

PREVIEW: "The Facets of Altruistic Behavior"

Author(s)

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Submission

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

No.

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

1. We will model self-reported altruistic behavioral traits as three mildly interrelated factors: costly rewarding (help-giving), norm-abiding costly punishment (altruistic punishment), and norm-surpassing confrontation (moral/civil courage).

2. We predict that altruistic punishment (AP) is composed of two subdimensions depending on the underlying motives: to defend fairness among ingroup members (defend), or to retaliate for free riding and norm deviance (retal). We predict that eliminating the AP factor in the overall model in favor of a two-factorial solution in which "defend" items load on the help-giving factor, and "retal" items on the moral/civil courage factor, will render a better model fit than the original three-factorial solution.

3. We predict that in a civil-democratic society, moral courage and civil courage motivate the same class of behaviors, and will therefore be highly correlated in our sample.

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

- 64 items of a self-report questionnaire on altruistic behaviors with a 6-point Likert scale
- 5 meta-questions to assess survey motivation ,
- 6 questions on social desirability (KSE-G according to Kemper et al., 2012)

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

N/A

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

1. Classical test-theoretical item analysis based on item characteristics (proportions).

2. Exploratory Structural Equation Modeling (ESEM) with two anchor items per subscale. These items will be selected based on scale typicality ratings of three experts. All other items will be allowed to load freely on the three factors.

3. We will compare the original three factor solution to a revised two-factor solution in which no AP items are predefined, and all AP items are allowed to load freely on the two other factors.

4. Should neither solution be satisfactory (RMSEA $<.06$, SRMR $<.07$, CFI $>.95$), exploratory factor analysis with direct oblimin rotation will be performed to investigate the factorial structure found empirically.

5. Item selection will be performed with an algorithmic approach based on ant-colony optimization as implemented in the stuart-Package for R. If a solution providing adequate fit (RMSEA $<.06$, SRMR $<.07$, CFI $>.95$) of the measurement model for the final scale cannot be found under the restrictions imposed to ensure content validity, replacement items will be generated and the questionnaire retested in a sample of N=150 participants.

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

1. We will exclude participants who have completed the questionnaire in less than 5 minutes.
2. We will exclude participants who answer at least one of our two attention check questions incorrectly.
3. We will exclude participants with a sum of 5 points or less on the meta-items indicating low motivation and little understanding of the questionnaire.

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 will stop collecting data when 400 participants have completed the original questionnaire.

8) Anything else you would like to pre-register?

(e.g., secondary analyses, variables collected for exploratory purposes, unusual analyses planned?)

1. We will compare the stuart approach to item selection with a traditional approach based on factor loadings and traditional item qualities (reliability, difficulty, variability).
2. As for additional variables, three covariates will be taken indicating participant's customary monetary and temporal resources on the one hand and their social responsibility (e.g., childcare) on the other. We will analyze whether the subscales are differentially susceptible to the influence of these variables. We hypothesize that helping behavior increases with available resources whereas moral/civil courage decreases with social responsibility.
3. We will determine the influence of social desirability (according to the KSE-G scale) on the subscales. The scale measures overstatement of positive and understatement of negative qualities.
4. We will explore the effect of age, sex, degree of education, and voting behavior on the altruistic behavior subscale scores.