crit. Residual Std. Error F Statistic	0.110 0.630 120.759***	0.163 0.611 180.209***	-19,061.420 38,190.840	-18,356.290 36,784.590	

Note:

\*p<0.1; \*\*p<0.05; \*\*\*p<0.01

by traditional well-being measures.

#### 5 Conclusion

In this paper, we have shown that self-employment is associated with lower levels of boredom, an important but often overlooked aspect of well-being. Using a large sample of over 30,000 individuals from 25 European countries, we demonstrated that the relationship between self-employment and reduced boredom is not fully explained by traditional measures of well-being, such as life satisfaction and meaning in life. These findings suggest that entrepreneurship may offer psychological benefits previously unaccounted for, specifically by contributing to a more interesting life.

Our work contributes to a growing body of evidence on the determinants and correlates of entrepreneurship (Binder and Coad, 2013; Giménez-Nadal et al., 2023; Lamotte and Colovic, 2013; Molina et al., 2016; Ryff, 2019; Stephan et al., 2023; Velilla and Ortega, 2017; Zhao et al., 2020). As boredom is an aversive emotional state, our results highlight the need for future research to explore how different entrepreneurial contexts and work environments can influence this aspect of well-being. By broadening our understanding of the psychological impacts of self-employment, we can better quantify the well-being gains from entrepreneurship.

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#### Declaration of interest statement

The authors report there are no competing interests to declare.

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