

Noncognitive Determinants of Retirement Saving Behavior

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Abstract

This chapter examines the impact of noncognitive skills like conscientiousness, stress resistance, and grit on retirement readiness using Dutch household survey data. Conscientiousness significantly influences financial decisions related to savings, investments, and retirement planning. Individuals with these noncognitive skills exhibit behaviors such as increased savings and financial buffers. These skills are positively associated with participation in the stock market and the propensity to plan for retirement, seeking greater flexibility in savings and investments. Additionally, there is a positive correlation between noncognitive ability and the likelihood of opting out of the default pension plan.

Keywords: Retirement, savings, financial choices, noncognitive abilities, psychology and economics

JEL codes: G11; G40; G41; G50; G51

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Finance research has traditionally centered on understanding how cognitive abilities and financial literacy impact individuals' preparedness for retirement. The primary emphasis has been on gauging how well people grasp financial concepts and information, linking these cognitive skills to their readiness for the retirement phase. Yet, a recent shift in research focus recognizes that factors beyond cognitive capabilities also play a crucial role in determining effective savings habits and successful retirement planning.

Noncognitive skills can directly and indirectly impact retirement preparedness via different channels. Research has shown that income differences are driven, in part, by noncognitive abilities (Heckman et al. 2006, Lindqvist and Vestman 2011). Using household survey data from the Netherlands, we find that these 'character' skills influence household financial wellbeing beyond the income differences they cause (Parise and Peijnenburg 2019). In this chapter, we explore the direct causes of limited retirement readiness.

This emerging attention to noncognitive abilities offers a more detailed understanding of the complexities involved in retirement decisions. Moreover, the interaction between cognitive and noncognitive factors provides an opportunity to refine and rethink existing interventions, paving the way for a more comprehensive approach to fostering retirement preparedness. In what follows, we first review different types and measurements of noncognitive abilities. Next, we explore the relation between noncognitive traits and decisions important for retirement preparedness, in particular saving, investments, and retirement planning. We conclude with a discussion of potential policy implications.

Setting the Stage

Noncognitive abilities. Noncognitive abilities, also labelled personality traits, are enduring characteristics that shape peoples' responses and behaviors across diverse situations. Noncognitive abilities refer to a set of characteristics and skills that are distinct from cognitive skills, focusing on aspects of individuals' psychological and emotional makeup; these traits often include conscientiousness, emotional intelligence, resilience, and locus of control. Unlike cognitive skills, which involve intellectual capabilities such as IQ, knowledge, and financial literacy, noncognitive abilities encompass the interpersonal, emotional, and motivational aspects of individuals' functioning. The importance of noncognitive abilities in the financial arena lies in their influence on how individuals approach challenges, interact with others, and make decisions, ultimately contributing to their overall success and well-being.

Measurement challenges of noncognitive abilities. The measurement of noncognitive abilities presents a formidable challenge due to the inherent complexity and subtlety of these traits. Several measurement methods have been devised, each with their own strengths and limitations; these methods include self-report surveys, peer evaluations, and situational judgment tests. The reliance on self-reporting introduces potential biases, as individuals may not accurately assess or may intentionally modify their noncognitive attributes. In particular, self-reported measures introduce the risk of social desirability bias, as individuals may provide responses they perceive as socially acceptable rather than reflecting their true behavioral tendencies. Moreover, the contextual nature of noncognitive abilities complicates the development of universally applicable measurement tools.

Among the various models used to conceptualize noncognitive abilities, the Big Five personality traits stand out as a widely accepted framework (Heckman et al. 2013). These traits

cover openness, conscientiousness, extraversion, agreeableness, and emotional stability. Each trait encompasses a broad range of behaviors, tendencies, and dispositions that collectively contribute to an individual's noncognitive profile. The challenge lies not only in defining and operationalizing these traits but also in accurately measuring them to gain meaningful insights into an individual's noncognitive capacity.

In seeking alternative measures for noncognitive abilities, grit has gained prominence (Duckworth et al. 2007). Grit describes the tendency to persevere and having a passion for long-term goals. This noncognitive skill is regarded as a valuable predictor of success. Measurement tools for grit often include scales with items assessing individuals' commitment to long-term goals and their perseverance in the face of setbacks. For instance, respondents may be asked to rate statements like 'Setbacks don't discourage me,' 'I don't give up easily,' or 'I finish whatever I begin.' Grit's focus on sustained effort and resilience offers a distinct perspective on noncognitive traits beyond the Big Five framework.

Beyond the Big Five personality traits and grit, 'locus of control' is another frequently used measure of noncognitive abilities. Locus of control refers to individuals' beliefs about the extent to which they can control events in their lives. Internal locus of control indicates a belief in personal agency, while external locus of control suggests attributing events to external forces. Measurement often involves Likert-scale items gauging agreement with statements like 'I feel I am in control of my life' or 'Luck plays a significant role in determining life outcomes.' (Ng et al. 2006). Other measures, such as self-efficacy and emotional intelligence assessments, add further dimensions to the challenging task of comprehensively capturing noncognitive abilities in empirical research.

Conscientiousness. In what follows, we measure conscientiousness using the Big Five Personality trait questionnaire. Conscientiousness describes the tendency to be organized, practical, persistent,

self-disciplined, and achievement oriented (e.g., McAdams 2008). We focus on the personality trait conscientiousness, as previous work consistently shows that this trait is a major determinant of financial choices. For instance, Parise and Peijnenburg (2019) show that conscientiousness is an important determinant of financial distress. Figure 1 illustrates that those in the bottom quintiles of conscientiousness and emotional stability have an almost tenfold higher probability to be in financial distress, compared to people in the top quintiles of these two noncognitive traits.

Figure 1 here

We measure conscientiousness using 10 questions specifically designed to measure this personality trait following Goldberg (1992). Examples of questions are, ‘I am always prepared,’ ‘I pay attention to details,’ and ‘I like order.’ Importantly, these questions are asked without reference to any context, which could limit the risk of mechanical correlations. For example, a respondent would be more likely to answer that she gets stressed easily about her retirement preparedness if her financial situation is poor, thereby inducing a mechanical correlation in the data. Respondents receive the following instruction: ‘Please use the rating scale below to describe how accurately each statement describes you: (1) very inaccurate, (2) moderately inaccurate, (3) neither inaccurate nor accurate, (4) moderately accurate, (5) very accurate.’ Subjects are not informed what the questions are intended to measure, and the ordering of the questions is random. We summarize responses related to conscientiousness into one measure by using factor analysis.

Data from the Netherlands

The study utilizes data from the Longitudinal Internet Study for the Social Sciences (LISS) panel, a representative household survey conducted by CentERdata at Tilburg University in the Netherlands. This panel, operational since October 2007, spans the years 2008 to 2017 and

includes 13,145 individuals randomly drawn from the population register by Statistics Netherlands. Attrition and the addition of new individuals imply that each cross-section comprises around 7,000 respondents at any given time.

The survey is computer-based, enabling subjects to participate from home, and efforts are made to mitigate selection bias by providing computers and internet connections to those who could not participate otherwise. To incentivize participation and retention, subjects receive compensation for each completed survey. This dataset is particularly well suited for our research, since one of the annual survey modules includes standard questions measuring noncognitive abilities following the Big Five personality framework. Additionally, the dataset encompasses various measures of financial distress, along with an extensive array of demographic controls, preferences, and cognitive ability variables.

Noncognitive Abilities and Savings

Next, we discuss the empirical relationships between noncognitive abilities and savings. We provide evidence using our own calculations and build on prior work. Figure 2 summarizes the relation between noncognitive abilities and savings. For ease of interpretation, we standardize the noncognitive ability variable to have a mean of zero and a standard deviation of one. The y-axis shows peoples' financial wealth buffer, defined as deposit accounts plus savings plus equity investments, and the x-axis shows the standardized noncognitive ability measure. The curve is fitted using kernel-weighted polynomial smoothing, and the gray shading represents 95 percent confidence intervals. We clearly see that people with higher noncognitive abilities have higher savings buffers. The magnitudes are also sizeable: people with noncognitive abilities falling two standard deviations below the mean have financial wealth levels of approximately 43,000 euros,

compared to 70,000 euros for those with noncognitive abilities two standard deviations above the mean.

Figure 2 here

We test this relation more formally in Table 1. Here we report the estimated association between conscientiousness and three financial choices: Financial wealth buffer, savings, and unsecured debt. Controls are included for risk aversion (lottery and self-reported), ambiguity aversion, numeracy, trust, optimism, financial literacy, agreeableness, openness, extraversion, male, children living at home, age, age squared, home ownership, education, partner, residence in a rural area, missing data dummies, and year dummies when indicated. The results are from ordinary least squares and probit regressions. The evidence confirms that people with lower conscientiousness also have lower financial wealth buffers, are less likely to save out of their income, and are more likely to have unsecured debt.

Table 1 here

Several studies have investigated the relationship between savings behavior and specific noncognitive abilities. For instance, Cobb-Clark et al. (2016) showed that those with an internal locus of control save more. Those people feel that much of what happens in life stems from their own actions. Similarly, Hurd et al. (2012) found that conscientiousness relates to higher levels of wealth accumulation. Duckworth and Weir (2010) explore the impact of grit—the noncognitive trait associated with perseverance and passion for long-term goals—on savings habits. Their findings suggested that individuals with higher levels of grit tended to exhibit more consistent and disciplined saving practices. Letkiewicz and Fox (2014) delved into the role of financial self-efficacy, the noncognitive factor reflecting an individual’s belief in their ability to manage financial matters. Their research indicated a positive correlation between higher financial self-efficacy and

increased savings behaviors. Nyhus and Webley (2001) examined the influence of future time perspective—a noncognitive factor reflecting an individual’s orientation toward the future—on savings behavior. Their results suggested that individuals with a longer-term perspective were more likely to adopt prudent saving habits.

These outcomes underscore the pivotal role of noncognitive skills in shaping financial behaviors that directly impact peoples’ readiness for retirement and welfare during the retirement phase.

Noncognitive Abilities and Investments

Several authors have posited that noncognitive abilities could impact investment decisions. Akin to cognitive abilities, those with lower noncognitive abilities might make classic portfolio choice mistakes. These errors include non-participation in the stock market, having little financial wealth allocated to equity, being home biased, and under-diversifying investments. The mechanism here is that people with low conscientiousness are potentially less able to collect information about stock investments, process this information, and make optimal portfolio choices.

Figure 3 illustrates the relation between conscientiousness and the fraction of financial wealth people allocate to equity, offering insight into the relationship between noncognitive abilities and investment decisions. As expected, we find a positive relation between noncognitive skills and the fraction of financial wealth allocated to equity. This is further confirmed by Jiang et al. (2023), who showed that noncognitive traits are predictive of participation in the stock market. Their research, focusing on the measurement of noncognitive abilities with the Big Five personality traits, effectively reinforces the notion that these traits play a pivotal role in influencing individuals’ decisions regarding stock market participation.

Figure 3 here

Lindqvist et al. (2018) provided similar findings. Using data incorporating test scores derived from Swedish military rolls, their findings affirmed the pervasive impact of noncognitive abilities on portfolio choices. These collective insights underscore the robustness of the identified relation, substantiating its relevance across diverse datasets and methodologies. These portfolio choice mistakes can have large welfare consequences due to the sizeable equity premium left on the table.

Noncognitive Abilities and Retirement Planning

Planning for retirement is important to ensure sufficient retirement income, reduce uncertainty, and avoid negative surprises (Van Rooij et al. 2012). It is therefore helpful that at regular intervals, people take stock of their savings, their expected income needs during retirement, and expected retirement dates. These calculations are complicated for many people as they require an understanding of pension statements, an ability to project savings and retirement expenses, and an awareness of the impact of retiring early or later on their pension income. We hypothesize that conscientious people are better equipped to plan for their retirement. To generate a measure for retirement planning in our empirical analysis, LISS respondents were given the following preamble: ‘The following questions are about the financial needs of you [and your partner/spouse] during retirement. Please assume for all the questions that prices of the things you spend your money on remain the same in the future as today; that is, please answer the questions as if there will be (no inflation).’ A question on retirement planning is posed afterwards, as follows: ‘How much have you thought about retirement: (1) hardly at all, (2) a little, (3) some, (4) a lot’.

Figure 4 shows the retirement planning variable for below and above average level of conscientiousness. We see that 20 percent of those with below-median conscientiousness have thought ‘hardly at all’ about retirement, compared to 16 percent of those with above-median conscientiousness. Planning can have a large impact on pension preparedness, as it allows people to adjust their savings and investments well before retirement.

Figure 4 here

Figure 5 demonstrates the relation between conscientious and peoples’ desire for flexibility in pension savings and investments. In particular, respondents answer: ‘I would like to take some responsibility for my old-age provision—for example, to decide how much to save and how to invest my savings’. Answers ranged from (1) definitely not, to (4) yes, definitely. A greater degree of flexibility in savings and investment decisions is valued mostly by conscientious people. Thus, 44 percent of people with above-median conscientiousness would like to have more flexibility, compared to 36 percent of people with below-median conscientiousness. Increased flexibility and responsibility could be welfare-improving, particularly given that the people who value increased responsibility are also those more likely able to handle the responsibility.

Figure 5 here

Noncognitive Abilities and Pension Default Investment Behavior

Default pension funds often serve as the choice for individuals entering government-mandated defined contribution pension plans such as in Sweden, and in employer plans as in the US. Understanding the factors that influence people’s decisions to deviate from the default option is crucial for policymakers, financial analysts, and researchers alike.

Lindqvist et al. (2018) investigated the relationship between cognitive and non-cognitive skills, and the decision to opt out of the Swedish government mandated default pension system launched in 2000. Surprisingly, the results reveal that at the time of the plan's inception, non-cognitive rather than cognitive skills were influential in predicting people's decisions to opt out of the default fund. Cognitive skills, on the other hand, were associated with increased activity, in terms of reallocating investments between funds, conditional on opting out.

The positive correlation between non-cognitive skills and opting out of the default was attributed to the intense information and advertising campaigns during that period, reflecting what Cronqvist and Thaler (2004) termed a 'pro-choice' culture. Within this context, the term refers to an environment marked by intense information and advertising campaigns that strongly encourage individuals to actively make choices regarding their pension fund allocations. The persuasive nature of these campaigns likely influenced Swedish workers with higher non-cognitive skills, who, in response to the proactively-presented alternatives, demonstrated a greater propensity to opt out of the default fund.

Are Noncognitive Abilities Malleable?

Much behavioral evidence suggests that noncognitive abilities exhibit a certain degree of permanence, influenced by early-life experiences and genetic endowments. Several studies indicate that over half of noncognitive abilities may be heritable, with only a limited impact of the external environment on these traits after childhood (e.g., Bouchard and Loehlin 2001; Bouchard and McGue 2003). To what extent noncognitive abilities are influenced by genetics remains an active area of research. A comprehensive review of over 150 longitudinal studies (Roberts and DelVecchio 2000) underscored that noncognitive abilities tend to exhibit increasing stability with

age. Notably, abilities measured for the same individuals from six to 30 years later are correlated from 60 percent to 80 percent with the original measurements (Costa Jr. and McCrae 1994); in other words, these skills do not change much during adulthood. This is important since it reduces potential concerns regarding reverse causality.

Why Do Noncognitive Abilities Impact Financial Choices?

It is also useful to understand the mechanisms by which noncognitive abilities influence financial choices. One answer would be to incorporate noncognitive skills in an economic model, which could provide insight for policymakers on whether, and how, noncognitive abilities can be improved. Parise and Peijnenburg (2019) showed that character skills do influence the productivity of effort as well as the cost of effort for financial decision making. For example, more conscientious people are better at gathering and processing information about different investment opportunities, and at making more informed decisions. More emotionally stable people can decide how to invest pension wealth more calmly. Accordingly, noncognitive abilities could be usefully incorporated in an economic framework, as factors influencing the cost of effort and the productivity of effort in financial decision making.

Conclusions

This research investigates the association between noncognitive skills, particularly conscientiousness, and retirement preparedness using data from Dutch households. We show that individuals with higher noncognitive skills display specific financial behaviors, including increased savings out of income and larger financial buffers. Notably, conscientiousness correlates positively with participation in the stock market, enhancing the likelihood of accumulating

sufficient retirement savings. Furthermore, individuals with better noncognitive skills are more likely to plan for retirement and prefer flexibility in their savings and investment decisions. These findings contribute to the understanding of retirement readiness, by emphasizing the role of noncognitive factors, beyond cognitive abilities, in shaping financial decisions.

The identified relationships between conscientiousness and various financial choices underscore the importance of considering noncognitive aspects when designing interventions to enhance retirement preparedness. This insight has implications for policymakers, financial analysts, and researchers, emphasizing the need for a comprehensive understanding of how cognitive and noncognitive factors interact in influencing individuals' financial trajectories as they consider and plan for retirement.

References

- Bouchard, T.J., Jr. and J.C. Loehlin (2001). 'Genes, Evolution, and Personality.' *Behavior Genetics*, 31(3): 243-273.
- Bouchard, T.J., Jr. and M. McGue (2003). 'Genetic and Environmental Influences on Human Psychological Differences.' *Journal of Neurobiology*, 54(1): 4-45.
- Cobb-Clark, D.A., S.C. Kassenboehmer, and M. Sinning (2016). 'Locus of Control and Savings.' *Journal of Banking and Finance*, 73: 113-130.
- Costa, P.T., Jr. and R.R. McCrae (1994). 'Set Like Plaster? Evidence for the Stability of Adult Personality.' In T.F. Heatherton and J.L. Weinberger, eds., *Can Personality Change?* Washington, DC: American Psychological Association, pp. 21-40.
- Cronqvist, H. and R.H. Thaler (2004). 'Design Choices in Privatized Social-Security Systems: Learning from the Swedish Experience.' *American Economic Review*, 94(2): 424-428.
- Duckworth, A.L., C. Peterson, M.D. Matthews, and D.R. Kelly (2007). 'Grit: Perseverance and Passion for Long-term Goals.' *Journal of Personality and Social Psychology*, 92(6): 1087-1101.
- Duckworth, A. and D. Weir (2010). 'Personality, Lifetime Earnings, and Retirement Wealth.' Michigan Retirement Research Center Research Paper No. 2010-235. Ann Arbor, MI: University of Michigan Retirement Research Center.
- Goldberg, L.R. (1992). 'The Development of Markers for the Big-Five Factor Structure.' *Psychological Assessment*, 4(1): 26-42.
- Heckman, J., R. Pinto, and P. Savelyev (2013). 'Understanding the Mechanisms Through Which an Influential Early Childhood Program Boosted Adult Outcomes.' *American Economic Review*, 103(6): 2052-2086.

- Heckman, J.J., J. Stixrud, and S. Urzua (2006). 'The Effects of Cognitive and Noncognitive Abilities on Labor Market Outcomes and Social Behavior.' *Journal of Labor Economics*, 24(3): 411-482.
- Hurd, M.D., A.L. Duckworth, S. Rohwedder, and D.R. Weir (2012). 'Personality Traits and Economic Preparation for Retirement.' Michigan Retirement Research Center Research Paper No. 2012-279. Ann Arbor, MI: University of Michigan Retirement Research Center.
- Jiang, Z., C. Peng, and H. Yan (2023). 'Personality Differences and Investment Decision-Making.' NBER Working Paper No. 31041. Cambridge, MA: National Bureau of Economic Research.
- Letkiewicz, J.C. and J.J. Fox (2014). 'Conscientiousness, Financial Literacy, and Asset Accumulation of Young Adults.' *Journal of Consumer Affairs*, 48(2): 274-300.
- Lindqvist, E., F. Paues, and R. Vestman (2018). 'The Role of Cognitive and Non-Cognitive Skills for Investment Behavior.' Working Paper. Stockholm, Sweden: Stockholm University.
- Lindqvist, E. and R. Vestman (2011). 'The Labor Market Returns to Cognitive and Noncognitive Ability: Evidence from the Swedish Enlistment.' *American Economic Journal: Applied Economics*, 3(1): 101-128.
- McAdams, D.P. (2008). *The Person: An Introduction to the Science of Personality Psychology*. New York, NY: John Wiley and Sons.
- Ng, T.W.H., K.L. Sorensen, and L.T. Eby (2006). 'Locus of Control at Work: a Meta-analysis.' *Journal of Organizational Behavior*, 27(8): 1057-1087.
- Nyhus, E.K. and P. Webley (2001). 'The Role of Personality in Household Saving and Borrowing Behaviour.' *European Journal of Personality*, 15(S1): S85-S103.
- Parise, G. and K. Peijnenburg (2019). 'Noncognitive Abilities and Financial Distress: Evidence from a Representative Household Panel.' *The Review of Financial Studies*, 32(10): 3884-3919.

Roberts, B.W. and W.F. DelVecchio (2000). 'The Rank-order Consistency of Personality Traits from Childhood to Old Age: A Quantitative Review of Longitudinal Studies.' *Psychological Bulletin*, 126(1): 3-25.

Van Rooij, M.C.J., A. Lusardi, and R.J.M. Alessie (2012). 'Financial Literacy, Retirement Planning and Household Wealth.' *The Economic Journal*, 122(560): 449-478.

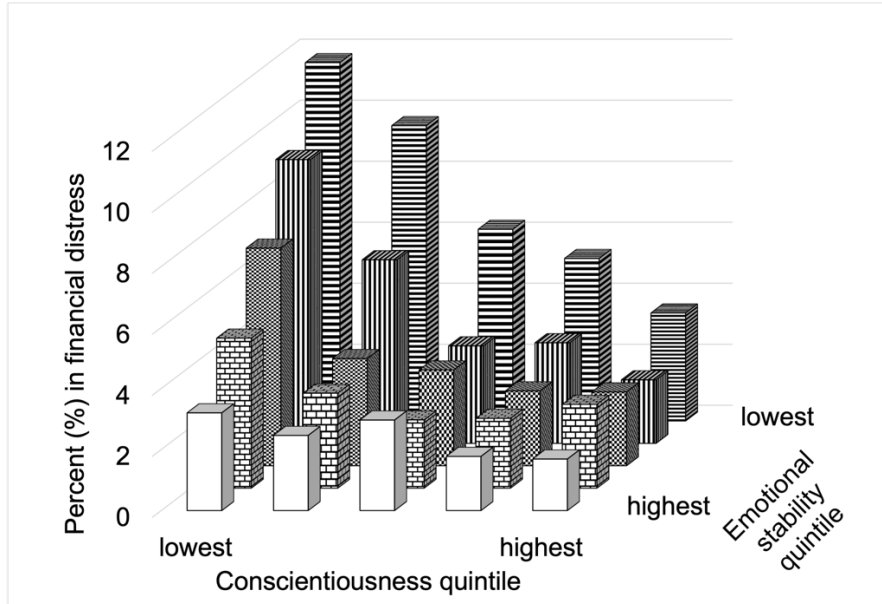


Figure 1. Noncognitive abilities and financial distress

Note: This figure displays the percentage of households in financial distress by quintile of emotional stability and conscientiousness. Financial distress is measured as being delinquent on mortgage payments, rent payments, utility bills, or other bills.

Source: Parise and Peijnenburg (2019)

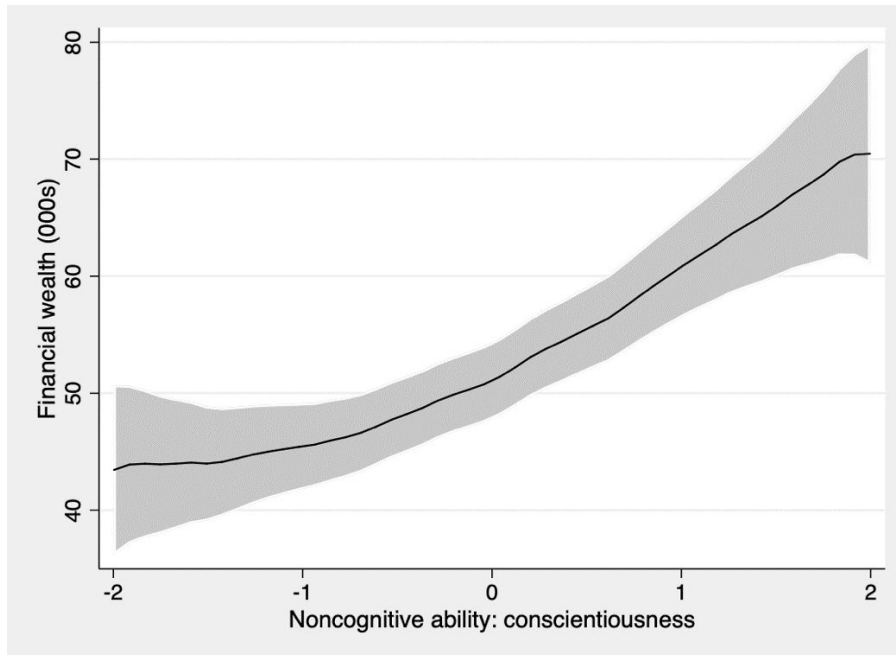


Figure 2. Noncognitive abilities and financial wealth buffer

Note: This figure displays the fitted curve from a local polynomial regression. The dependent variable is *Financial Wealth* and the independent variable is *Conscientiousness*. *Conscientiousness* is standardized to have a mean of zero and a standard deviation of one. *Conscientiousness* is restricted from -2 standard deviations to +2 standard deviations around the mean. The shaded area represents the 95% confidence interval. The data are sourced from the LISS panel spanning the period 2008-2017.

Source: Authors' calculations; see text.

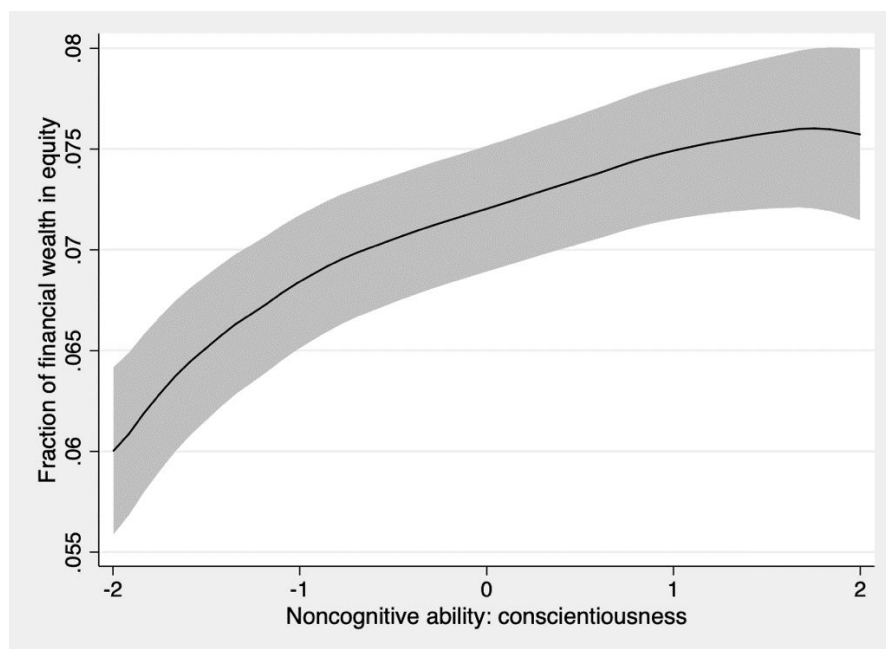


Figure 3. Noncognitive abilities and the fraction allocated to equity

Note: This figure displays the fitted curve from a local polynomial regression. The dependent variable is *Fraction in Equity* and the independent variable is *Conscientiousness*. *Conscientiousness* is standardized to have a mean of zero and a standard deviation of one. *Conscientiousness* is restricted from -2 standard deviations to +2 standard deviations around the mean. *Fraction in Equity* is calculated as the fraction of total financial wealth invested in equity. The shaded area represents the 95% confidence interval. The data are sourced from the LISS panel spanning the period 2008-2016.

Source: Authors' calculations; see text.

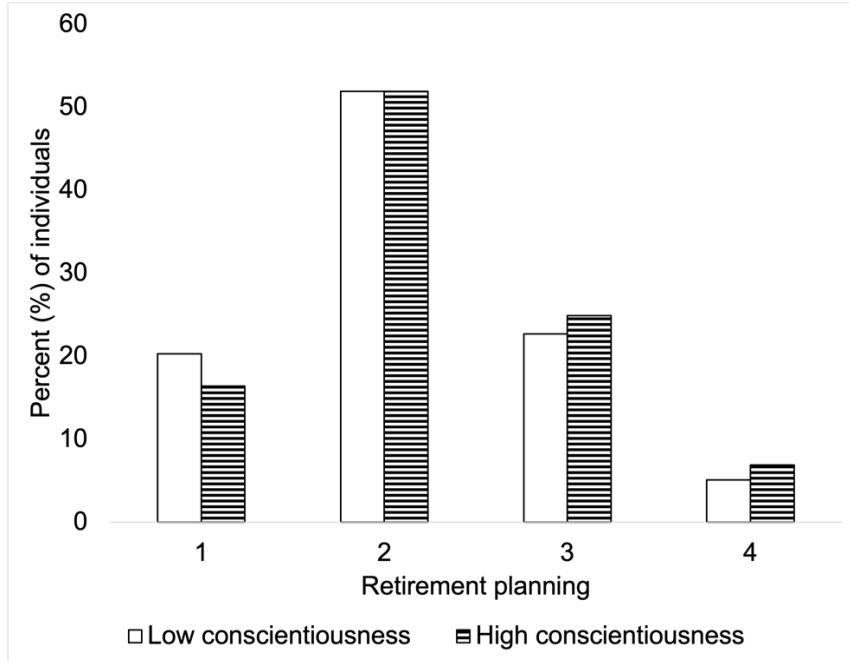


Figure 4. Noncognitive abilities and retirement planning

Note: This figure illustrates the percentage of individuals indicating various levels of retirement planning, ranging from minimal planning (level 1) to extensive planning (level 4). The left panel presents retirement planning for individuals with below-median conscientiousness scores, while the right panel depicts retirement planning for those with above-median conscientiousness scores. The data are sourced from the LISS panel spanning the period 2008-2015.

Source: Authors' calculations; see text.

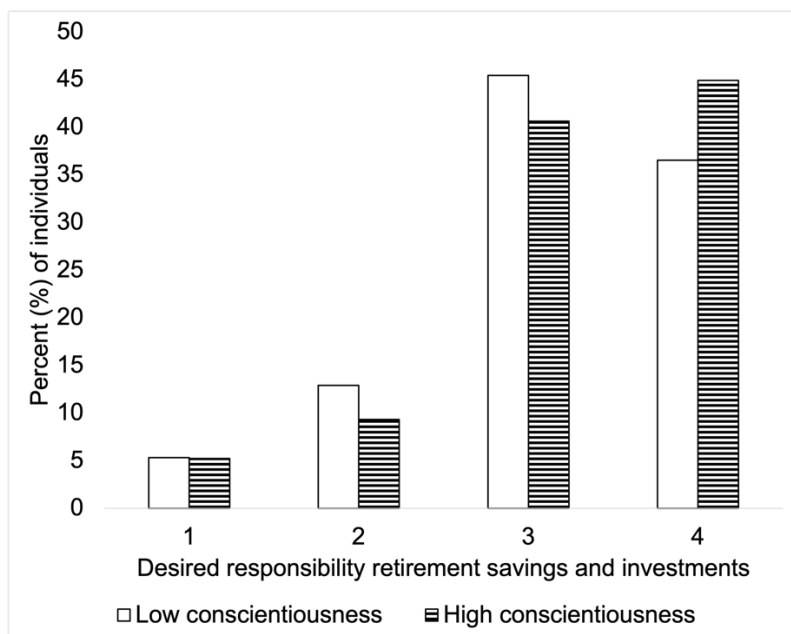


Figure 5. Noncognitive abilities and desired retirement responsibility

Note: This figure illustrates the percentage of individuals indicating various levels of desired retirement responsibility, ranging from minimal planning (level 1) to extensive planning (level 4). The left panel presents desired retirement responsibility for individuals with below-median conscientiousness scores, while the right panel depicts retirement desired retirement responsibility for those with above-median conscientiousness scores. The data are sourced from the LISS panel spanning the period 2008-2017.

Source: Authors' calculations; see text.

Table 1. Noncognitive abilities and financial choices

	Financial wealth buffer	Savings	Unsecured debt
	(1)	(2)	(3)
<i>Conscientiousness</i>	0.217*** (0.037)	0.045*** (0.004)	-0.035*** (0.005)
Controls	Yes	Yes	Yes
N	24,306	47,918	10,695

Note: This table shows the results of an OLS regression (Column 1) and probit regressions (Columns 2 and 3). In Column 1, the dependent variable is the log of financial wealth. In Column 2, the dependent variable is equal to 1 if the respondent consumes less than her income. In Column 3, the dependent variable is equal to 1 if the respondent has one or more of the following: a loan from a family member, debit card debt, credit card debt, a personal loan, a student loan, or some other unsecured loan. All models include a constant term and controls for risk aversion (lottery and self-reported), ambiguity aversion, numeracy, trust, optimism, financial literacy, agreeableness, openness, extraversion, male, children living at home, age, age squared, home ownership, education, partner, residence in a rural area, missing data dummies, and year dummies when indicated. The controls are suppressed for brevity. The table reports marginal effects. Standard errors are clustered by household and appear in parentheses. The data are sourced from the LISS panel spanning the period 2008-2017. * $p < .1$; ** $p < .05$; *** $p < .01$.

Source: Authors' calculations; see text.