

Is susceptibility to default effects associated with age? (Online 2020) (#43302)

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1) Have any data been collected for this study already?

No, no data have been collected for this study yet.

2) What's the main question being asked or hypothesis being tested in this study?

This study evaluates whether susceptibility to default effects (DE) increases with age. To this end, participants complete two DE scenarios, one in an opt-in condition, and one in an opt-out condition. Scenarios involve the selection of premium amenities for an apartment and a vacation home rental and each scenario requires the same number of selections to be made.

Hypothesis 1: Participants will exhibit DE and select fewer premium amenities in the opt-in condition than in the opt-out condition.

Hypothesis 2: Higher age is associated with a stronger tendency towards DE.

Question 1: To what extent do known determinants of DE predict susceptibility to DE? These determinants are: Endorsement, endowment, ease, experience, importance of choice, and post-decisional affect (valence and activation level).

Question 2: To what extent do other demographic, personality, socioemotional, or cognitive covariates predict susceptibility to DE?

3) Describe the key dependent variable(s) specifying how they will be measured.

Age (one continuous variable)

Number of amenities chosen in the vacation scenario: one continuous variable, 0-15.

Number of amenities chosen in the apartment scenario: one continuous variable, 0-15.

Endorsement, ease, endowment, experience, importance of choice, post-decisional affect (valence) and affect (activation): Each assessed using single items and measured on 7-point Likert scales, with higher scores signifying stronger perceived endorsement, ease, felt endowment, more experience, stronger perceived importance of choice, more positive affect, and higher activation level, respectively.

Other covariates: Listed under 8).

4) How many and which conditions will participants be assigned to?

Each participant will be assigned to one opt-in and one opt-out DE scenario. The order of scenarios and which scenario (i.e., apartment vs. vacation home rental) is administered as an opt-in or opt-out condition will be randomized and counter-balanced across participants.

5) Specify exactly which analyses you will conduct to examine the main question/hypothesis.

Hypothesis 1 will be assessed using two separate tests for the vacation and apartment scenario, each test comparing participants in the opt-in condition to participants in the opt-out condition of the same scenario ($\alpha = .025$). If data meet the requirements of parametric analyses, we will conduct independent samples t-tests. If not, we will conduct Wilcoxon rank-sum tests for two independent samples.

To assess Hypothesis 2, Question 1, and Question 2, we will rely on a series of linear mixed models (or generalized linear mixed models in the case that the conditions of parametric testing are not met). Each model will contain age, condition (2 levels: opt-in versus opt-out) as a within-subject fixed factor, scenario (2 levels: apartment scenario was opt-out vs. vacation scenario was opt-out) as a between-subject fixed factor, and order (2 levels: apartment scenario was first vs. vacation scenario was first) as a between-subject fixed factor. The dependent variables will be the number of amenities chosen.

Hypothesis 2 will be assessed using a linear mixed model (Model A) containing age as a fixed factor, as well as condition, scenario, and order (see above). In addition, Model A will contain the interaction effects age x condition, age x scenario, and age x order. The hypothesis that age is associated with a greater susceptibility to DE will be tested via the age x condition interaction. If interaction effects prove significant, they will also be incorporated into the following models (see below). If not, they will be omitted from further models.

Question 1 will be assessed using a linear mixed model (Model B) containing all variables used in Model A (with non-significant interaction effects omitted) as well as known determinants of DE susceptibility (endorsement, ease, endowment, experience, importance of choice, post-decisional affect).

Question 2: A linear mixed model (Model C) containing all variables used in Model A (with non-significant interaction effects omitted) as well as variables

assessing demographic background, socioemotional and health variables, personality variables, and cognitive variables (see 8).

6) Describe exactly how outliers will be defined and handled, and your precise rule(s) for excluding observations.

We winsorize all univariate outliers to values equaling z-scores of +/- 3.30, 3.31, etc. Multivariate outliers are cases where Mahalanobis Distance = $X^2 < .001$.

Participants are excluded if age is missing, below 18, over 120, or does not match birth year (1 year error margin). Participants must pass attention checks to be included: "Please select "Fair" to show you are paying attention:" and "At the FUN IN THE SUN music festival, everybody gets a door prize. Out of 1,000 visitors, how many are expected to get a door prize?"

7) How many observations will be collected or what will determine sample size? No need to justify decision, but be precise about exactly how the number will be determined.

We aim to collect data from 500 participants. 450 participants will be recruited through the Qualtrics.com Recruitment Services (150n 18-35 years, 150n 36-65 years, 150n 66+ years). 33 participants will be recruited through the Cornell University LEEDR Lab SONA panel. 17 participants will be recruited through the Cornell University Healthy Aging Lab contact list. Recruitment will be selective to yield comparable gender and race/ethnicity composition across age groups.

8) Anything else you would like to pre-register? (e.g., secondary analyses, variables collected for exploratory purposes, unusual analyses planned?)

In the context of Hypothesis 2, we will examine the possibility that the relationship between age and susceptibility to DE is curvilinear.

We will report means and standard deviations for the following covariates, as well as their correlation with age.

Demographics

- Gender (1 dummy-coded variable: 0 = Male, 1 = Female)
- Race/Ethnicity (1 dummy-coded : 0 = Non-Hispanic White, 1 = Other)
- Income (1 variable indexed on a 1-7 scale)
- Education (1 variable indexed on a 1-5 scale)
- Political orientation (0 democrat, 1 republican, 2 independent, 3 other)

Personality

- Neuroticism (2 items, measured on 5-point Likert scales, averaged)
- Agreeableness (2 items, measured on 5-point Likert scales, averaged)
- Openness (2 items, measured on 5-point Likert scales, averaged)
- Extraversion (2 items, measured on 5-point Likert scales, averaged)
- Conscientiousness (2 items, measured on 5-point Likert scales, averaged)

Socioemotional and health variables

- Subjective physical health (4 variables rated on a 5-point Likert scale)
- Subjective emotional health (4 variables rated on a 5-point Likert scale)
- Incidental Affect (1 item to measure valence of affect, 1 item to measure activation level, both variables are measured on 7-point Likert scales)
- Self-continuity (6 items measuring perceived continuity with past and future self at 1, 5, and 10 years)
- Life position (1 continuous variable, 0-100)
- Focus on affect versus information in decision making (1 continuous variable, 0-100)
- Focus on growth versus maintenance goals (1 continuous variable, 0-100)

Cognition

- Subjective memory (1 item measured on a 5-point Likert scale)
- Subjective learning ability (1 item measured on a 5-point Likert scale) Cognitive reflection ability (3 items summed up into 1 variable, with 0-3 correct responses)
- Vocabulary (12 items; 0-12 correct answers)
- Numeracy (3 items summed up into 1 variable, with 0-3 correct responses)