

Discussion for session I- What Helps & Hinders Retirement Saving?

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Subjective Beliefs, Saving, and Spending for Retirement

Rawley Z Heimer

Summary and main findings

Retirement planning requires setting a target retirement age.

Classical economic models assume individuals make decisions based on rational expectations.

Behavioral economists consider psychological research and may deviate from relying solely on available data.

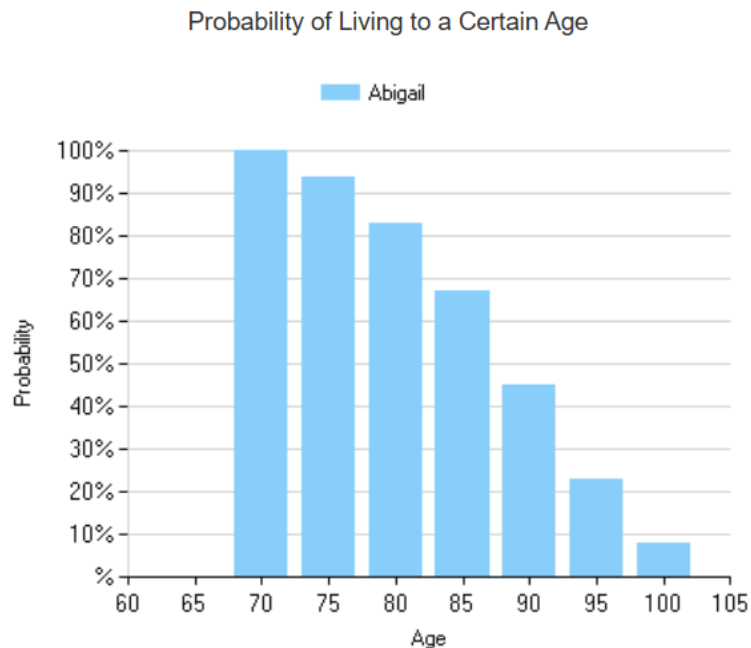
The paper focus on the finding that individuals while young over-estimate the probability of dying soon and when old, they over-estimate the probability of living very long, and it's consequences.

The paper finds that with subjective beliefs:

- consumption is higher when young resulting in less savings for retirement.
- Consumption is lower in retirement
- The difference in mortality beliefs affects the portfolio choices that people make.

Suggestion 1 – Do people anticipate an increase in survival probabilities?

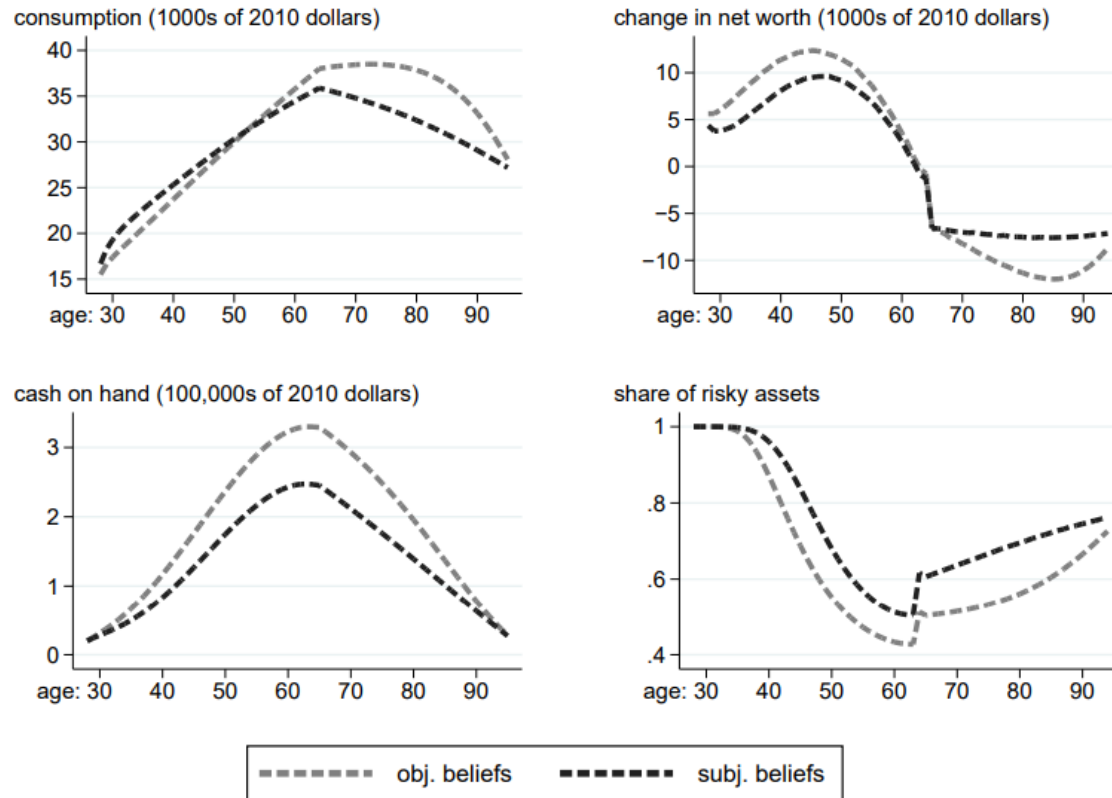
“The error in subjective beliefs flips as he gets older. A 70-year-old has approximately a 15% chance of surviving to 95, though she believes the probability is closer to 20%. Overall, the errors in beliefs about survival chances can be large. However, the size of the error depends on the subject’s age. “



Age	Abigail
65	N/A
70	100%
75	94%
80	83%
85	67%
90	45%
95	23%
100	8%

Source: Actuaries Longevity Illustrator - Welcome to the Actuaries Longevity Illustrator

Suggestion 2 – are people behaving according to subjective beliefs?

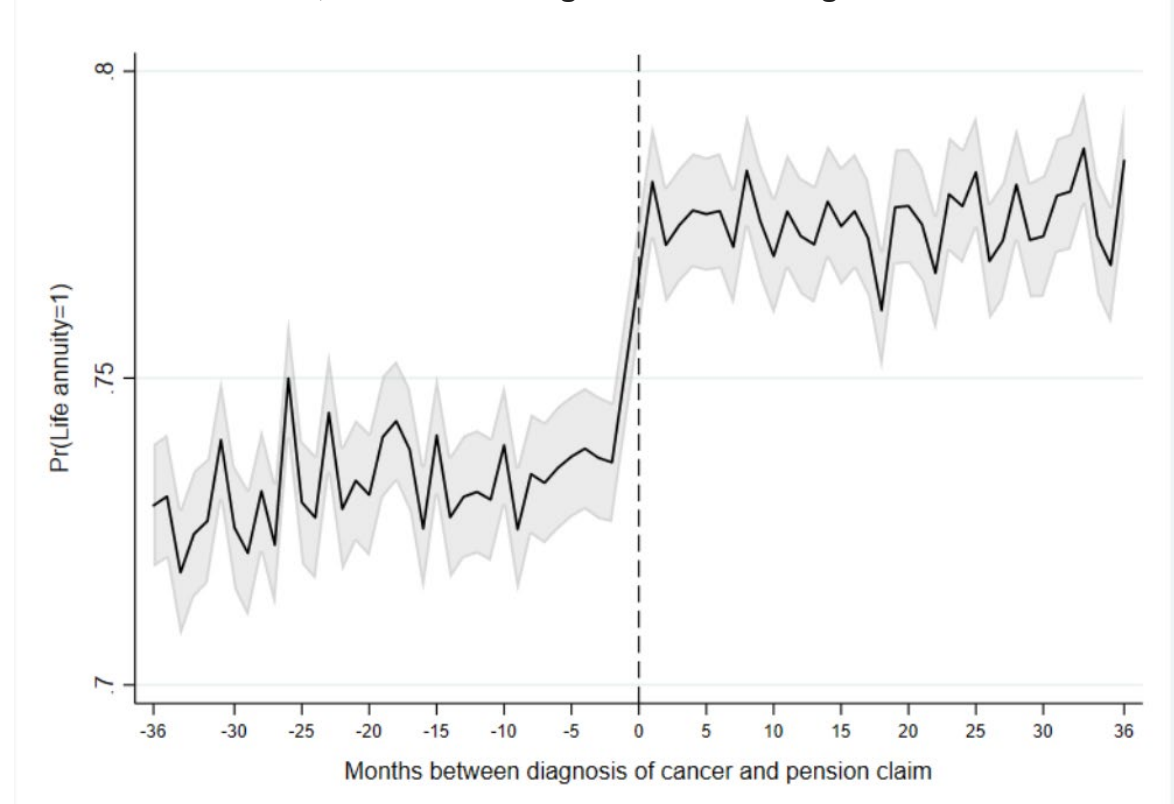


Source: Heimer R. (2024). **Subjective Beliefs, Saving, and Spending for Retirement**

Evidence from the Swedish life annuities market

- Individuals diagnosed with cancer before retirement show a mere ~4% decline in life annuity demand compared to those diagnosed after retirement.
- The decrease in demand for life annuities remains consistent regardless of when the diagnosis occurs relative to retirement age; those diagnosed 36 months prior to retirement exhibit similar reductions as those diagnosed 12 months before retirement.

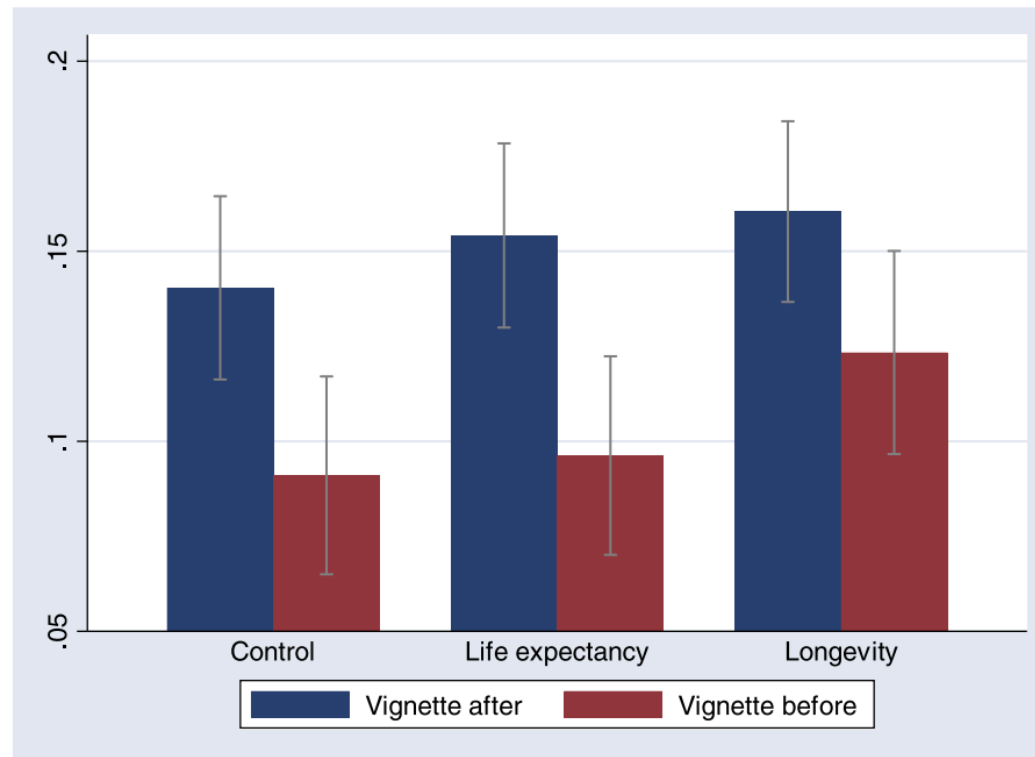
Demand for life annuities, individuals diagnosed with malign cancer before/after retirement



Source: Hagen, J., Hodor, M., & Hurwitz, A. (2024). **Health shocks, risk preferences and annuity choices** (No. 2024: 4). IFAU-Institute for Evaluation of Labour Market and Education Policy.

Suggestion 3 – Is it about life expectancy of longevity?

Mean Subjective vs. Objective survival Probabilities: by information provided and question order



Source: Hurwitz, A., Mitchell, O. S., & Sade, O. (2022). **Testing methods to enhance longevity awareness.** *Journal of Economic Behavior & Organization*, 204, 466-475.

Noncognitive Determinants of Retirement Saving Behavior

Gianpaolo Parise and Kim Peijnenburg

Summary and main findings

Various factors beyond cognitive abilities influence savings behaviors and effective retirement planning.

Measurement utilizing the Big Five personality traits, which include openness, conscientiousness, extraversion, agreeableness, and emotional stability, emerges as a widely accepted framework..

Conscientiousness encompasses traits such as being organized, practical, persistent, self disciplined, and achievement-oriented.

Data sourced from LISS includes 13,145 individuals randomly selected from the population register by Statistics Netherlands.

Summary and main findings – cont.

- Individuals with lower conscientiousness exhibit:
 - Reduced financial wealth buffer,
 - Lower likelihood of saving,
 - Higher likelihood of having unsecured debt.

Additionally, there exists:

- A negative correlation between noncognitive skills and the portion of financial wealth allocated to equity.
- A positive correlation between noncognitive skills and retirement planning.
- Conscientious individuals place higher value on increased flexibility in savings and investment decisions.

	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

Source: Parise G., & Peijnenburg K., (2024). **Noncognitive Determinants of Retirement Saving Behavior**

Suggestion 1 – Endogeneity?

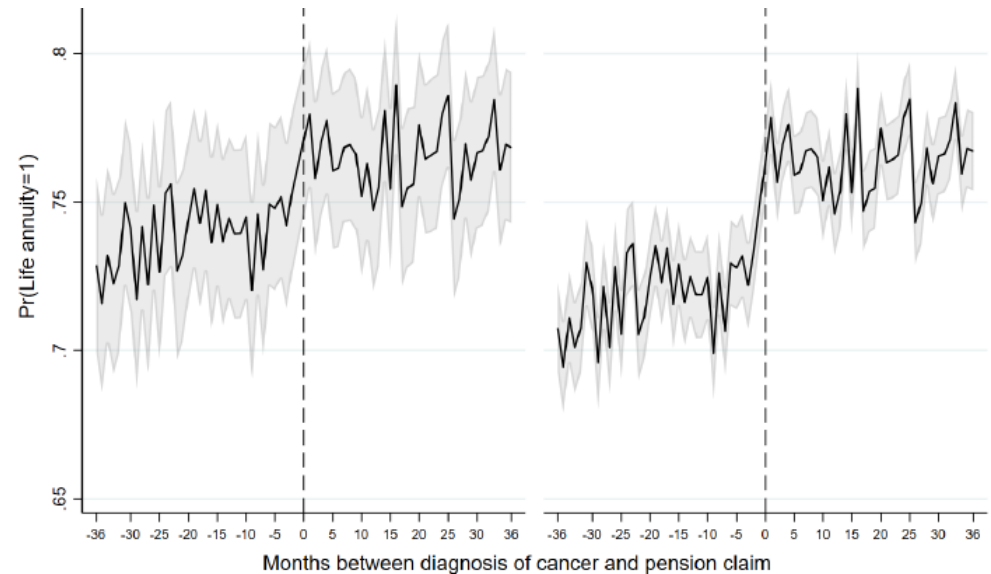
- Conscientiousness is associated with an increase in wealth buffers and savings, as well as a decrease in unsecured death.
- Do Individuals with higher savings and lower mortality rates may exhibit greater conscientiousness?
- Parise and Peijnenburg (2019) propose using childhood trauma as an instrument to measure noncognitive skills.
- In countries with a universal healthcare insurance (such as the Netherlands), **drug adherence** could be an additional IV - correlated with conscientiousness (Molloy, O'carroll, & Ferguson, 2014), unlikely to be correlated in such countries with savings when controlling for risk preferences.

Suggestion 2 – Exploring the interplay between cognitive and non cognitive skills – open questions

- Do literate individuals or those with higher IQs and greater noncognitive skills tend to make better decisions?
- Referring to Heimer's paper, do individuals with higher noncognitive skills exhibit different perceptions of longevity?
- Do information interventions yield more or less effective results among individuals with better noncognitive skills?
- Are individuals with stronger noncognitive skills more inclined to adhere to financial advice?

Some supporting evidence and a relation to the annuity puzzle

Demand for life annuities, individuals diagnosed with malign cancer before/after retirement, by drug adherence



Source: Calculations based on Hagen, J., Hodor, M., & Hurwitz, A. (2024).

The response to a shift in survival probabilities due to malignant cancer on the demand for annuities differs between individuals with high drug adherence (left) and low adherence (right).

Those with higher drug adherence buy insurance despite the change in survival probabilities.