Hungry Today, Happy Tomorrow?
Childhood Conditions and Subjective Wellbeing Later in Life

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Motivation

- **Childhood conditions** explain a large share of the variation in several outcomes later in life, including education, earnings and health
- There is a growing interest from policy makers and economists to understand the **determinants of happiness**, to go beyond considering "economic" measures of welfare only
- Nonetheless, little is known yet about the **effects of childhood conditions on late-life wellbeing** (Frijters et al., 2011, Layard et al., 2013)

Rescaling effects

- A problem with self-reported wellbeing data is that **people use subjective scales to report life satisfaction** (Deaton, 2008)
  - Individuals compare their situation with a *subjective benchmark*, that is assumed to depend mainly on one's past experiences
  - **Satisfaction treadmill**: by changing *aspirations* towards what satisfaction with life means, life events shift the subjective reference points used to evaluate wellbeing (Kahneman, 1999, Frederick, 2007)
- Limited empirical evidence on the **effects of childhood conditions on subjective reference points** is available to date

This paper

I study the effect of **exposure to hunger episodes in childhood** on **subjective wellbeing later in life**, using European data from SHARE

- Does childhood starvation affect the scale people use to report life satisfaction?
- Does exposure to hunger in infancy have a long-reach onto late-life wellbeing?

Subjective reporting scales are modelled through **anchoring vignettes**
Causal interpretation relies on **selection on observables**, i.e., on controlling for a wide set of relevant **childhood covariates** that are available in SHARE.

Anchoring vignettes

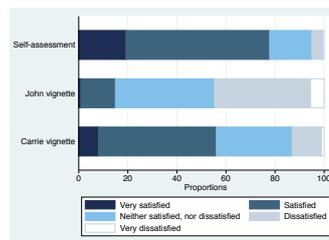How satisfied are you with your life in general?

Very Satisfied	Satisfied	Neither satisfied Nor dissatisfied	Dissatisfied	Very Dissatisfied
□₁	□₂	□₃	□₄	□₅

John is 63 years old. His wife died 2 years ago and he still spends a lot of time thinking about her. He has 4 children and 10 grandchildren who visit him regularly. John can make ends meet but has no money for extras such as expensive gifts to his grandchildren. He has had to stop working recently due to heart problems. He gets tired easily. Otherwise, he has no serious health conditions.

How satisfied with his life do you think John is?

Carry is 72 years old and a widow. Her total after tax income is about € 1,100 per month. She owns the house she lives in and has a large circle of friends. She plays bridge twice a week and goes on vacation regularly with some friends. Lately she has been suffering from arthritis, which makes working in the house and garden painful.

How satisfied with his life do you think Carry is?

The Hopit model (King et al., 2004)

Latent wellbeing Y_i^* is continuous and unobserved. It depends on covariates X_i

$$Y_i^* = X_i\beta + \varepsilon_i, \ \varepsilon_i \sim N(0,1)$$

We instead observe a discrete and ***self-reported*** wellbeing measure Y_i

$$Y_i = j \text{ if } \xi_i^{j-1} < Y_i^* \leq \xi_i^j, j = 1, \ldots, 5$$

The reporting thresholds ξ_i are individual specific, and also depend on X_i

$$\xi_i^0 = -\infty, \xi_i^5 = +\infty$$
$$\xi_i^1 = X_i\gamma^1 + \eta_i, \eta_i \sim N(0, \sigma_\eta)$$
$$\xi_i^j = \xi_i^{j-1} + exp(X_i\gamma^j), j = 2, 3, 4$$

Availability of *anchoring vignettes* allows identification of the threshold equations

$$Z_{ik}^* = \theta_k + \varepsilon_{ik}, \ \varepsilon_{ik} \sim N(0, \sigma_v)$$
$$Z_{ik} = j \text{ if } \xi_i^{j-1} < Z_{ik}^* \leq \xi_i^j, j = 1, \ldots, 5$$

Identification of the joint model requires **two assumptions:**

1. **Vignette Equivalence (VE)**
   No differences across respondents in the perception of the wellbeing level described by each vignette

2. **Response Consistency (RC)**
   Same reporting scale used for self-assessment and vignette evaluation

A thorough discussion on their validity is presented in the paper

The SHARE data

SHARE is a longitudinal survey that collects data on the population aged 50+ in several European countries: Sweden, the Netherlands, Denmark, Germany, Belgium, France, Poland, Czech Republic, Spain, Italy, Greece

- **Anchoring vignettes** and **adulthood variables**: wave 2 data, collected in 2006
- **Childhood conditions**: retrospective data from wave 3, SHARELIFE, collected in 2008. State-of-the-art elicitation methods, based on Life History Calendars, greatly reduce **recall bias**

Hunger episodes

Definition: Having experienced a hunger episode that started before age 15. From the SHARE questionnaire:

- Looking back on your life, was there a period during which you suffered from hunger?
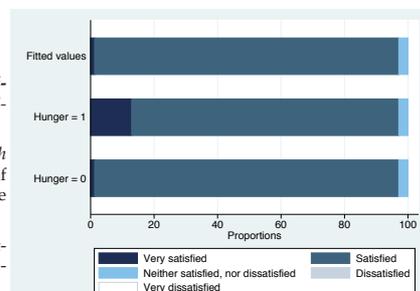- When did this period of hunger start/stop?
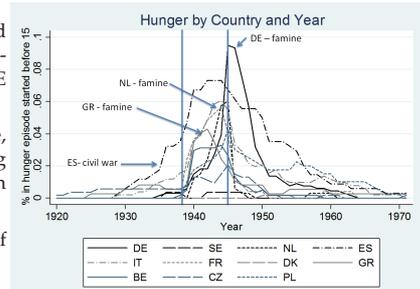
Main empirical results

	(1) Baseline	(2) Hopit	(3) Cut-off 1	(4) Cut-off 2	(5) Cut-off 3	(6) Cut-off 4
Hunger	-0.281***	-0.353***	0.0545	0.0400	-0.0948	-0.195***
	(0.0781)	(0.0929)	(0.109)	(0.0716)	(0.0591)	(0.0553)
Observations	4,950					

How relevant is reporting heterogeneity?

Counterfactual simulations

- Keep all variables in the **self-assessment equation** at the *original levels*
- In the **threshold equations**, *switch between presence and absence* of hunger for everyone, and leave everything else unaltered
- Report the distribution of life satisfaction in the two counterfactuals

Robustness checks

- Is the result due to **positive dynamic selection**?
  Life satisfaction and anchoring vignette responses do not determine survival across waves in SHARE. Furthermore, results hold also when I consider only the youngest in the sample, among whom dynamic selection should be less pronounced. Finally, respondents' parents who suffered of mental health issues are no more likely to survive shorter after exposure to hunger
- Is this the effect of **late-life confounders**?
  Results are unchanged when a large battery of late-life controls are included
- Results are robust to selection of different subsets of cohorts and countries

Conclusions

- Individuals exposed to hunger in childhood adopt **more positive subjective scales** to report life satisfaction
- This finding brings support to the **satisfaction treadmill model** of hedonic adaptation: subjective reference points depend on past experiences, that shape aspirations
- There is a long run negative scarring effect of hunger on life satisfaction, that would be **biased downwards** if one fails to consider the positive hunger effects on reporting scales. Hence, in presence of **rescaling effects**, self-reported happiness measures may **only partially reflect policy impacts**