

Supplemental Materials (SM)

Identifying robust correlates of risk preference: A systematic approach using
specification curve analysis

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1 Extend methods and materials

1.1 Wording of the propensity measures

The self-reported propensity measures were collected in the German Socio-Economic Panel (SOEP; see <https://paneldata.org/soep-is/inst/soep-is-2014-f/Q70> for the item measuring general risk preference, and <https://paneldata.org/soep-is/inst/soep-is-2014-f/Q71> for the various items measuring domain-specific risk preference). Below we provide our own English translation of these items, as the translation in the official documentation does not entirely match the original German wording. All responses were provided on an 11-point scale ranging from 0 = “not at all willing to take risks” to 10 = “very willing to take risks”.

General risk preference:

“How do you evaluate yourself? Are you generally a person who is willing to take risks or do you try to avoid risks?”

Domain-specific risk preference:

“One can behave differently in different domains. How would you evaluate your willingness to take risks concerning the following areas? How about...”

- when driving?
- concerning financial investments?
- concerning recreation and sports?
- at your job?
- concerning your health?
- concerning your trust in strangers?

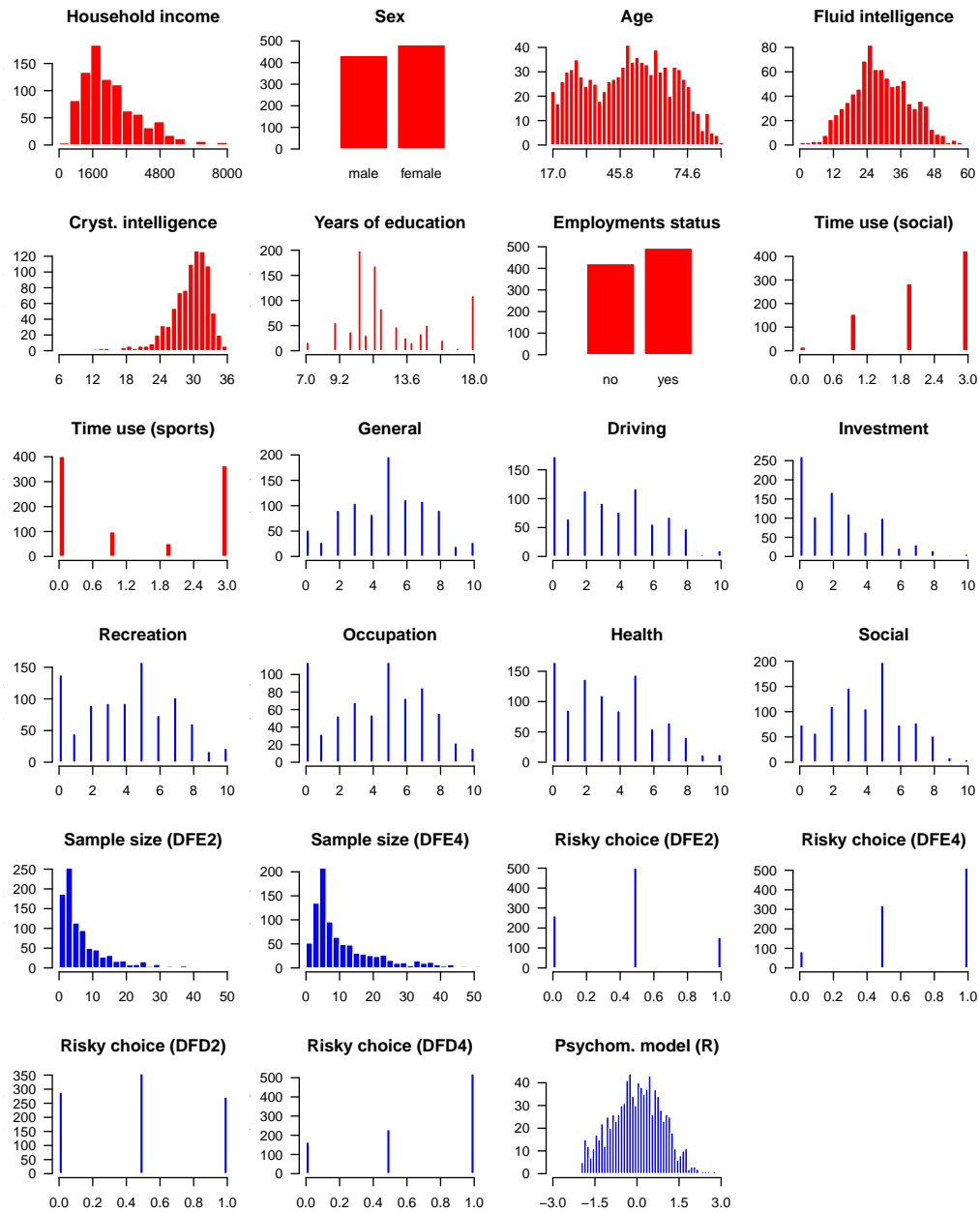


Figure S1: Distributions of independent variables (red) and dependent variables (blue).

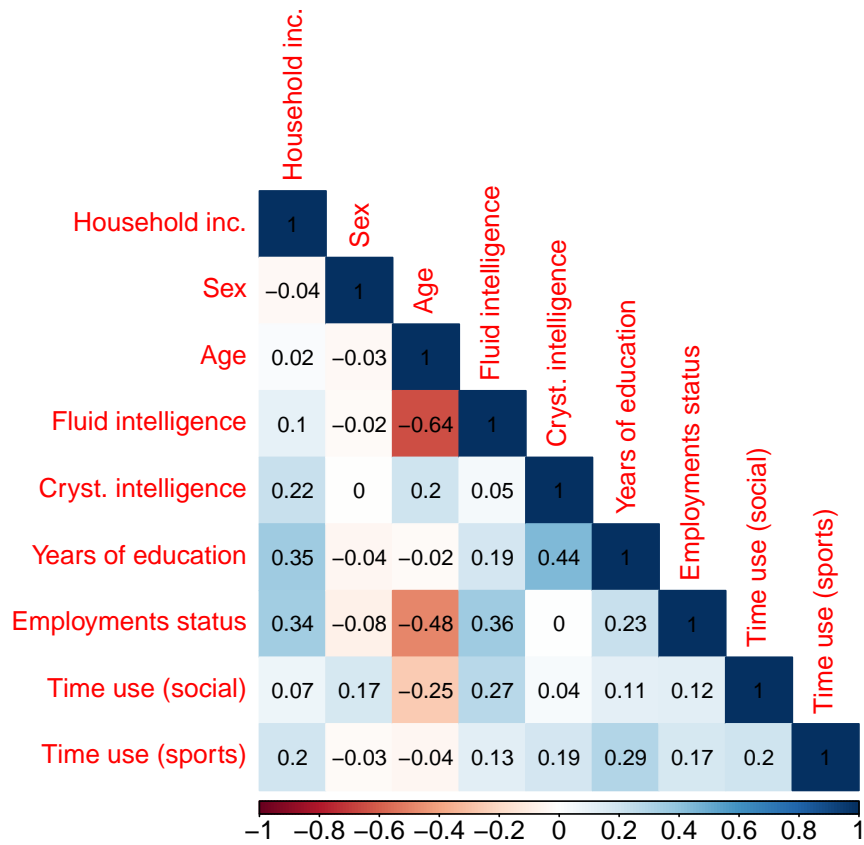


Figure S2: Correlations between independent variables. The reported correlations are Pearson's correlations between continuous variables, polyserial correlations between continuous and categorical variables, and polychoric correlations between categorical variables.

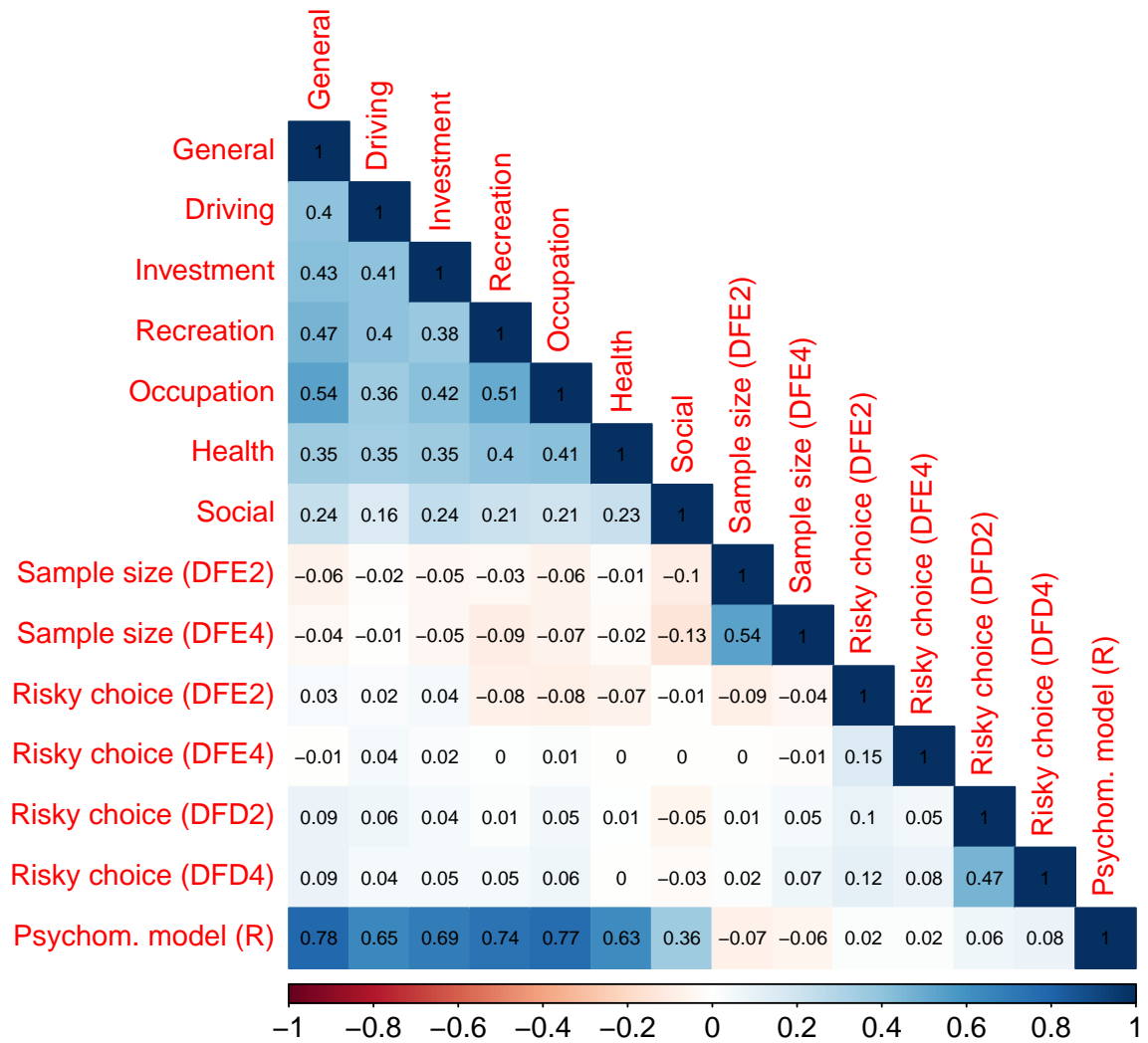


Figure S3: Correlations between dependent variables.

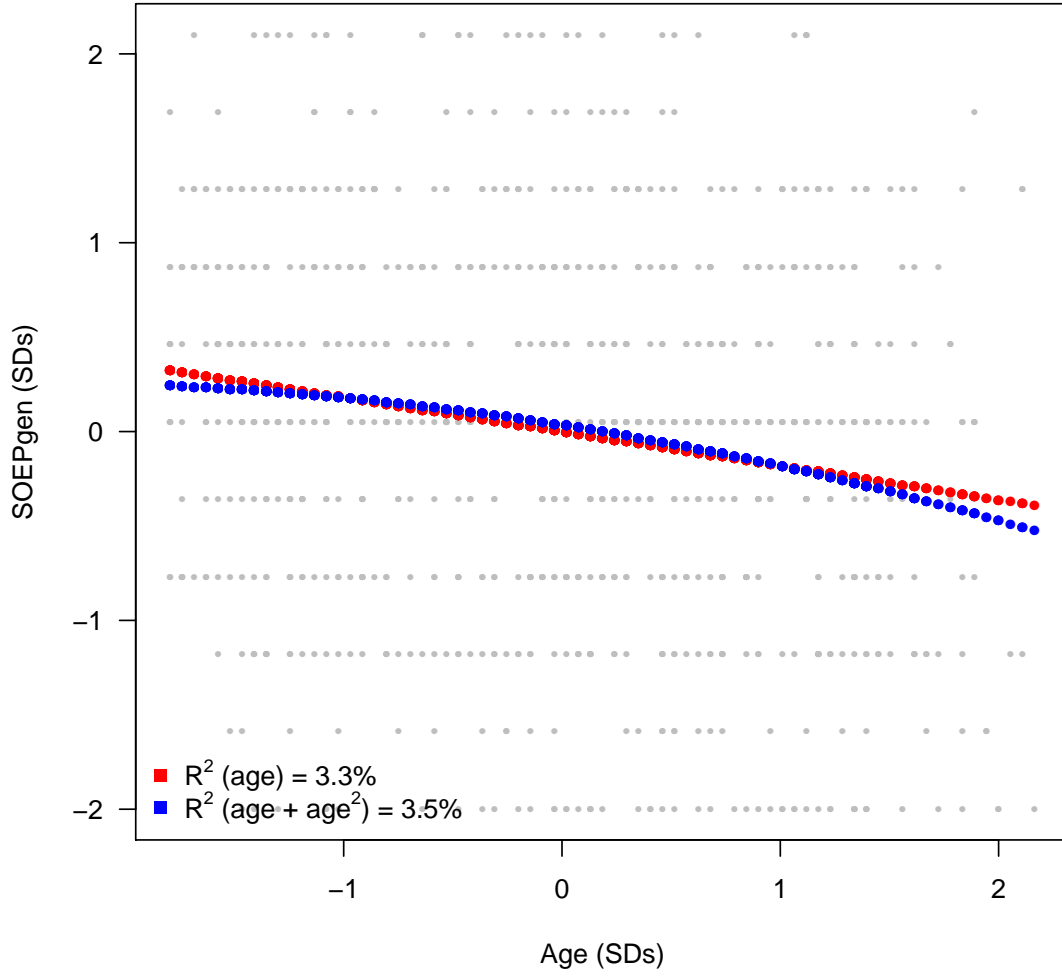


Figure S4: Comparison of models implementing linear vs. quadratic effects of age. Age might be expected to show curvilinear associations with risk preference, thus potentially calling for models implementing quadratic or cubic terms. To explore this possibility, we ran a pre-analysis before implementing the full specification curve analyses: using the SOEP item measuring general risk preference as the dependent variable, we compared a model implementing only a linear effect of age with a model additionally implementing a quadratic effect of age. The more complex model including the quadratic term achieved only a slightly better fit of the data (3.3% vs. 3.5% explained variance). Based on this analysis, we only modeled linear relationships in the full specification curve analyses to reduce the number of model specifications.

Decisions from description (DFD): Choice

Lottery 1 / 4

Final choice:
Which box do you want to choose?

**10% 32 €
90% 0 €**

100% 3 €

Decisions from experience (DFE): Sampling / exploration phase

Lottery 4 / 4

Click as long on the boxes until you can make a
final decision between the boxes.

0 €

FINAL CHOICE

Decisions from experience (DFE): Choice

Lottery 4 / 4

Final choice:
Which box do you want to choose?

Figure S5: Screenshots of the two behavioral tasks.

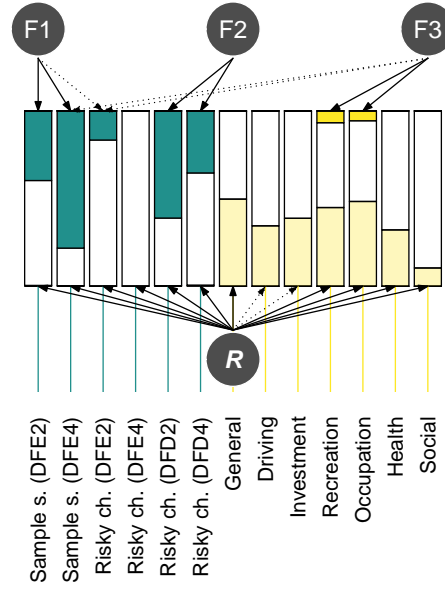


Figure S6: Psychometric model. The implemented bifactor model includes a general factor of risk preference (R) as well as three specific, orthogonal factors. The colored bars indicate the proportion of variance that each factor accounts for in the different measures.

Table S1: Socio-demographic variables		
N		916
Sex	male	433 (47.3%)
	female	483 (52.7%)
Age		M = 49.63 (SD = 18.19, Range = 17–89)
Employed	no	422 (46.1%)
	yes	494 (53.9%)
Household income		M = 2606.38 (SD = 1542.26, Range = 389–15000)
Education (years)		M = 12.41 (SD = 2.73, Range = 7–18)

Table S2: Decision problems used in the behavioral tasks

	Options	Option EV=3.4	Option EV=3.2	Option EV=3	Option EV=2.8
Decision problem 1	2		32 (.1) vs. 0 (.9)	3 (1)	
Decision problem 2	4	68 (.05 vs. 0 (.95)	32 (.1) vs. 0 (.9)	3 (1)	4 (.7) vs. 0 (.3)
Decision problem 3	2		4 (.8) vs. 0 (.2)	3 (1)	
Decision problem 4	4	34 (.1 vs. 0 (.9)	4 (.8) vs. 0 (.2)	3 (1)	4 (.7) vs. 0 (.3)