

Supplemental Materials

Accompanying the manuscript “Age Differences in Prosociality Across the Adult Lifespan: A Meta-Analysis”

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Preregistration, literature search, coding, and included studies

Table S1

Differences Between Preregistration and Current Meta-Analysis

	PROSPERO preregistration	Current meta-analysis
Searches	<ol style="list-style-type: none"> 1. Systematic literature search via Web of Science, PubMed and PsychInfo. 2. Screening reference lists of all relevant articles 3. Contacting all relevant authors for further unpublished manuscripts and data 4. Request via professional listserv 	<ol style="list-style-type: none"> 1. Systematic literature search via Web of Science, PubMed and PsychInfo. <ul style="list-style-type: none"> - Beside studies reporting adult age effects of prosociality in their initial published article, <i>studies reporting an eligible prosocial measure and age range were further considered for inclusion.</i> 2. Screening reference lists of all relevant articles 3. Contacting all relevant authors for further unpublished manuscripts and data 4. Request via professional listserv 5. <i>Screening reference lists of all meta-analyses and literature reviews capturing topics relevant to our research question, identified through the systematic literature search</i> 6. <i>Screening all articles of a special issue from the journal Psychology and Aging ('Prosociality in Adult Development and Aging', Bailey et al., 2021)</i> 7. <i>Backward- and forward reference search with respect to one recently published meta-analysis (Sparrow et al., 2021).</i>

Type of study to be included	<ol style="list-style-type: none"> 1. Representative population-based studies, which contained a measure of the statistical association between prosociality and age. 2. Interventions studies and studies that are not representative for the population will be excluded (except healthy controls) 	<ol style="list-style-type: none"> 1. Representative population-based studies, which contained a measure of the statistical association between prosociality and age. 2. Interventions studies and studies that are not representative for the population will be excluded (except healthy controls) 3. <i>Studies reporting an eligible prosocial measure whenever age in an eligible range was reported (e.g., as part of the sample description) and authors were willing to send us the specific effect sizes (or data openly available)</i>
Condition or domain being studies	Prosociality	Prosociality
Participants/population	Representative population-based samples of healthy adults, aged 18-101 (both, age as a continuous measure or categorized into different age groups)	Representative population-based samples of healthy adults, aged 18-101 (both, age as a continuous measure or categorized into different age groups)
Intervention(s), exposure(s)	<p>Observational studies, no intervention studies (except RTCS with data for healthy controls)</p> <p>Exposure = prosociality, which was measured (A) in an observational experiment research design, or (B) validated self-reported measurement of prosociality were used</p>	<p>Observational studies, no intervention studies (except RCTS with data for healthy controls)</p> <p>Exposure = prosociality, which was measured (A) in an observational experiment research design, or (B) validated self-reported measurement of prosociality were used</p>
Comparator(s)/control	<p>(A) Age group comparison: Two or more different age-groups</p> <p>(B) Dimensional vies across the adult lifespan (age correlations)</p>	<p>(A) Age group comparison: Two or more different age-groups</p> <p>(B) Dimensional view across the adult lifespan (age correlations for a linear age effect)</p>

(C) *Explorative analysis: Dimensional view across the adult lifespan (standardized beta coefficients for quadratic age effects)*

Context	All population-based studies conducted anywhere in the world	All population-based studies conducted anywhere in the world
Main outcome(s)	Age-related differences or age correlations with respect to prosociality across the adult lifespan (18-101 years)	Age-group differences, linear, and <i>quadratic age effects</i> with respect to prosociality across the adult lifespan (18-101 years)
Measures of effect	<ol style="list-style-type: none"> 1. Age group comparison: Cohen's d (positive values represent higher prosociality by older adults) 2. For correlations with age: Pearson product-moment correlation coefficients 	<ol style="list-style-type: none"> 1. Age group comparison: <i>Bias corrected standardized mean differences hedge's g</i> (positive values represent higher prosociality by older adults) 2. For linear age effects: <i>Different correlation coefficients (Pearson's, Spearman, Biserial, and Point-Biserial)</i> 3. <i>For quadratic age effects: Standardized Beta-Coefficients</i>
Additional outcome(s)	None	None
Measures of effect	None	None
Data extraction (selection and coding)	Three independent reviewers will screen title and abstract, after duplicates were removed. Full text will be reviewed from two reviewers for final inclusion. Full-text articles with uncertain eligibility will be discussed by the reviewers until consensus is reached. Inter-rater reliability will be analyzed. Process is done with Zotero.	<i>At least two independent reviewers</i> out of a pool of three reviewers will screen title and abstract, after duplicates were removed. Full text will be reviewed from two reviewers for final inclusion. Full-text articles with uncertain eligibility will be discussed by the reviewers until consensus is reached (<i>if not</i>

The following information will be extracted:

1. Basic information (lab/name of PI, publication date, country of data collection)
2. Sample characteristics (sample size, age, gender, special characteristics)
3. Study design (measurement (task vs. self-reported), stimuli, single or multiple data points, special characteristics)
4. Information for the risk of bias assessment will be extracted
5. In case of missing data, the authors will be contacted

possible another independent reviewer will be included). Inter-rater reliability will be analyzed. Process is done with Zotero

The following information will be extracted:

1. Basic information (*name of first author*, publication date, *country of institution*)
2. Sample characteristics (sample size, *age range*, *mean age + SD*, gender (*number of females*), *nationality*, special characteristics)
3. Study design (measurement (task vs. self-reported), *exact description of the measure*, *behavior-contingent incentive vs. hypothetical*, *one-shot vs. repeated interaction*, *published vs. unpublished effect*, *lab vs. lab in field vs. online setting*, *active vs. passive role played*, *monetary vs. non-monetary incentive*, *deception vs. no deception*, *feedback vs. no feedback*, *group size*, *information about interaction partner*, *cognitive functioning*.)
4. In case of missing data, the authors will be contacted

Risk of bias (quality) assessment

We will assess the risk of small study bias using funnel plots and Egger's Test. ROBINS-I tool (J. Sterne et al., 2022) will be used as a risk of bias assessment.

To investigate the potential effect of publication bias, we carried out *the rank correlation test* (Begg & Mazumdar, 1994), the regression test (J. A. C. Sterne & Egger, 2005), as well as funnel plots to examine all meta-analysis for publication bias.

Strategy for data synthesis

To compute effect sizes quantitative statistical information will be extracted from the eligible articles. If no effect sizes are reported

To compute effect sizes quantitative statistical information will be extracted from the eligible articles. If no effect sizes are reported and after an attempt to contact the specific authors,

and after an attempt to contact the specific authors, they will be calculated from the reported statistics and converted, if possible. We will use random-effect meta-analysis. The primary analysis will examine the association between prosociality and age/age group. Further analysis will examine the relationship between prosociality and age/age group for different type of measures and stimuli. We aim to examine the relation between age-related differences in prosociality and cognitive functioning as a moderator variable. Statistical heterogeneity will be examined and quantified use the Q and I² statistics.

they will be calculated from the reported statistics and/or *openly available datasets* and converted, if possible. We will use random-effect meta-analysis. The primary analysis will examine the association between prosociality and age (*linear and quadratic*)/age group. *Different meta-regressions were carried out for: sample size, mean age, year, sex composition (i.e., percentage female), publication status, applied incentive, interaction, measure type and setting.* Further analysis will examine the relationship between prosociality and age (*linear and quadratic*)/age group for different type of measures as sub-analysis. Statistical heterogeneity will be examined and quantified use the Q, I², and *t*² statistics.

No relationships between age-related differences in prosociality and all other moderators listed in the row 'data extraction (selection and coding)' and initially planned as moderator variable could be examined, as not enough information were reported in the corresponding papers and thus too little data could be found.

Analysis of subgroups or subsets Sub analyses by age group, task, and stimuli will be conducted to investigate age-related differences, or whether task properties or specific stimuli of the task moderate effect sizes. If enough data are available associations with the covariate cognitive functioning will be calculated.

We further set up measure-specific sub-meta-analyses, to test whether age effects on prosociality vary as a function of different measures of prosociality applied in the original studies.

Note. Italic font indicates differences in the current meta-analysis compared to the preregistration.

Key Search Parameters

The following key search parameters reflecting prosocial behavior and related constructs were used for the literature search:

prosocial, “pro-social”, “pro social”, prosociality, “pro-sociality”, altruism, altruistic, altruistically, “social decision-making”, “social decision making”, charity, charitable, “prisoner dilemma”, “prisoner’s dilemma”, “prisoners dilemma”, “dictator game”, “ultimatum game”, “trust game”.

Considering that studies should cover the adult lifespan, we also included the following keywords:

adulthood, ageing, aging, “adult development”, “adult lifespan”, “adult life-span”, “adult life span”, “lifespan”, “life-span”, “life span”, “age-related”, “age related”, “age difference”, “age differences”, “age effects”, “age effect”, old, and older.

Table S2*Overview of All Studies Included in MA_{behav}*

No.	Study/Sample	Meta-Analysis	<i>n</i>	Age range	Age <i>M</i> (<i>SD</i>)	<i>n</i> YA	Age range YA	<i>n</i> MA	Age range MA	<i>n</i> OA	Age range OA
1	Alonso-Ferres et al. (2020), study 2	MA _{cont-lin} , MA _{groups}	583	18-63	33.42 (10.03)	379	18-35	198	36-59		
2	Bartels et al. (2013), study 1	MA _{cont-lin}	125	18-70	36.71 (13.34)						
3	Bartels et al. (2013), study 2	MA _{cont-lin}	155	18-67	34.58 (12.60)						
4	Bailey et al. (2013)	MA _{groups}				35	18-33			34	65-92
5	Bailey et al. (2018)	MA _{groups}				40	17-29			39	61-82
6	Beadle et al. (2015)	MA _{groups}				24	18-26			24	67-93
7	<u>Bekkers et al. (2022)</u>	MA _{cont-lin} , MA _{cont-quad} , MA _{groups}	1964	18-98	46.12 (15.65)	604	18-35	897	36-59	463	60-98
8	Best & Freund (2021), study 2	MA _{cont-lin}	156	18-89	49.44 (21.02)						
9	Best & Freund (2021), study 3	MA _{cont-lin}	342	19-88	49.77 (19.61)						
10	Bjälkebring et al. (2016), study 1	MA _{cont-lin}	353	20-74	47.00 (12.50)						
11	Bjälkebring et al. (2016), study 2	MA _{cont-lin}	72	19-89	49.00 (20.39)						
12a	Böckler et al. (2016)	MA _{cont-lin}	327	20-55	40.69 (9.22)						
12b	Böckler et al. (2016)	MA _{cont-lin}	325	20-55	40.69 (9.28)						
12c	Böckler et al. (2016)	MA _{cont-lin}	322	20-55	40.71 (9.25)						
13	Bruine de Bruin & Ulqinaku (2020)	MA _{cont-lin} , MA _{groups}	2,725	19-100	51.00 (15.69)	252	18-29			305	71-100
14	Brüne et al. (2021)	MA _{cont-lin}	30	22-69	42.77 (13.74)						
15a	<u>Campos-Mercade et al. (2021)</u>	MA _{cont-lin} , MA _{cont-quad} , MA _{groups}	967	18-81	46.70 (15.80)	284	18-35	457	36-59	226	60-81
15b	<u>Campos-Mercade et al. (2021)</u>	MA _{cont-lin} , MA _{cont-quad} , MA _{groups}	967	18-81	46.70 (15.80)	284	18-35	457	36-59	226	60-81

16	Camilleri & Larrick (2019), study 2	MA _{cont-lin}	101	18-68	30.35 (10.13)							
17	Cavallini et al. (2021)	MA _{cont-lin}	150	55-86	69.52 (9.07)							
18	Cho et al. (2020)	MA _{groups}				26	19-28			26	64-80	
19	Csukly et al. (2011)	MA _{cont-lin}	29	18-54	32.86 (9.09)							
20	Cutler et al. (2021), sample 1	MA _{cont-lin} , MA _{cont-quad} , MA _{groups}	23,287	18-99	43.00 (15.98)	9034	18-35	9723	36-59	4530	60-99	
21	Cutler et al. (2021), sample 2	MA _{cont-lin} , MA _{cont-quad} , MA _{groups}	23,287	18-99	43.14 (16.03)	8973	18-35	9728	36-59	4586	60-99	
22	Deutchman & Sullivan (2018)	MA _{cont-lin} , MA _{cont-quad} , MA _{groups}	1,399	18-74	32.21 (9.65)	1024	18-35	350	36-59	25	60-74	
23	Deutchman et al. (2022)	MA _{cont-lin} , MA _{cont-quad} , MA _{groups}	4,076	18-91	38.89 (12.04)	1920	18-35	1858	36-59	298	60-91	
24	Doppelhofer et al. (2021)	MA _{cont-lin}	603	18-60	37.70 (11.64)							
25a	Olsson et al. (2021)	MA _{cont-lin} , MA _{cont-quad} , MA _{groups}	1,915	18-87	45.10 (15.71)	629	18-35	865	36-59	421	60-87	
25b	Olsson et al. (2021)	MA _{cont-lin} , MA _{cont-quad} , MA _{groups}	1,915	18-87	45.10 (15.71)	629	18-35	865	36-59	421	60-87	
25c	Dorrrough & Glöckner (2020)	MA _{cont-lin} , MA _{cont-quad} , MA _{groups}	1,903	18-87	45.12 (15.71)	623	18-35	861	36-59	419	60-87	
26	Froehlich et al. (2021)	MA _{cont-lin} , MA _{cont-quad} , MA _{groups}	2,890	18-88	48.09 (16.90)	820	18-35	1164	36-59	906	60-88	
27	Dorrrough & Glöckner (2019)	MA _{cont-lin} , MA _{cont-quad} , MA _{groups}	2,429	18-83	42.97 (15.00)	894	18-35	1150	36-59	385	60-83	
28a	Fiedler et al. (2018)	MA _{cont-lin} , MA _{cont-quad} , MA _{groups}	915	18-84	40.47 (14.81)	396	18-35	406	36-59	113	60-84	
28b	Fiedler et al. (2018)	MA _{cont-lin} , MA _{cont-quad} , MA _{groups}	915	18-84	40.47 (14.81)	396	18-35	406	36-59	113	60-84	
29	Dorrrough & Glöckner (2016), Sample a	MA _{cont-lin} , MA _{cont-quad} , MA _{groups}	751	18-73	32.07 (12.05)	539	18-35	186	36-59	26	60-73	
30	Dorrrough & Glöckner (2016), Sample b	MA _{cont-lin} , MA _{cont-quad} , MA _{groups}	1,227	18-83	42.22 (14.59)	478	18-35	579	36-59	170	60-83	
31	Dorrrough & Glöckner (2016), Sample c	MA _{cont-lin} , MA _{groups}	477	18-61	30.08 (8.44)	373	18-35	101	36-57			
32	Duek et al. (2014)	MA _{cont-lin}	37	24-63	38.57 (10.66)							
33	<u>Ehlert et al. (2021)</u>	MA _{cont-lin} , MA _{cont-quad} , MA _{groups}	689	18-94	47.86 (15.70)	182	18-35	308	36-59	199	60-94	
34	<u>Eriksson & Strimling (2014)</u> , study 1/2	MA _{cont-lin} , MA _{groups}	281	18-70	52.53 (11.18)	192	18-35	83	36-59			

35	<u>Eriksson & Strimling (2014), study 3</u>	MA _{cont-lin} , MA _{groups}	521	18-76	31.40 (10.36)	399	18-35	108	36-59		
36	<u>Eriksson & Strimling (2014), study 4</u>	MA _{cont-lin} , MA _{groups}	192	18-64	32.33 (10.03)	133	18-35	56	36-58		
37	<u>Eriksson & Strimling (2014), study 5</u>	MA _{cont-lin} , MA _{groups}	181	20-70	33.20 (11.49)	131	20-35	43	36-59		
38	<u>Fernandes et al. (2019)</u>	MA _{groups}				30	20-35	30	40-55	29	60-75
39	Foulkes et al. (2018)	MA _{groups}				232	19-25	235	26-59		
40	Gaesser et al. (2017)	MA _{groups}				29	18-27			31	65-86
41	Galante et al. (2016)	MA _{cont-lin}	67	19-67	39.59 (13.91)						
42a	Gong et al. (2019)	MA _{groups}				89	18-44			66	60-84
42b	Gong et al. (2019)	MA _{groups}				89	18-44			66	60-84
43	<u>Greiff & Rusch (2022)</u>	MA _{cont-lin} , MA _{groups}	119	19-70	39.29 (12.44)	57	19-35	54	36-58		
44	<u>Grimalda et al. (2016)</u>	MA _{cont-lin} , MA _{groups}	66	19-70	35.33 (12.91)	38	19-35	26	36-59		
45	Gummerum & Hanoch (2012)	MA _{cont-lin}	50	20-61	35.22 (11.49)						
46	Harlé & Sanfey (2012)	MA _{groups}				18	18-27			20	55-78
47	Hepp et al. (2018), study 1	MA _{cont-lin}	26	18-49	32.15 (7.73)						
48	Horn & Freund (2021b)	MA _{cont-lin}	180	18-85	50.83 (21.08)						
49	Horn & Freund (2021a), Study 2	MA _{cont-lin} , MA _{cont-quad} , MA _{groups}	169	18-76	43.34 (18.31)	67	18-34	49	35-59	53	60-76
50	Horn & Freund (2022)	MA _{groups}				29	20-29			36	61-82
51	House et al. (2020)	MA _{cont-lin} , MA _{cont-quad} , MA _{groups}	244	18-73	36.52 (14.29)	128	18-34	94	35-59	22	60-73
52	Hubbard et al. (2016)	MA _{cont-lin}	80	18-67	44.23 (11.49)						
53a	Hulka et al. (2014)	MA _{cont-lin}	68	19-57	30.63 (9.15)						
53b	Hulka et al. (2014)	MA _{cont-lin}	68	19-57	30.63 (9.15)						
54	Juhl et al. (2020), study 5	MA _{cont-lin}	234	20-79	38.08 (13.03)						
55	Kettner & Waichman (2016)	MA _{groups}				271	18-33			167	60-82
56	Körner & Schütz (2021), study 4	MA _{cont-lin} , MA _{groups}	180	19-75	31.32 (12.49)	142	19-35	27	38-59		
57a	Li & Siu (2019), study 2	MA _{cont-lin}	423	20-91	49.76 (17.28)						
57b	Li & Siu (2019), study 2	MA _{cont-lin}	423	20-91	49.76 (17.28)						

58a	Liu et al. (2022) , Mturk Sample	MA _{cont-lin} , MA _{cont-quad} , MA _{groups}	1,431	18-65	34.92 (9.89)	887	18-35	510	36-59	34	60-65
58b	Liu et al. (2022) , Mturk Sample	MA _{cont-lin} , MA _{cont-quad} , MA _{groups}	1,267	18-65	35.04 (10.00)	778	18-35	456	36-59	33	60-65
59a	Liu et al. (2022) , Prolific Sample	MA _{cont-lin} , MA _{cont-quad} , MA _{groups}	2,644	18-70	39.62 (12.07)	1071	18-35	1416	36-59	157	60-70
59b	Liu et al. (2022) , Prolific Sample	MA _{cont-lin} , MA _{cont-quad} , MA _{groups}	2,483	18-70	39.77 (12.04)	991	18-35	1343	36-59	149	60-70
60	Liu et al. (2021) , Dutch Sample	MA _{cont-lin} , MA _{cont-quad} , MA _{groups}	7,859	18-94	52.07 (17.72)	1783	18-35	2981	36-59	3095	60-94
61a	Long & Krause (2017), study 1	MA _{cont-lin}	496	18-87	46.40 (17.43)						
61b	Long & Krause (2017), study 1	MA _{cont-lin}	496	18-87	46.44 (17.45)						
62a	Long & Krause (2017), study 2	MA _{cont-lin}	1,087	18-94	47.12 (17.48)						
62b	Long & Krause (2017), study 2	MA _{cont-lin}	1,117	18-94	47.04 (17.49)						
63	Lotz (2015)	MA _{cont-lin} , MA _{groups}	211	18-61	29.04 (8.15)	181	18-35	29	36-59		
64	Mao et al. (2017)	MA _{cont-lin} , MA _{groups}	83	18-61	33.48 (9.84)	53	18-35	29	36-56	53	18-35
65a	Matsumoto et al. (2016)	MA _{cont-lin} , MA _{groups}	488	19-59	40.46 (10.61)	166	19-35	322	36-59		
65b	Matsumoto et al. (2016)	MA _{cont-lin} , MA _{groups}	473	19-59	40.51 (10.52)	161	19-35	312	36-59		
65c	Matsumoto et al. (2016)	MA _{cont-lin} , MA _{groups}	473	19-59	40.51 (10.52)	161	19-35	312	36-59		
65d	Matsumoto et al. (2016)	MA _{cont-lin} , MA _{groups}	470	19-59	40.69 (10.52)	142	20-35	291	36-59		
65e	Matsumoto et al. (2016)	MA _{cont-lin} , MA _{groups}	433	20-59	40.79 (10.34)	157	19-35	313	36-59		
65f	Matsumoto et al. (2016)	MA _{cont-lin} , MA _{groups}	460	19-59	40.59 (10.57)	155	19-35	305	36-59		
65g	Yamagishi et al. (2016)	MA _{cont-lin} , MA _{groups}	411	20-59	40.64 (10.59)	138	20-35	273	36-59		
66	Maxfield et al. (2014), study 2	MA _{groups}	35	18-21			41	60-90	35	18-21	
67	Mienaltowski (2009), study 1	MA _{groups}	81	18-28			72	58-82	81	18-28	
68	Mienaltowski & Wichman (2020)	MA _{groups}	147	18-24			136	56-82	147	18-24	
69a	Mischkowski & Glöckner (2016) , study 1	MA _{cont-lin} , MA _{groups}	133	18-61	30.50 (9.87)	105	18-35	23	36-58		
69a	Mischkowski & Glöckner (2016) , study 1	MA _{cont-lin} , MA _{groups}	133	18-61	30.50 (9.87)	105	18-35	23	36-58		
70a	Mischkowski & Glöckner (2016) , study 3	MA _{cont-lin} , MA _{cont-quad} , MA _{groups}	504	18-77	46.13 (14.90)	152	18-35	239	36-59	113	60-77

70a	<u>Mischkowski & Glöckner (2016), study 3</u>	MA _{cont-lin} , MA _{cont-quad} , MA _{groups}	504	18-77	46.13 (14.90)	152	18-35	239	36-59	113	60-77
71	Moersdorf et al. (2018)	MA _{cont-lin} , MA _{cont-quad} , MA _{groups}	113	20-83	50.74 (20.61)	29	20-32	41	35-59	43	60-83
72a	Müller & Moshagen (2019)	MA _{cont-lin}	461	19-83	47.40 (13.30)						
72b	Müller & Moshagen (2019)	MA _{cont-lin}	461	19-83	47.40 (13.30)						
73	<u>O'Grady et al. (2019)</u>	MA _{cont-lin}	523	21-71	39.38 (10-53)						
74	Oleszkiewicz & Kupczyk (2020)	MA _{cont-lin} , MA _{groups}	194	19-57	31.60 (10.78)	134	19-35	60	36-57		
75	Polgár et al. (2014)	MA _{cont-lin}	40	18-52	31.58 (8.42)						
76	Powell et al. (2018)	MA _{cont-lin} , MA _{groups}	259	18-66	25.91 (8.41)	232	18-35	26	36-57	232	18-35
77	Pulcu & Haruno (2020)	MA _{cont-lin}	50	20-56	31.50 (9.49)						
78	Raihani & Barclay (2016)	MA _{cont-lin} , MA _{groups}	298	19-73	34.46 (10.94)	189	19-35	98	36-59		
79a	Raihani & Bell (2018)	MA _{cont-lin} , MA _{cont-quad} , MA _{groups}	1,528	18-81	38.72 (12.08)	754	18-35	657	36-59	117	60-81
79b	Raihani & Bell (2018)	MA _{cont-lin} , MA _{cont-quad} , MA _{groups}	1,528	18-81	38.72 (12.08)	754	18-35	657	36-59	117	60-81
80	Raihani & Bshary (2012)	MA _{cont-lin} , MA _{groups}	198	18-61	26.88 (8.18)	175	18-35	22	36-56	175	18-35
81	Raihani & McAuliffe (2014)	MA _{cont-lin} , MA _{groups}	380	18-71	29.99 (9.61)	313	18-35	59	36-59		
82	Raihani et al. (2013), Indian sample	MA _{cont-lin} , MA _{groups}	282	18-65	28.92 (8.90)	236	18-35	41	36-58		
83	Raihani et al. (2013), US sample	MA _{cont-lin} , MA _{groups}	292	18-65	28.47 (8.74)	243	18-35	45	36-58		
84	<u>Reddinger et al. (2022)</u>	MA _{cont-lin} , MA _{cont-quad} , MA _{groups}	543	18-74	36.32 (11.58)	303	18-25	215	36-59	25	60-74
85a	Rieger & Mata (2015)	MA _{cont-lin} , MA _{cont-quad} , MA _{groups}	736	18-92	53.28 (14.93)	84	18-35	410	36-59	242	60-92
85b	Rieger & Mata (2015)	MA _{cont-lin} , MA _{cont-quad} , MA _{groups}	725	18-92	53.36 (14.97)	82	18-35	403	36-59	240	60-92
86a	Roalf et al. (2012)	MA _{cont-lin} , MA _{groups}	29	21-45	30.14 (5.53)	29	21-45			30	65-85
86b	Roalf et al. (2012)	MA _{cont-lin} , MA _{groups}	29	21-45	30.14 (5.53)	29	21-45			30	65-85
87a	Romano et al. (2021)	MA _{groups}				130	18-39	111	40-59	118	60-90
87b	Romano et al. (2021)	MA _{groups}				130	18-39	111	40-59	118	60-90
88	Rosen et al. (2016)	MA _{cont-lin} , MA _{groups}	197	19-86	45.98 (18.39)	74	19-35			48	60-86
89	Rosi et al. (2019)	MA _{groups}				48	19-30			48	61-82
90	Shaw et al. (2019),	MA _{cont-lin}	33	19-65	29.57 (10.26)						

	proposer sample										
91	Shaw et al. (2019), responder sample	MA _{cont-lin}	33	21-65	31.66 (11.79)						
92a	Sircar et al. (2018)	MA _{cont-lin} , MA _{cont-quad} , MA _{groups}	129	20-85	43.06 (13.44)	43	20-35	66	36-58	20	60-85
92b	Voors (2018)	MA _{cont-lin} , MA _{cont-quad} , MA _{groups}	495	18-85	43.99 (15.14)	183	18-35	213	36-58	99	60-85
93	Solomon & Zeitzer (2019)	MA _{cont-lin} , MA _{groups}	77	18-72	36.05 (13.11)	43	18-35	28	36-58		
94a	Sparrow & Spaniol (2018), study 1	MA _{groups}				32	18-35			30	65-85
94b	Sparrow & Spaniol (2018), study 1	MA _{groups}				32	18-35			30	65-85
95a	Sparrow & Spaniol (2018), study 2	MA _{groups}				31	18-30			23	65-97
95b	Sparrow & Spaniol (2018), study 2	MA _{groups}				31	18-30			23	65-97
96a	Sparrow et al. (2019)	MA _{groups}				36	18-30			36	65-85
96b	Sparrow et al. (2019)	MA _{groups}				36	18-30			36	65-85
97	Sze et al. (2012)	MA _{groups}				71	20-30	72	40-50	70	60-80
98a	Hilbig et al. (2023)	MA _{cont-lin}	470	19-66	42.53 (12.43)						
98b	Hilbig et al. (2023)	MA _{cont-lin}	2,707	18-96	43.48 (12.47)						
99	Thornton & Akinin (2020), study 2	MA _{cont-lin} , MA _{cont-quad} , MA _{groups}	466	18-83	54.48 (15.13)	71	18-35	193	36-59	202	60-83
100	Tinghög et al. (2016)	MA _{cont-lin} , MA _{cont-quad} , MA _{groups}	298	20-76	43.88 (13.12)	95	20-35	165	36-59	38	60-76
101a	Tognetti et al. (2013)	MA _{cont-lin} , MA _{groups}	320	18-78	38.81 (15.09)	134	18-34	152	35-59	34	60-78
101b	Tognetti et al. (2013)	MA _{cont-lin} , MA _{groups}	320	18-78	38.81 (15.09)	134	18-34	152	35-59	34	60-78
102	Van Doesum et al. (2020), study 3	MA _{cont-lin}	526	18-78	37.03 (13.07)						
103	Van Doesum et al. (2020), study 4	MA _{cont-lin}	1,098	18-90	50.51 (16.03)						
104	Vardy & Atkinson (2019)	MA _{cont-lin} , MA _{cont-quad} , MA _{groups}	164	18-78	37.51 (15.49)	88	18-35	53	36-58	23	60-78
105	Weiß et al. (2020b)	MA _{cont-lin}	55	18-66	28.55 (11.57)						

106	Weiß et al. (2020a)	MA _{cont-lin}	56	19-62	28.45 (9.91)				
107	Weiß et al. (2021)	MA _{cont-lin} , MA _{groups}	106	18-67	30.48 (13.46)	74	18-32	30	36-59
108	Zettler et al. (2013), study 1	MA _{cont-lin}	113	18-66	29.68 (9.62)				
109	Zettler et al. (2013), study 2	MA _{cont-lin} , MA _{groups}	87	18-66	34.49 (11.85)	47	18-35	37	36-58

Table S3*Operationalization of Behavioral Prosociality (MA_{behav})*

No.	Study/Sample	Ms	Operationalization
1	Alonso-Ferres et al. (2020), study 2	Sc	4-item measure to evaluate helping behavior inclination across 4 scenarios on a 7-point Likert scale. Mean score used as prosocial measure.
2	Bartels et al. (2013), study 1	DP	Amount donated to charity used as prosocial measure, chosen from a set of 13 allocations, ranging from donate all \$6 bonus payment to donate nothing and keep all the money.
3	Bartels et al. (2013), study 2	DP	Amount donated to charity used as prosocial measure, chosen from a set of 13 allocations, ranging from donate all \$6 bonus payment to donate nothing and keep all the money.
4	Bailey et al. (2013)	UG	Participant divide 10\$ between herself and her partner (in the role of the proposer). Amount of money offered across 4 trials used as prosocial measure.
5	Bailey et al. (2018)	HT	Participants were asked to compile papers into pamphlets after the experiment. All participants were stopped after 10 minutes. To control the age differences in sensorimotor processing speed, the Digit Symbol Substitution Test (Wechsler, 1981) was performed. Helping effort was used as the prosocial measure indicated by the number of compiled pamphlets divided by the test score of the digit symbol test.
6	Beadle et al. (2015)	DG	Participants had to split \$10 between themselves and their partners (ranging from \$1 to \$9). Mean amount of money offered was used as prosocial measure.
7	<u>Bekkers et al. (2002)</u>	DP	The binary choice to donate all (= 1) versus donate nothing (= 0) was used to measure prosociality. Only the data from 2002 were used.
8	Best & Freund (2021), study 2	DP	Participants were asked to complete a monotonous task for up to 15 minutes. Each time they clicked on a donation button 1 Swiss Rappen would be donated to charity. Prosocial behavior was measured as the time spent on the task.
9	Best & Freund (2021), study 3	DP	Binary choice to participate in a 3-minute monotonous task, which translated into a donation to charity, was used as the prosocial measure.
10	Bjälkebring et al. (2016), study 1	DP	Participants were asked how much they were willing to donate to help a child in need on a \$0 to \$50 scale. The mean of the hypothetical amount donated was used as prosocial measure.
11	Bjälkebring et al. (2016), study 2	DP	Participants were asked if they wanted to donate a part or all of their money (90 SEK, ~\$15), which they received as compensation for their participation in an unrelated experiment, to help a child in need. The amount donated was used as prosocial measure.

12a	Böckler et al. (2016)	DG	Participants transferred a desirable amount within their endowment option to an anonymous partner. The endowment options were 60/80/100/120/140 MUs (1MU= 10-euro cents). The percentage of money units transferred to Player B (average across two trials) was calculated for each participant as the measure of prosocial behavior.
12b	Böckler et al. (2016)	DP	In each of eight trials, participants read a short description of a real-life charity and decided how much from an endowment of 50-euro cents they wanted to donate to that charitable organization. The mean of donation in percentage was calculated as the measure of prosocial behavior.
12c	Böckler et al. (2016)	SVO	Triple Dominance Measure (P. A. Van Lange et al., 1997; P. A. M. Van Lange et al., 2012). Whenever a participants made at least 6 consistent choices out of 9 decomposed games categorical SVOs (prosocials, individualistics, competitors) were calculated and used as the measure of prosociality. 1="Prosocials", 2="Individualists", 3="Competitors", NA="Unclassified"
13	Bruine de Bruin & Ulqinaku (2020)	DP	Participants decided how much of \$5 they would donate to a charity and how much they wanted to keep for themselves. The average donated amount was calculated as the measure of prosocial behavior.
14	Brüne et al. (2021)	UG	Participants decided whether to accept or reject an unfair offer of 10 money units between themselves and their partners (e.g., 8:2). The acceptance of unfair offer was used as the prosocial measure.
15a	<u>Campos-Mercade et al. (2021)</u>	DG	Risk Dictator Game. The binary choice to either choose the option with no risk on the recipient (= 1) or to choose the option with the maximal risk on the recipient (= 0) was used as the prosocial measure.
15b	<u>Campos-Mercade et al. (2021)</u>	DP	Amount donated to COVID-19 fund was used as the measure of prosociality.
16	Camilleri & Larrick (2019), study 2	DP	Binary decision of visiting an external website for donation, with 0 = no donation and 1 = visiting website for donation as prosocial measure.
17	Cavallini et al. (2021)	DG	Participants decide how much of a 6€ endowment they want to keep for themselves and how much they want to give to another unknown player, The amount offered by the participants to the unknown player (ranging from 0 – 6 €) was used as the measure of prosocial behavior.
18	Cho et al. (2020)	UG	Participants decided whether to reject or accept an offer made by the proposer in the hyper-fair condition (choosing the 2/8 offer against the 8/2 offer). Acceptance rates were used as the prosocial measure.
19	Csukly et al. (2011)	UG	Participants decided whether to reject or accept an offer (split of 100 Hungarian Forints between the two players). Acceptance rate of unfair proposals (yes = 1, no = 0) were calculated and used as the prosocial measure.
20	<u>Cutler et al. (2021)</u> , sample 1	DP	Participants were asked to imagine they received an amount of money (the median daily wage in their country) and what percentage they would keep, and how much donate to a charity. The total amount donated was used as the prosocial measure.

21	<u>Cutler et al. (2021),</u> sample 2	DP	Participants were asked to imagine they received an amount of money (the median daily wage in their country) and what percentage they would keep, and how much donate to a charity. The total amount donated was used as the prosocial measure.
22	Deutchman & Sullivan (2018)	PD	Participants could choose to either cooperate (= 1) or betray (= 0) another person. The binary decision was used as the prosocial measure (one choice per participant).
23	Deutchman et al. (2022)	PGG	Participants could choose to either contribute their entire endowment of \$0.30 (= 1) or contribute nothing (= 0) to the group. The binary decision was used as the prosocial measure (one choice per participant).
24	Doppelhofer et al. (2021)	SVO	Slider Measurement (Murphy et al., 2011). Six primary items for the general SVO score were used. Participant indicated their preferred allocations of payoffs between themselves and another anonymous person for each item. SVO angles were calculated to capture how much a person is willing to sacrifice. The closer the angle to 90 degrees, the more prosocial a person.
25a	Olsson et al. (2021)	PD	Participants could transfer their respective endowment (100 Talers) to one another. The amount transferred to the partner was used as the prosocial measure.
25b	Olsson et al. (2021)	Sc	Assessing prosocial behavioral intentions in five scenarios. Participants were asked about the extent they would help the person described in the scenario. The intention to be helpful was used as the prosocial measure, ranging from 1 = very unlikely to 7 = very likely.
25c	Dorrrough & Glöckner (2020)	SVO	Slider Measurement (Murphy et al., 2011). Six primary items for the general SVO score were used. Participant indicated their preferred allocations of payoffs between themselves and another anonymous person for each item. SVO angles were calculated to capture how much a person is willing to sacrifice. The closer the angle to 90 degrees, the more prosocial a person.
26	Froehlich et al. (2021)	SVO	Slider Measurement (Murphy et al., 2011). Six primary items for the general SVO score were used. Participant indicated their preferred allocations of payoffs between themselves and another anonymous person for each item. SVO angles were calculated to capture how much a person is willing to sacrifice. The closer the angle to 90 degrees, the more prosocial a person.
27	Dorrrough & Glöckner (2019)	PD	Participants decided how much from their 100 US cents endowment they want to transfer to an anonymous partner. The transferred amount of money minus participants expectations of the amount they would receive from their partner was used as the prosocial measure.
28a	Fiedler et al. (2018)	DG	Participants decided how much from their endowment (100 Points) they would give to the receiver (offering amount ranging from 0-100 points in increments of 1). The sum of given points was calculated and used as prosocial measure.
28b	Fiedler et al. (2018)	SVO	Slider Measurement (Murphy et al., 2011). Six primary items for the general SVO score were used. Participant indicated their preferred allocations of payoffs between themselves and another anonymous person for each item. SVO angles were calculated to capture how much a person is willing to sacrifice. The closer the angle to 90 degrees, the more prosocial a person.

29	Dorrrough & Glöckner (2016), Sample a	PD	Participants decided how much from their 10 US dollars endowment they want to transfer to an anonymous partner. The transferred amount of money minus participant expectations of the amount they would receive from their partner (net-transfer) was used as prosocial measure.
30	Dorrrough & Glöckner (2016), Sample b	PD	Participants decided how much from their 10 US dollars endowment they want to transfer to an anonymous partner. The transferred amount of money minus participant expectations of the amount they would receive from their partner (net-transfer) was used as prosocial measure.
31	Dorrrough & Glöckner (2016), Sample c	PD	Participants decided how much from their 10 US dollars endowment they want to transfer to an anonymous partner. The transferred amount of money minus participant expectations of the amount they would receive from their partner (net-transfer) was used as prosocial measure.
32	Duek et al. (2014)	UG	Participant decided whether to accept or reject a monetary offer from an anonymous partner. The acceptance rate for unfair offers was calculated by the sum of 'yes'-responses as measure of prosocial behavior.
33	<u>Ehlert et al. (2021)</u>	SVO	Slider Measurement (Murphy et al., 2011). Six primary items for the general SVO score were used. Participant indicated their preferred allocations of payoffs between themselves and another anonymous person for each item. SVO angles were calculated to capture how much a person is willing to sacrifice. The closer the angle to 90 degrees, the more prosocial a person.
34	<u>Eriksson & Strimling (2014), study 1/2</u>	PGG	The amount of money transferred to the public good was used as prosocial measure (across study 1 and study 2).
35	<u>Eriksson & Strimling (2014), study 3</u>	PGG	The amount of money transferred to the public good was used as prosocial measure (across the three conditions).
36	<u>Eriksson & Strimling (2014), study 4</u>	PGG	The amount of money transferred to the public good was used as prosocial measure (across two conditions).
37	<u>Eriksson & Strimling (2014), study 5</u>	PGG	The amount of money transferred to the public good was used as prosocial measure (across two conditions).
38	<u>Fernandes et al. (2019)</u>	UG	Participants decided whether to accept or reject monetary offers from another player. The acceptance rate for unfair offers was calculated (unfair stakes are 15, 20, 25, 45, 60, 70) and used as the measure of prosocial behavior.
39	Foulkes et al. (2018)	Sc	Each participant saw 12 scenarios, including a sentence and image describing helping behavior toward another person. Afterwards they indicated on scale ranging from not at all to very how likely they would do this (Rating 1). Rating 1 was used to measure their prosocial behavior.

40	Gaesser et al. (2017)	Sc	Participants saw different scenarios, including a person needing help. Afterwards, the willingness to help for each scenario was measured with help of a Likert scale ranging from 1 (not at all) to 7 (very willing) as the measure of prosociality. Only 'no helping' aka. neutral baseline condition was used.
41	Galante et al. (2016)	DP	Each participant received \$10 after the experiment. They could then either choose to get the money in form of an amazon voucher or to donate all of it or half to a charity. The amount donated was used as prosocial measure.
42a	Gong et al. (2019), money condition	DP	Participants decided how much from their 100k Hong Kong Dollar they want to donate to another person. The average amount donated was used as the measure of prosociality.
42b	Gong et al. (2019), time condition	DP	Participants decided how much time from their 100 days of vacation they want to spend to take care of another person. The average amount of time spent was used as the measure of prosociality.
43	<u>Greiff & Rusch (2022)</u>	DP	The amount of money a participants was willing to pay was used as the prosocial measure (only active IND condition).
44	<u>Grimalda et al. (2016)</u>	PD	The amount of money transferred to the partner was used as prosocial measure (only baseline condition).
45	Gummerum & Hanoch (2012)	DG	Participants split 20 coins between themselves and an anonymous partner. The given amount (ranging from 0-20 coins, in increments of 1 coin) was calculated as the measure of prosociality.
46	Harlé & Sanfey (2012)	UG	Participants decided whether to accept or reject a monetary offer from a random partner. The offer resulted from a split of \$10 between two players. The acceptance rates of the most unfair offers (\$1) were used as the measure of prosocial behavior.
47	Hepp et al. (2018), study 1	DG	Participants decided how much of 5€ (in 50 cent coins) would they give to an unknown partner, by putting the coins in an envelope addressed to the partner. The given amount was used as the measure of prosociality.
48	Horn & Freund (2021b)	DP	Participants could decide how much of their subsequent payoff they want to keep for themselves or if they want to donate a specific amount to a charitable organization. Percentage of payoff donated used as measure of prosociality.
49	Horn & Freund (2021a), Study 2	DP	Participants were asked to choose the percentage of their payoff (from 0-100%) they would keep for themselves and/or donate to a charity. The percentage of payoff donated was measured and used as prosocial behavior.
50	Horn & Freund (2022)	DP	Proportion of payoff donated to a charity was used as the measure of prosociality.
51	House et al. (2020)	DG	Participants could decide between two paper trays, regarding the payment for themselves and another person. One tray led to a prosocial outcome, with each person receiving one token. The other tray led to a selfish outcome, in which the participant got 2 tokens and the partner was left with none. Their binary choices (keep two = 0, keep one give one away = 1) was used as the prosocial measure.
52	Hubbard et al. (2016)	TT	The giving choice factor was used as prosocial measure and calculated based on the active choice phase. In the experiment participants could transfer money from their endowment to a charity, by accepting or rejecting a given transfer option. The proportion of accepted trials, thus donating to a charity, was calculated.

53a	Hulka et al. (2014)	DG	Participants received an endowment of 50 points and decided the how many points (from 0- 50) they would like to give to another player B. The amount transferred to the partner to the player B was used as the measure of prosociality.
53b	Hulka et al. (2014)	DistrG	Participants choose one of 10 possible point distributions, ranging from a fair split (25-25) to the most opportunistic split (40-1). The number of points transferred to the partner was used as the measure of prosociality.
54	Juhl et al. (2020), study 5	DP	Participants could decide whether they want to donate a portion of their participation earnings (0 – 50 cents) to a charity. Prosocial behavior was coded whether or not participants donated (binary decision, 0 = no donation; 1 = donation).
55	Kettner & Waichman (2016)	DG	Participants could decide how to split a specific number of coins between themselves and a partner. The percentage of coins transferred to the partner was used as the prosocial measure.
56	Körner & Schütz (2021), study 4	Sc	Participants were asked to react to 18 hypothetical scenarios describing a person in need. As the measure of prosociality two independent raters coded their reaction as 1 = not prosocial, 2 = somewhat /conditionally prosocial, 3 = strongly prosocial. Mean value across all reaction were then calculated.
57a	Li & Siu (2019), study 2	CD	Participants were asked to imagine they were in a 10-person group with 100 tokens in the common pool and could keep up to 10 tokens for themselves. The number of tokens taken by each participant from the common pool was used as the measure of prosociality/selfishness.
57b	Li & Siu (2019), study 2	PGG	Participants were asked to imagine they were in a 10-person group, and each was endowed with 10 tokens. They could choose how much they would want to put in a public pool. The number of tokens contributed by each participant from the public pool was calculated as the measure of prosociality.
58a	Liu et al. (2022) , Mturk Sample	SVO	Slider Measurement (Murphy et al., 2011). Six primary items for the general SVO score were used. Participant indicated their preferred allocations of payoffs between themselves and another anonymous person for each item. SVO angles were calculated to capture how much a person is willing to sacrifice. The closer the angle to 90 degrees, the more prosocial a person.
58b	Liu et al. (2022) , Mturk Sample	SVO	Triple Dominance Measure (P. A. Van Lange et al., 1997; P. A. M. Van Lange et al., 2012). Whenever a participants made at least 6 consistent choices out of 9 decomposed games categorical SVOs (prosocials, individualistics, competitors) were calculated and used as the measure of prosociality. 1="Prosocials", 2="Individualists", 3="Competitors", NA="Unclassified"
59a	Liu et al. (2021) , Dutch Sample	SVO	Slider Measurement (Murphy et al., 2011). Six primary items for the general SVO score were used. Participant indicated their preferred allocations of payoffs between themselves and another anonymous person for each item. SVO angles were calculated to capture how much a person is willing to sacrifice. The closer the angle to 90 degrees, the more prosocial a person.
59b	Liu et al. (2022) , Prolific Sample	SVO	Triple Dominance Measure (P. A. Van Lange et al., 1997; P. A. M. Van Lange et al., 2012). Whenever a participants made at least 6 consistent choices out of 9 decomposed games categorical SVOs (prosocials, individualistics, competitors) were calculated and used as the measure of prosociality. 1="Prosocials", 2="Individualists", 3="Competitors", NA="Unclassified"

60	Liu et al. (2022) , Prolific Sample	SVO	Triple Dominance Measure (P. A. Van Lange et al., 1997; P. A. M. Van Lange et al., 2012). Whenever a participants made at least 6 consistent choices out of 9 decomposed games categorical SVOs (prosocials, individualistics, competitors) were calculated and used as the measure of prosociality. 1="Prosocials", 2="Individualists", 3="Competitors", NA="Unclassified"
61a	Long & Krause (2017), study 1	DG	Participants were asked to allocate 10 medical products of safety inventions, which would lower the recipient's chance of death in the next 10 years by 1/1000, between themselves and another person (10 different variants of this question in total). The mean value was used as the prosocial measure.
61b	Long & Krause (2017), study 1	DG	Participants were asked to allocate 10 scratch-off tickets, in which each had a 1/1000 chance of winning \$25000, between themselves and another person (10 different variants of this question in total). The mean value was used as the prosocial measure.
62a	Long & Krause (2017), study 2	DG	Participants were asked to decide if they or another person should receive a given number of medical products, which would lower the recipient's chance of dying in the next 10 years by 1/10000. The mean marginal rate of substitution implied by the dichotomous choices was used as the prosocial measure (MRS > 1 = favoring the other person over oneself and vice versa).
62b	Long & Krause (2017), study 2	DG	Participants were asked to decide if they would like a given number of scratch-off tickets, in which each had a 1/10000 chance of winning \$25000, to be handed to them or to another person. The mean marginal rate of substitution implied by the dichotomous choices was used as the prosocial measure (MRS > 1 = favoring the other person over oneself and vice versa).
63	Lotz (2015)	PGG	The amount invested in the group project was used as the operationalization of prosociality (across all four conditions, and only participants which passed the comprehension check).
64	Mao et al. (2017)	PD	Participants played 10 –round repeated PD games and were required to choose one of two actions in every round: cooperate or defect. Only the first game, including the first decisions with one partner were used in this meta-analysis. The sum of how often participants acted cooperative was then used as the measure of prosociality.
65a	Matsumoto et al. (2016)	DG	Participants would decide on how much from their initial endowment ranging from JPY 300-1300 they would allocate to their partner. The proportion allocated to the partner was doubled as an indicator of behavioral prosociality and whenever the doubled mean proportion was > 1, it was set to 1 as giving one-half was assumed to be mostly prosocial.
65b	Matsumoto et al. (2016)	PD	Participants received an endowment of JPY 1000 and could decide how much of it they would like to provide to their partner (in increments of JPY 100). The partner received twice the amount the participant provided. The proportion of endowment provided to the partner was used as the measure of prosocial behavior.
65c	Matsumoto et al. (2016)	PGG	Participants received an endowment of JPY 1000 and could decide how much of it they want to provide to the public pool (for the production of a public good, in increments of JPY 100). The proportion of endowment provided to the public good was used as a measure of prosociality.

65d	<u>Matsumoto et al. (2016)</u>	SVO	Ring method (Liebrand, 1984). Participants could choose one option indicating gain and loss for themselves and anonymous partner. Each option illustrates how many points both, the participant and its partner gain or lose by choosing it. Based on the answer the SVO angle was calculated, and participants were categorized into altruists, prosocials, individualists, or competitors. To gain a dichotomous categorization they grouped together altruists and prosocials, as well as individualist and competitors.
65e	<u>Matsumoto et al. (2016)</u>	SVO	Slider Measurement (Murphy et al., 2011). Six primary items for the general SVO score were used. Participant indicated their preferred allocations of payoffs between themselves and another anonymous person for each item. SVO angles were calculated to capture how much a person is willing to sacrifice. The closer the angle to 90 degrees, the more prosocial a person.
65f	<u>Matsumoto et al. (2016)</u>	SVO	Triple Dominance Measure (P. A. Van Lange et al., 1997; P. A. M. Van Lange et al., 2012). Whenever a participants made at least 6 consistent choices out of 9 decomposed games categorical SVOs (prosocials, individualistics, competitors) were calculated and used as the measure of prosociality. 1="Prosocials", 2="Individualists", 3="Competitors", NA="Unclassified"
65g	Yamagishi et al. (2016)	UG	Participants could decide how much of their endowment (JPY 1500) they want to transfer with a randomly chosen responder (in increments of JPY 100). Participants also played the game in the role of the responder, but the proportion of JPY transferred to the responder in the role of the proposer was used as the measure of prosocial behavior.
66	Maxfield et al. (2014), study 2	Sc	Participants were asked to read and imagine themselves in 2 different scenarios, regarding a pro-self and pro-social situation. Afterwards 4 questions were asked and modeled with the 'Satisfaction with Life Scale' (Diener et al., 1985) (1= strongly disagree, 11 = strongly agree). Overall mean satisfaction scores were used as an indicator for prosociality.
67	Mienaltowski (2009), study 1	PD	Participants had to collect nickels by taking turns opening doors using keys. Players could keep nickels they found after opening doors and would give the key to this specific door to the other player afterwards. The cooperation rate was calculated as a measurement for prosocial behavior.
68	Mienaltowski & Wichman (2020)	PD	Participants had to collect nickels by taking turns opening doors using keys. Players could keep nickels they found after opening doors and would give the key to this specific door to the other player afterwards. Cooperation with the selfish partner (making self-interest choices in 25%) was used as a measure of prosocial behavior.
69a	<u>Mischkowski & Glöckner (2016)</u> , study 1	PGG	The amount of money contributed to the public good was used as the measure of prosociality.
69a	<u>Mischkowski & Glöckner (2016)</u> , study 1	SVO	Slider Measurement (Murphy et al., 2011). Six primary items for the general SVO score were used. Participant indicated their preferred allocations of payoffs between themselves and another anonymous person for each item. SVO angles were calculated to capture how much a person is willing to sacrifice. The closer the angle to 90 degrees, the more prosocial a person.
70a	<u>Mischkowski & Glöckner (2016)</u> , study 3	PGG	The amount of money contributed to the public good was used as the measure of prosociality.

70a	<u>Mischkowski & Glöckner (2016)</u> , study 3	SVO	Slider Measurement (Murphy et al., 2011). Six primary items for the general SVO score were used. Participant indicated their preferred allocations of payoffs between themselves and another anonymous person for each item. SVO angles were calculated to capture how much a person is willing to sacrifice. The closer the angle to 90 degrees, the more prosocial a person.
71	Moersdorf et al. (2018)	DP	Participants could choose whether they wanted to reimburse themselves by receiving money for their participation, or whether they want to donate it to a charity (0 = take money, 1 = donation).
72a	Müller & Moshagen (2019), hypothetical condition	DG	Participants were asked to divide a hypothetically amount of 5 euros between themselves and a stranger. The amount of money they gave to their partner was used as an indicator of prosociality.
72b	Müller & Moshagen (2019), real monetary condition	DG	Participants were asked to divide an amount of 5 euros between themselves and a stranger. They were allowed to keep the money they allocated to themselves as a monetary reward. The amount of money they gave to their partner was measured as an indicator of prosociality.
73	<u>O'Grady et al. (2019)</u> , study 2	DP	Amount donated to charity (across all three waves (2a, 2b, and 2c)).
74	Oleszkiewicz & Kupczyk (2020)	DG	Participants (control sample) were asked to share their initial endowment of 10 coins with a fictive person. The amount of money shared with the partner (0-10) was measured.
75	Polgár et al. (2014)	UG	Participants acted as responders in the game. The proposer split an amount of 100 HUF between the participant and herself. Afterwards the participant could decide whether to accept or reject the offer made by the proposer. The acceptance rate of unfair offers was used as an indicator of prosocial behavior.
76	Powell et al. (2018)	DG	Participants were given 10 experimental currency units (CUs) and were then asked to distribute this amount between themselves and another person. They were told that their partner had 0 CUs and they could give any or none to the other person. The amount given to the partner was used as measure of prosociality.
77	Pulcu & Haruno (2020)	SVO	Slider Measurement (Murphy et al., 2011). Six primary items for the general SVO score were used. Participant indicated their preferred allocations of payoffs between themselves and another anonymous person for each item. SVO angles were calculated to capture how much a person is willing to sacrifice. The closer the angle to 90 degrees, the more prosocial a person.
78	Raihani & Barclay (2016)	DG	Participants could choose to send some of their starting endowment to another player (either 20% or 50%). Binary decision of the allocated amount was measured. (20% = 0, 50% = 1) as indicator of prosociality.
79a	Raihani & Bell (2018)	DG	Participants were given an endowment of \$0.55 and from which they could send any amount (in increments of \$0.05) to the receiver. The amount given to the receiver (0-0.55) was measured as indicator of prosociality.

79b	Raihani & Bell (2018)	UG	Participants were given an endowment of \$0.50 from which they could offer any amount (in increments of \$0.05) to the receiver. They were also informed that the receiver would have the veto power on the decision: If the receiver rejected the offer, both would receive nothing. The amount proposed to the receiver (0-0.50) was measured as indicator of prosociality.
80	Raihani & Bshary (2012)	DG	Participants were asked to share an amount of \$0,50 with an anonymous receiver. The amount chosen to share (0.00 - 0.50) was measured as an indicator of prosociality.
81	Raihani & McAuliffe (2014)	DG	Participants were asked to distribute a stake of \$1 between themselves and another person. The amount donated to the other person (ranged from 0-1) was used as the measure of prosocial behavior.
82	Raihani et al. (2013), Indian sample	DG	Participants could transfer some, all or none of their endowment (\$1, \$5, or \$10) to a second player. The amount of money given to their partner in each case was measured as an indicator of prosociality.
83	Raihani et al. (2013), US sample	DG	Participants could transfer some, all or none of their endowment (\$1, \$5, or \$10) to a second player. The amount of money given to their partner in each case was measured as an indicator of prosociality.
84	<u>Reddinger et al. (2022)</u>	PGG	Participants decided how much of their \$4 endowment they want to contribute to the public good. The amount of money contributed was used as the measure of prosociality (across both vaccination conditions).
85a	Rieger & Mata (2015)	DG	Participants were given 5 MAD and they could decide how much to keep and how much to give away to the receiver. The amount donated (sum of the three conditions) was measured as indicator of prosociality.
85b	Rieger & Mata (2015)	PGG	Participants were endowed with 12 MAD and could decide in private between keeping the money or donating the whole amount to a public pool. The binary decision to contribute to the public good was used as the measurement of prosocial behavior (keep the money = 0, donate = 1).
86a	Roalf et al. (2012)	DG	Participants decide on dividing a \$10 endowment between themselves and another anonymous partner. The average amount offered to the other participant was measured as an indicator of prosocial behavior.
86b	Roalf et al. (2012)	UG	Participants were asked if they would accept or reject an offer (split of \$10 between them and the proposer). 20% of the offers were fair, 60% were moderately unfair and 20% were extremely unfair. The total percentage of offers accepted was used as the prosocial measure.
87a	Romano et al. (2021)	DG	Participants were asked to decide how much from an endowment of \$10 they would like to keep for themselves and share with another participant. The average amount offered to the recipient (across all three conditions) was used as measure of prosociality.
87b	Romano et al. (2021)	PD	Participants could decide whether to cooperate with another partner or not. The cooperation fraction was measured. The proportion of cooperation was used as the measure of prosociality.
88	Rosen et al. (2016)	Sc	The task includes 20 short stories describing moral dilemma situations. For each situation participants have to decide between a morally desirable ('altruistic') and a personally preferable ('egoistic') behavior. Afterwards participants were asked whether they

			would choose altruistic or egoistic behavior (yes or no question), if they were in the described situation. The percentage of altruistic choices was calculated to indicate prosocial behavior.
89	Rosi et al. (2019)	DG	Participants were asked how much from a €6 endowment they wanted to keep for themselves and how much they would give to another participant. The amount offered by participants for each condition ranging from 0-6 euro was measured as an indicator of prosociality.
90	Shaw et al. (2019), proposer sample	UG	In each round proposer were presented a choice set consisting of the division of 100 Kc between themselves and the responder, from which the proposer should select one. This in turn was then presented to the responder. The proportion of 60 experimental trials in which the proposer offered the most selfish of the two monetary divisions was used as the measure of prosociality.
91	Shaw et al. (2019), responder sample	UG	Participants (responders) could choose to either accept or reject an offered of dividing 100 Kč from another player (the proposers), in which they were informed that proposers had two choices to divide this amount of money. The proportion of the selfish offers accepted by the responder was measured as prosocial behavior.
92a	Sircar et al. (2018)	UG	Participants (senders) were endowed with 5000 LE and asked to offer a fraction of their endowment to another player (the receiver). The receiver could then choose to accept or reject the offer. Both, sender, and receiver played anonymously. The amount of money offered to the receiver was used as an indicator of prosociality.
92b	Voors (2018)	PGG	Participants decided how much of their 5 tokens they want to keep for themselves and to invest into a public pool with 2 other partners. The number of invested tokens from the initial endowment of the participants was used as an indicator of prosocial behavior.
93	Solomon & Zeitzer (2019)	HT	Participants were approached and asked if they would be willing to answer a survey. Participants that finished the first survey were then asked if they could participate in a second related survey consisting of 80 questions. They were also informed that they would not need to answer all 80 questions and asked how many questions they would like to answer. The number of questions (ranging from 0-80) that participants agreed to answer was used as a measure of time-giving prosocial behavior.
94a	Sparrow & Spaniol (2018), study 1	DG	Participants were asked how much from a hypothetical \$10 endowment they would like to keep for themselves and how much they wanted to donate to a stranger. The amount of money transferred to the stranger was measured as an indicator of prosociality.
94b	Sparrow & Spaniol (2018), study 1	DG	Participants were asked how much from a hypothetical \$10 endowment they would like to keep for themselves and how much they wanted to donate to a charity. The amount of money transferred to the previously chosen charity was measured as an indicator of prosociality.
95a	Sparrow & Spaniol (2018), study 2	DG	Participants were asked how much from a hypothetical \$10 endowment they would like to keep for themselves and how much they wanted to donate to a stranger. The amount of money transferred to the stranger was measured as an indicator of prosociality.

95b	Sparrow & Spaniol (2018), study 2	DG	Participants were asked how much from a hypothetical \$10 endowment they would like to keep for themselves and how much they wanted to donate to a charity. The amount of money transferred to the previously chosen charity was measured as an indicator of prosociality.
96a	Sparrow et al. (2019)	DG	Participants were asked how much from a hypothetical \$10 endowment they would like to keep for themselves and how much they wanted to donate to a stranger. The amount of money transferred to the stranger was measured as an indicator of prosociality.
96b	Sparrow et al. (2019)	DG	Participants were asked how much from a hypothetical \$10 endowment they would like to keep for themselves and how much they wanted to donate to a charity. The amount of money transferred to the previously chosen charity was measured as an indicator of prosociality.
97	Sze et al. (2012)	DP	Participants were given \$10 and informed about two charitable organizations. They could choose to donate none/some/all to either or both of the two charities. The total dollar amount (0-10) donated by each participant to each of the two charitable organizations was measured.
98a	Hilbig et al. (2023)	PGG	Monetary contribution to the public good was measured as an indicator of prosociality.
98b	Hilbig et al. (2023)	SVO	Slider Measurement (Murphy et al., 2011). Six primary items for the general SVO score were used. Participant indicated their preferred allocations of payoffs between themselves and another anonymous person for each item. SVO angles were calculated to capture how much a person is willing to sacrifice. The closer the angle to 90 degrees, the more prosocial a person.
99	Thornton & Aknin (2020), study 2	DG	Participants could decide how to divide a hypothetical amount of \$10 between themselves and another person. The amount of money transferred to the other person was used as an indicator of prosocial behavior.
100	Tinghög et al. (2016)	DG	Participants played four rounds of DG. In each round, participants chose whether to give all money to a charity or keep the whole amount for themselves. The rate of games answered altruistically was calculated as an indicator of prosociality.
101a	Tognetti et al. (2013)	PGG	The participants played five rounds of the PGG. Every play received 200 grams of rice as starting endowment. Participant should allocate their endowment between themselves and a public good. The allocation made to the public good was used as the prosocial measure.
101b	Tognetti et al. (2013)	DP	After participants received their final payoff, they could decide whether to donate part of it. The amount donated was used as an indicator of prosociality.
102	Van Doesum et al. (2020), study 3	SVO	Slider Measurement (Murphy et al., 2011). Six primary items for the general SVO score were used. Participant indicated their preferred allocations of payoffs between themselves and another anonymous person for each item. SVO angles were calculated to capture how much a person is willing to sacrifice. The closer the angle to 90 degrees, the more prosocial a person.

103	Van Doesum et al. (2020), study 4	SVO	Slider Measurement (Murphy et al., 2011). Six primary items for the general SVO score were used. Participant indicated their preferred allocations of payoffs between themselves and another anonymous person for each item. SVO angles were calculated to capture how much a person is willing to sacrifice. The closer the angle to 90 degrees, the more prosocial a person.
104	Vardy & Atkinson (2019)	DG	Participants could share their endowment (10 coins) with an anonymous partner at their personal cost. The amount given to the partner was used as prosocial measure.
105	Weiß et al. (2020b)	UG	Participants played the game in the role of the responder. Participants decide whether to accept or reject the proposed offer. The mean acceptance rate of the unfair offers (0 and 1 cent) was used as the measure of prosocial behavior.
106	Weiß et al. (2020a)	UG	Participants played the game in the role of the responder. Participants decide whether to accept or reject the proposed offer. The mean acceptance rate of the unfair offers (0 and 1 cent) was used as the measure of prosocial behavior.
107	Weiß et al. (2021)	DG	Participants decided how much money they would give to a random partner (from 0 to 10 Euro). Amount of money transferred to the partner was used as an indicator of prosociality.
108	Zettler et al. (2013), study 1	PD	Single shot version. Participants could decide between cooperation and defection. The proportion of cooperation across the three conditions was used as the measure of prosociality.
109	Zettler et al. (2013), study 2	PD	Single shot version. Participants could decide between cooperation and defection. The binary decision to cooperate (versus defect) was used as the measurement of prosocial behavior (cooperation = 1, defection = 0).

Note. Ms = Behavioral measure used in the study; DP = Donation Paradigm; Sc = Scenarios; UG = Ultimatum Game; Dictator Game = DG; PD = Prisoner Dilemma; PGG = Public Good Game; HT = Helping Task; TT = Transaction Task; CD = Common Dilemma; DistrG = Distribution Game.

Table S4*Overview of All Studies Included in MA_{SRM}*

No.	Study/Sample	Meta-Analysis	<i>n</i>	Age range	Age <i>M</i> (<i>SD</i>)	<i>n</i> YA	Age range YA	<i>n</i> MA	Age range MA	<i>n</i> OA	Age range OA
1	Alonso-Ferres et al. (2020), study 1	MA _{cont-lin} , MA _{groups}	290	18-65	28.62 (10.82)	230	18-35	54	36-59		
2	Bailey et al. (2008)	MA _{groups}				80	19-25			49	65-87
3	Böckler et al. (2016)	MA _{cont-lin}	322	20-55	40.71 (9.25)						
4	Gibson (2008)	MA _{cont-lin}	100	17-64	38.92 (13.70)						
5	Hubbard et al. (2016)	MA _{cont-lin}	80	18-67	44.23 (11.49)						
6	Li & Siu (2019), study 2	MA _{cont-lin}	423	20-91	49.76 (17.28)						
7	Martela & Ryan (2016), study 1	MA _{cont-lin}	335	18-74	37.30 (14.40)						
8	Martela & Ryan (2016), study 2	MA _{cont-lin}	332	18-76	38.40 (14.50)						
9	Olsson et al. (2021)	MA _{cont-lin} , MA _{cont-quad} , MA _{groups}	1915	18-87	45.10 (15.71)	629	18-35	865	36-59	421	60-87
10	Sparrow & Spaniol (2018), study 1	MA _{groups}				32	18-35			30	65-85
11	Sparrow & Spaniol (2018), study 2	MA _{groups}				31	18-30			23	65-97
12	Sparrow et al. (2019)	MA _{groups}				36	18-30			36	65-85
13	Strobel et al. (2018)	MA _{cont-lin}	524	18-61	36.40 (11.77)						
14a	Thornton & Aknin (2020), study 2	MA _{cont-lin} , MA _{cont-quad} , MA _{groups}	466	18-83	54.48 (15.13)	71	18-35	193	36-59	202	60-83
14b	Thornton & Aknin (2020), study 2	MA _{cont-lin} , MA _{cont-quad} , MA _{groups}	466	18-83	54.48 (15.13)	71	18-35	193	36-59	202	60-83
14c	Thornton & Aknin (2020), study 2	MA _{cont-lin} , MA _{cont-quad} , MA _{groups}	464	18-83	54.53 (15.13)	70	18-35	192	36-59	202	60-83
15	Van Doesum et al. (2020), study 3	MA _{cont-lin}	526	18-78	37.03 (13.07)						
16	Van Doesum et al. (2020), study 4	MA _{cont-lin}	621	20-85	51.65 (14.24)						
17	Vekaria et al. (2020)	MA _{cont-lin} , MA _{groups}	52	23-67	38.67 (8.68)	20	23-35	31	36-53		
18a	Vieira et al. (2020)	MA _{cont-lin} , MA _{groups}	600	18-74	31.18 (10.68)	445	18-35	141	36-59		
18b	Vieira et al. (2020)	MA _{cont-lin} , MA _{groups}	600	18-74	31.18 (10.68)	445	18-35	141	36-59		
19	Webb et al. (2016)	MA _{groups}				35	18-30			33	66-92
20	Wenner & Randall (2016)	MA _{cont-lin}	188	37-89	56.04 (11.83)						

21	Anise (2006), study 2	MA _{cont-lin}	290	25-87	46.56 (16.04)
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Note. YA = Younger adults; MA = Middle-old adults; OA = Older adults

Table S5*Operationalization of Self-Reported Prosociality (MA_{SRM})*

No.	Study/Sample	SRM	Operationalization
1	Alonso-Ferres et al. (2020), study 1	Helping Behavior in Everyday Life Scale (Amato, 1990)	Participants indicated the amount of helping behaviors they had engaged in the last three months (0 = no, 1 = yes). The questionnaire contains 13 items of formal planned helping, 18 items of informal planned behavior, and 15 items of spontaneous helping behavior. The sum of the yes-responses was used as the prosocial measure.
2	Bailey et al. (2008)	Social Functioning Scale (Birchwood et al., 1990)	Participants were asked to rate their involvement in 21 different social activities in the last 3 months (which are normally done in company of other people). A higher score indicated a higher active social function and thus higher prosociality.
3	Böckler et al. (2016)	Prosocialness Scale (Caprara et al., 2005)	The questionnaire contains 16 items describing one's tendency to help and support others. Participants rated their willingness to help on a 5-point scale (1 = "never", 5 = "always"). The derived mean score of all answers was measured as indicator of prosociality.
4	Gibson (2008)	Altruism Scale (Rushton et al., 1981)	Questionnaire consisting of 20 items. Participants rate the frequency regarding their engagement in various altruistic behaviors (scale from 0 = never, to 4 = very often). Mean scores were used as an indicator of prosociality.
5	Hubbard et al. (2016)	scale of personality descriptive adjectives related to altruistic behavior (Wood et al., 2010)	Participants were asked to rate personality adjectives related to altruistic behavior ("How much do the traits describe you in general?"). A 7-point scale ranging from 1 (extremely uncharacteristic) to 7 (extremely characteristic) was used to measure self-rated prosociality.
6	Li & Siu (2019), study 2	altruistic and egoistic behavioral tendencies	Participants were asked whether they would conduct an altruistic behavior or not. There were 23 items for altruistic behavioral tendencies, rated through a 7-point scale, ranging from "strongly disagree" (1) to "strongly agree" (7). The mean score was calculated as a measure of prosociality.
7	Martela & Ryan (2016), study 1	Altruism Scale (Rushton et al., 1981)	Participants were asked how often they conducted the described prosocial behaviors in the past two weeks. There were in total 6 items and the prosocial tendency was rated on a 5-point scale (1= "never", 5 = "very often"). The mean value was used as an indicator of prosociality.

8	Martela & Ryan (2016), study 2	Altruism Scale (Rushton et al., 1981)	Participants were asked how often they conducted the described prosocial behaviors in the past two weeks. There were in total 6 items and the prosocial tendency was rated on a 5-point scale (1= "never", 5 = "very often"). The mean value was used as an indicator of prosociality.
9	Olsson et al. (2021)	Prosocialness Scale (Caprara et al., 2005)	A 6-item questionnaire was used to assess prosocial self-perceptions (for example: "I try to be close to and take care of those who are in need"). Participants rated items on a 5-point scale, ranging from 1 (never true) to 5 (always true). Mean values were calculated for self-report prosociality.
10	Sparrow & Spaniol (2018), study 1	Altruism Scale (Rushton et al., 1981)	Participants rated how often they engaged in various altruistic behaviors on a 5-point scale (from 1 = never to 5 = very often). There were in total 20 items and the mean value of all answers was used as the measure of self-report prosociality.
11	Sparrow & Spaniol (2018), study 2	Altruism Scale (Rushton et al., 1981)	Participants rated how often they engaged in various altruistic behaviors on a 5-point scale (from 1 = never to 5 = very often). There were in total 20 items and the mean value of all answers was used as the measure of self-report prosociality.
12	Sparrow et al. (2019)	Altruism Scale (Rushton et al., 1981)	Participants rated how often they engaged in various altruistic behaviors on a 5-point scale (from 1 = never to 5 = very often). There were in total 20 items and the mean value of all answers was used as the measure of self-report prosociality.
13	Strobel et al. (2018)	NEO-PI-R (Ostendorf & Angleitner, 2004)	The altruism facete of the agreeableness subscale was used to assess human prosociality on a 5-point Likert scale.
14a	Thornton & Aknin (2020), study 2	Altruism Scale (Rushton et al., 1981)	Participants rated how often they engaged in various altruistic behaviors on a 5-point scale (from 1 = never to 5 = very often). There were in total 20 items and the mean value of all answers was used as the measure of self-report prosociality.
14b	Thornton & Aknin (2020), study 2	Prosocial Personality battery: Social responsibility (Penner et al., 1995)	Participants were asked about their prosocial attitude through 7 items related to Social Responsibility in the Prosocial Personality Battery questionnaire. Items were rated on a 5-point scale ranging from 1 (Strongly Disagree) to 5 (Strongly Agree). The mean value of all answers was calculated and used as a measure of prosociality.
14c	Thornton & Aknin (2020), study 2	PSB: Prosocial Personality Battery: Moral reasoning (Penner et al., 1995)	Participants were shown 6 items related to Other-Oriented Moral Reasoning from the Prosocial Personality Battery questionnaire. Items were rated on a 5-point scale ranging from 1 (Strongly Disagree) to 5 (Strongly Agree). The mean value of all answers was calculated and used as a measure of prosociality.
15	Van Doesum et al. (2020), study 3	HEXACO-PI-R-100 (Lee & Ashton, 2016)	The altruism facet of the questionnaire was used to assess prosociality. Participants rated items on a 5-point scale ranging from 1 = strongly disagree to 5 = strongly agree.

16	Van Doesum et al. (2020), study 4	HEXACO-PI-R-100 (Lee & Ashton, 2016)	The altruism facet of the questionnaire was used to assess prosociality. Participants rated items on a 5-point scale ranging from 1 = strongly disagree to 5 = strongly agree.
17	Vekaria et al. (2020)	Altruism Scale (Rushton et al., 1981)	Participants rated 11 previously validated items adapted from the altruism scale. Daily helping behaviors of participants were measured for 14 days and the total sum of helping behaviors was calculated and used as an indicator of prosociality.
18a	Vieira et al. (2020)	Altruism Scale (Rushton et al., 1981)	Participants rated on a 5-point scale (from 1 = never to 5 = very often) their willingness to perform described altruistic behaviors. There were in total 20 items (for example: "I have given money to a charity") and sum scores were used as a measure of prosociality.
18b	Vieira et al. (2020)	Prosocial Behavior Intentions Scale (Baumsteiger & Siegel, 2019)	4-item scale wherein individuals rate how likely they are willing to engage in various prosocial behaviors. They were rated on a 7-point scale ranging from 1 (definitely would not do this) to 7 (definitely would do this). The mean value of all answers was measured as behavioral intention.
19	Webb et al. (2016)	Interpersonal Generosity Scale (Smith et al., 2009)	Participants were presented 10 statements, in which they were asked to rate how likely they would devote themselves in interpersonal relationships in order to enhance other's well-being. Items were rated on a 6-point scale (ranging from 1 = strongly disagree to 6 = strongly agree). Sum of all answers was measured as interpersonal generosity aka prosociality.
20	Wenner & Randall (2016)	Primary Prevention Awareness, Attitudes and Usage Scale (Swisher et al., 1984)	Participants were shown 5 prosocial behaviors and asked to rate how often they conducted those behaviors in the past year (for example: "Did volunteer work"). Items were rated on a 6-point scale, ranging from 1 (never) to 6 (almost every day or more). The mean value was measured as prosociality.
21	Anise (2006), study 2	Adapted Altruism Scale (Morgan & Miller, 2002)	An 11-item questionnaire was used to assess the altruistic level of the participants from affect, beliefs, and behaviors (For example: "If I could help save somebody's life, I would do everything possible"). Participants rated the items on a 7-point scale and the mean value of all answers was used as prosocial measures (higher values indicate higher altruism).

Note. SRM = Self-reported measure

Table S6

Overview of All Variables Included in the Analysis

Variable	Coding scheme/ further relevant information
ID	First author + years
Study/Article	
Country of first author affiliation	
Sample size	Either for the whole sample or for every age group
Age range	Either for the whole sample or for every age group
Mean age	Either for the whole sample or for every age group
SD age	Either for the whole sample or for every age group
Number of females	Either for the whole sample or for every age group
Number of males	Either for the whole sample or for every age group
Nationality of the sample	Specific country
Source	Database, Database but unpublished effect, DGPs, Author, Special Issue PsychAging, Cited Sparrow, reference list Meta-analysis
Measure	Task versus SRM
Description measure	e.g., Dictator Game, Donation Task, Ultimatum Game, Public Good Game, Altruism Scale etc.
Applied incentive	Behavior-contingent incentive versus hypothetical decision
Type of incentive*	Monetary versus non-monetary incentive
Role played*	Active versus passive role played in the task
Deception*	Deception versus no deception used
Type of deception*	What exact type of deception was used
Feedback*	Feedback versus no feedback regarding the behavior of the interaction partner
Group size*	Group size used in the tasks
Cognitive functioning*	Measure for cognitive functioning, and corresponding mean value
Data type	Published versus unpublished effect
Repetition of interaction	Repetition versus one-shot
Setting	Online, lab, lab in field
<hr/>	
Effect size regarding age as linear term	
Raw correlation coefficient	
Type of correlation	Pearson, Spearman, Point-Biserial, Biserial
<hr/>	
Effect size regarding age group comparison	
Mean of prosocial measure per group	
SD of prosocial measure per age group	
Standardized mean difference	

Effect size regarding age as quadratic term

Standardized beta coefficient For the quadratic and linear term

SE of standardized beta coefficient For the quadratic and linear term

Note. Variables marked with an asterisk could not be analyzed as moderators in meta regression models, due to reduced information available and thus too little data.

Sensitivity Analyses

Table S7.1

Model Results of Sensitivity Analyses

w/out age min < 18 years	k	$\hat{\mu}$ (SE)	z-val	p	95% CI	95% PI	Q	t^2	I^2 (%)
MA _{cont-lin} - MA _{SRM} ¹	15	0.074 (0.034)	2.203	0.028	[0.008, 0.140]	[-0.164, 0.312]	104.742***	0.014	87.30
MA _{groups} - MA _{behav} : YA vs. OA ²	49	0.194 (0.051)	3.785	< 0.001	[0.093, 0.294]	[-0.440, 0.827]	276.530***	0.102	95.29
w/out YA age max > 35 years	k	$\hat{\mu}$ (SE)	z-val	p	95% CI	95% PI	Q	t^2	I^2 (%)
MA _{groups} - MA _{behav} : YA vs. MA ³	54	0.089 (0.026)	3.393	< 0.001	[0.038, 0.140]	[-0.214, 0.392]	246.758***	0.023	87.64
MA _{groups} - MA _{behav} : YA vs. OA ⁴	47	0.218 (0.052)	4.227	< 0.001	[0.117, 0.319]	[-0.416, 0.915]	260.028***	0.098	95.21
w/out MA age min < 36 years	k	$\hat{\mu}$ (SE)	z-val	p	95% CI	95% PI	Q	t^2	I^2 (%)
MA _{groups} - MA _{behav} : YA vs. MA ⁵	50	0.057 (0.019)	2.940	0.003	[0.019, 0.095]	[-0.128, 0.241]	159.714***	0.008	73.45
MA _{groups} - MA _{behav} : MA vs. OA ⁶	38	0.050 (0.026)	1.903	0.057	[-0.001, 0.101]	[-0.196, 0.296]	181.366***		80.68
w/out age min OA < 60	k	$\hat{\mu}$ (SE)	z-val	p	95% CI	95% PI	Q	t^2	I^2 (%)
MA _{groups} - MA _{behav} : YA vs. OA ⁷	47	0.213 (0.056)	3.800	< 0.001	[0.103, 0.323]	[-0.477, 0.903]	283.427***	0.121	96.12
w/out outliers/influential studies	k	$\hat{\mu}$ (SE)	z-val	p	95% CI	95% PI	Q	t^2	I^2 (%)
MA _{cont-lin} - MA _{behav} ⁸	88	0.035 (0.010)	3.580	< 0.001	[0.016, 0.053]	[-0.100, 0.169]	340.497***	0.005	84.12
MA _{groups} - MA _{behav} ⁹ : YA vs. MA	53	0.056 (0.018)	3.025	0.002	[0.020, 0.092]	[-0.122, 0.234]	160.361***	0.008	71.07
MA _{groups} - MA _{behav} ¹⁰ : YA vs. OA	49	0.162 (0.039)	4.141	< 0.001	[0.085, 0.238]	[-0.291, 0.614]	214.264***	0.052	91.14
incl. outliers/influential studies	k	$\hat{\mu}$ (SE)	z-val	p	95% CI	95% PI	Q	t^2	I^2 (%)
MA _{cont-quad} - MA _{behav} ¹¹	27	-0.070 (0.041)	-1.701	0.089	[-0.150, -0.011]	[-0.223, 0.083]	23.33	0.004	22.51%

Note. w/out = without; incl. = inclusion; w/out age min < 18 years = Exclusion of studies where the minimum age is younger than 18 years; w/out YA age max > 35 years = Exclusion of studies where younger adults age range exceeds 35 years; w/out MA age min < 36 years = Exclusion of studies where middle-old adults age range goes below 36 years; w/out age min OA < 60 = Exclusion of studies where older adults age range goes below 60 years; All models indicate RE models if not otherwise indicated.

¹Exclusion of Gibson (2008), minimum age 17 years.

²Exclusion of Bailey et al. (2018), minimum age 17 years.

³Exclusion of Romano et al. (2021), maximum age of YA 39 years.

⁴Exclusion of Gong et al. (2019), Roalf et al. (2012), and Romano et al. (2021), maximum age of YA respectively 39, 44, 45 years.

⁵Exclusion of Foulkes et al. (2018), Horn & Freund (2021, Study 2), House et al. (2020), Moersdorf et al. (2018), and Tognetti et al. (2013), minimum age of MA respectively, 26, 35, 35, 35, 35 years.

⁶Multi-level model; Exclusion of Horn & Freund (2021, Study 2), House et al. (2020), Moersdorf et al. (2018), and Tognetti et al. (2013), minimum age of MA 35 years.

⁷Exclusion of Harlé & Sanfey (2012), Mienaltowski, (2009 study 1), and Mienaltowski & Wichman (2020), minimum age of OA respectively 55, 56, and 58 years.

⁸Exclusion of Matsumoto et al. (2016)/Yamagishi et al. (2016), according to Cook's distances overly influential.

⁹Exclusion of Foulkes et al. (2018) and Moersdorf et al. (2018), according to Cook's distances overly influential.

¹⁰Exclusion of Fernandes et al. (2019), according to studentized residuals and Cook's distances outlier/overly influential.

¹¹Inclusion of Cutler et al. (2021), sample 1, Liu et al. (2022), Prolific sample, Rieger & Mata (2015), and Sircar et al. (2018)/Voors (2018).

Table S7.2

Model Results of Sensitivity Analyses

$MA_{\text{cont-lin}} - MA_{\text{behav}}$	k	$\hat{\mu}$ (SE)	z-val	p	95% CI	95% PI	Q
Aggregated	89	0.04 (0.01)	3.79	< 0.01***	[0.02, 0.06]	[-0.11, 0.18]	375.22***
Multi-Level	116	0.04 (0.01)	3.74	< 0.01***	[0.02, 0.06]	[-0.12, 0.19]	510.76***
$MA_{\text{cont-lin}} - MA_{\text{SRM}}$	k	$\hat{\mu}$ (SE)	z-val	p	95% CI	95% PI	Q
Aggregated	16	0.09 (0.03)	2.52	0.02*	[0.02, 0.15]	[-0.16, 0.34]	111.20*
Multi-Level	19	0.09 (0.03)	2.80	< 0.01**	[0.03, 0.15]	[-0.16, 0.34]	137.75***
$MA_{\text{cont-quad}} - MA_{\text{behav}}$	k	$\hat{\mu}$ (SE)	z-val	p	95% CI	95% PI	Q
Aggregated (w/o outlier) ^α	23	-0.14 (0.05)	-2.50	0.01*	[-0.24, -0.03]	[-0.24, -0.03]	8.18
Multi-Level (w/o outlier) ^α	31	-0.13 (0.04)	-3.06	0.002**	[-0.22, -0.05]	[-0.22, 0.05]	2.91
Multi-Level (incl. outlier)	37	-0.13 (0.03)	-3.80	< 0.01***	[-0.19, -0.06]	[-0.19, -0.06]	4.26
$MA_{\text{groups}} - MA_{\text{behav}}:$ YA vs. MA	k	$\hat{\mu}$ (SE)	z-val	p	95% CI	95% PI	Q
Aggregated	55	0.09 (0.03)	3.42	< 0.01***	[0.04, 0.14]	[-0.21, 0.39]	246.83***
Multi-Level	74	0.09 (0.02)	3.63	< 0.01***	[0.04, 0.14]	[-0.22, 0.39]	333.88***
$MA_{\text{groups}} - MA_{\text{SRM}}:$ YA vs. MA	k	$\hat{\mu}$ (SE)	z-val	p	95% CI	95% PI	Q
Aggregated	5	0.23 (0.10)	2.30	0.02*	[0.03, 0.42]	[-0.18, 0.64]	25.62***
Multi-Level	8	0.26 (0.09)	2.80	<0.01**	[0.08, 0.45]	[-0.19, 0.71]	42.16***
$MA_{\text{groups}} - MA_{\text{behav}}:$ YA vs. OA	k	$\hat{\mu}$ (SE)	z-val	p	95% CI	95% PI	Q
Aggregated	50	0.20 (0.05)	3.94	<0.01***	[0.10, 0.31]	[-0.45, 0.86]	285.21***
Multi-Level	66	0.21 (0.05)	3.91	< 0.01***	[0.10, 0.31]	[-0.47, 0.89]	338.34***
$MA_{\text{groups}} - MA_{\text{SRM}}:$ YA vs. OA	k	$\hat{\mu}$ (SE)	z-val	p	95% CI	95% PI	Q
Aggregated	7	0.48 (0.24)	2.02	0.04*	[0.01, 0.95]	[-0.77, 1.73]	63.25***
Multi-Level	9	0.48 (0.23)	2.04	0.04*	[0.02, 0.94]	[-0.76, 1.71]	71.34***
$MA_{\text{groups}} - MA_{\text{behav}}:$	k	$\hat{\mu}$ (SE)	z-val	p	95% CI	95% PI	Q

MA vs. OA							
Aggregated	31	0.05 (0.025)	2.05	0.04*	[0.002, 0.10]	[-0.15, 0.25]	155.59***
Multi-Level	43	0.05 (0.03)	1.80	0.07	[-0.004, 0.10]	[-0.20, 0.29]	187.50***

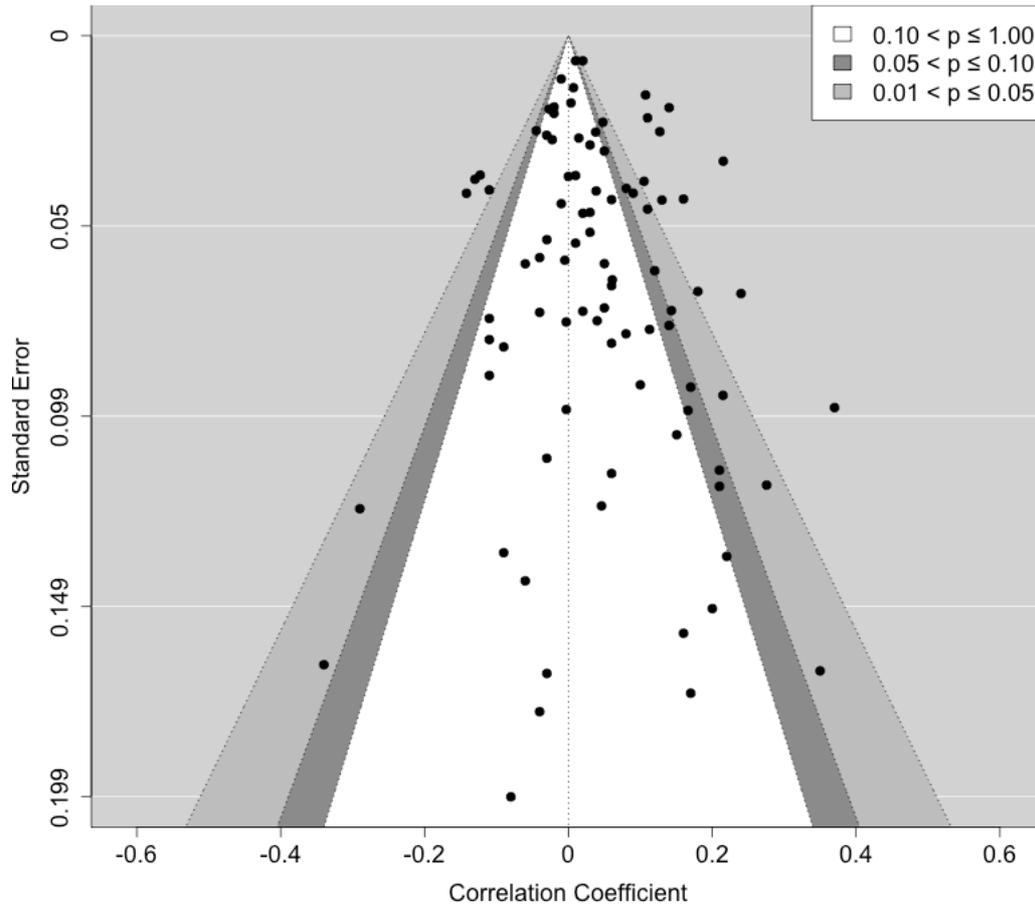
Note. Random effect meta-analyses including aggregated effect sizes (*Aggregated*) versus multi-level meta-analyses (*Multi-Level*). In multi-level meta-analyses individual effect sizes are nested within studies via the random effect structure. w/out = without; incl. = inclusion.

^a Exclusion of [Cutler et al. \(2021\)](#), sample 1, [Liu et al. \(2022\)](#), Prolific sample, [Rieger & Mata \(2015\)](#), and [Sircar et al. \(2018\)/Voors \(2018\)](#).

Meta-Analysis $MA_{cont-lin} - MA_{behav}$

Figure S1

Contour-Enhanced Funnel Plot: $MA_{cont-lin} - MA_{behav}$



Note. The funnel plot is centered at zero (vertical line). The standard errors are indicated on the vertical axis. The shaded regions represent the level of significance with respect to included studies. $k = 89$, $n = 100,613$.

Table S8*Meta-Regressions Regarding $MA_{cont-lin} - MA_{behav}$*

Moderator	k	Q_M	Df	$B (SE)$		
Sample Size	89	0.366	1	-0.000001 (0.000002)		
Year	88	0.939	1	-0.003 (0.003)		
% Females	84	0.082	1	-0.0002 (0.0009)		
Mean age	89	2.899	1	-0.002 (0.001)		
Moderator	k_{total}	Q_M	Df	Factor level	k	$B (SE)$
Publication status	87	0.064	1	Intercept (Published)	36	0.033 (0.015)*
				Unpublished	51	0.005 (0.020)
Setting	84	1.125	2	Intercept (Lab)	22	0.045 (0.025)
				Lab in field	9	-0.039 (0.039)
				Online	53	-0.006 (0.027)
Measure	74	11.20	6	Intercept (DG)	18	0.016 (0.022)
				DP	18	0.041 (0.030)
				Other ^a	5	0.125 (0.049)*
				PD	9	0.023 (0.036)
				PGG	7	0.029 (0.038)
				SVO	9	-0.016 (0.033)
Interaction	54	3.720	1	Intercept (One-shot)	39	0.045 (0.014)***
				Repeated	15	-0.053 (0.028)
Incentive	74	4.115*	1	Intercept (Hypothetical)	17	-0.001 (0.019)
				Behavior-contingent	57	0.045 (0.022)*
Continent	57	2.951	4	Intercept (Africa)	3	0.014 (0.057)
				Asia	5	0.106 (0.078)
				Europe	30	0.012 (0.062)
				North America	17	0.033 (0.063)
				Oceania	2	0.053 (0.111)

Correlation	87	5.305	3	<i>Intercept</i> (Biserial)	2	0.189 (0.080)*
				Pearson	30	-0.160 (0.081)*
				Point-biserial	9	-0.121 (0.085)
				Spearman	46	-0.161 (0.081)*

Note. Year = Year of publication/data collection; DG = Dictator Game; DP = Donation paradigm; PD = Prisoner's dilemma; SVO = Social value orientation; UG = Ultimatum game.

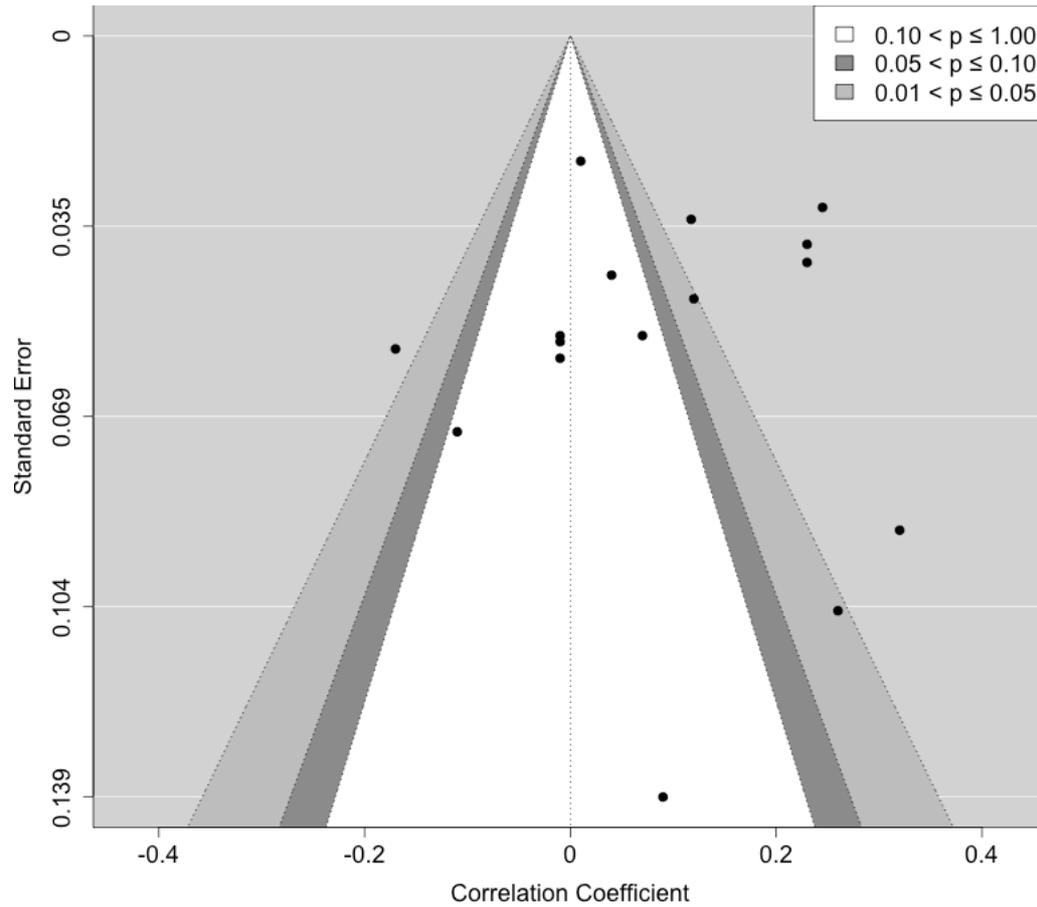
^a Other defined as individual measures with respect to the following studies: [Alonso-Ferres et al. \(2020\), study 2](#); [Hubbard et al. \(2016\)](#), [Körner & Schütz \(2021 study 4\)](#), [Rosen et al. \(2016\)](#), and [Solomon & Zeitzer \(2019\)](#)

*** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$

Meta-Analysis $MA_{cont-lin} - MA_{SRM}$

Figure S2

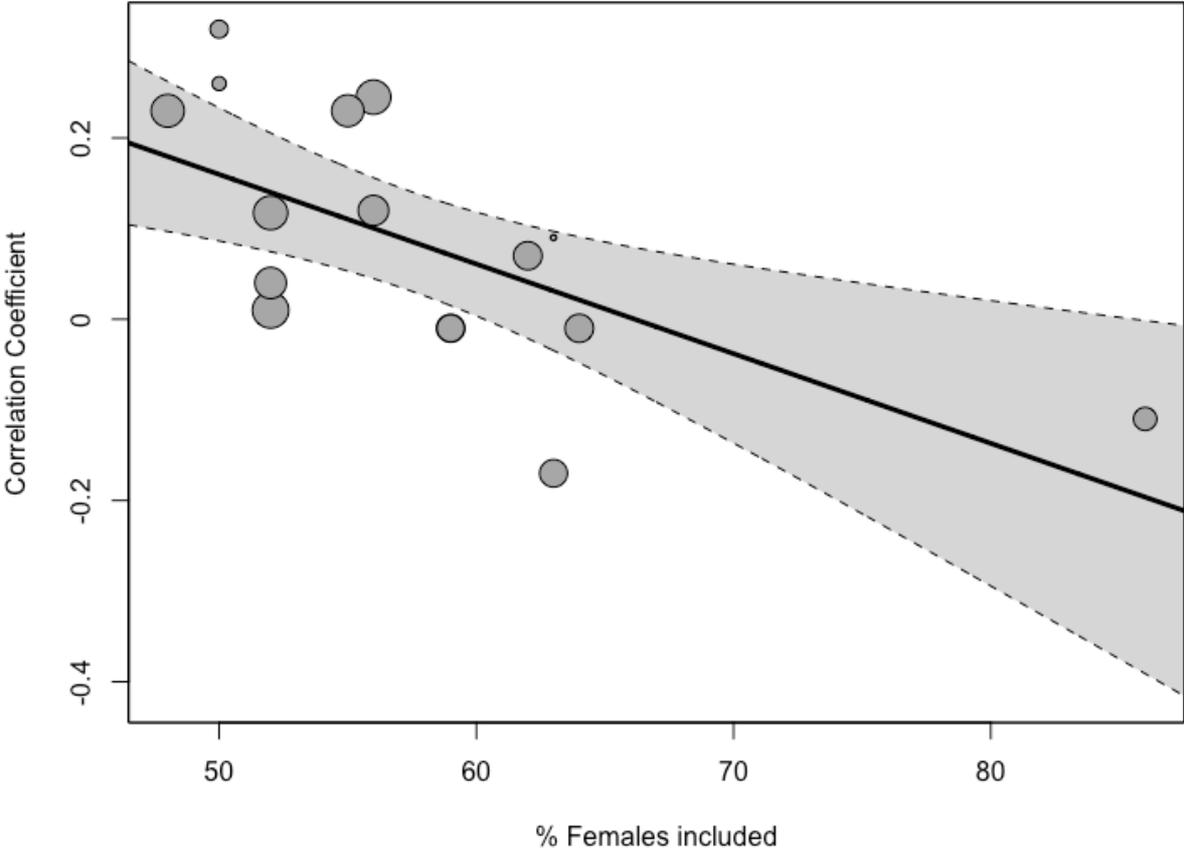
Contour-Enhanced Funnel Plot: $MA_{cont-lin} - MA_{SRM}$



Note. The funnel plot is centered at zero (vertical line). The standard errors are indicated on the vertical axis. The shaded regions represent the level of significance with respect to included studies. $k = 16$, $n = 7064$.

Figure S3

Moderation of Gender Contribution on $MA_{cont-lin} - MA_{SRM}$



Note. Scatter plot representing the observed outcomes (correlation coefficients) of the different included studies against the sex contribution (i.e., percentage females). The points indicate the included studies, with a size proportional to the weight of the study referring to the analysis. 95% CI bounds are indicated.

Table S9*Meta-Regressions Regarding MA_{cont-lin} - MA_{SRM}*

Moderator	k	Q _M	Df	B (SE)		
Sample Size	16	0.046	1	-0.00002 (0.00008)		
Year	16	1.292	1	0.009 (0.008)		
% Females	16	8.761**	1	-0.010 (0.003)**		
Mean age	16	0.340	1	-0.003 (0.004)		
Moderator	k _{total}	Q _M	Df	Factor level	k	B (SE)
Publication Status	16	0.449	1	Intercept (Published)	7	0.057 (0.055)
				Unpublished	9	0.047 (0.070)
Setting	12	5.851	2	Intercept (Lab)	3	0.072 (0.069)
				Lab in field	2	-0.163 (0.107)
				Online	7	0.058 (0.080)
Measure (Full model)	14	4.819	3	Intercept (Altruism Scale ^α)	5	0.041 (0.060)
				HEXACO-PI-R-100 ^β	2	0.189 (0.102)
				Other ^γ	5	0.009 (0.082)
				Prosocialness Scale ^δ	2	-0.041 (0.102)
Measure (Reduced model ^ε)	12	28.041***	3	Intercept (Altruism Scale ^α)	3	0.035 (0.041)
				HEXACO-PI-R-100 ^β	2	0.195 (0.053)***
				Other ^γ	5	0.012 (0.050)
				Prosocialness Scale ^δ	2	-0.030 (0.051)
Continent	10	1.197	2	Intercept (Asia)	2	-0.022 (0.115)
				Europe	3	0.096 (0.148)
				North America	5	0.152 (0.139)
Correlation	16	0.079	1	Intercept (Pearson)	11	0.080 (0.042)
				Spearman	5	0.021 (0.076)

Note. Year = Year of publication/data collection.

^α Rushton et al. (1981)

^β Lee & Ashton (2016)

^γ Other defined as the following measures, which were only used in one specific study: ‘altruistic and egoistic behavioral tendencies’ from Li & Siu (2019, study 2), ‘Helping Behavior in Everyday Life Scale’ from Alonso-Ferres et al. (2020, study 1), NEO-PI-R from Strobel et al. (2018), ‘Primary Prevention Awareness, Attitudes and Usage Scale’ from Wenner & Randall (2016), ‘Scale of personality descriptive adjectives related to altruistic behavior’ from Hubbard et al. (2016)

^δ Caprara et al. (2005)

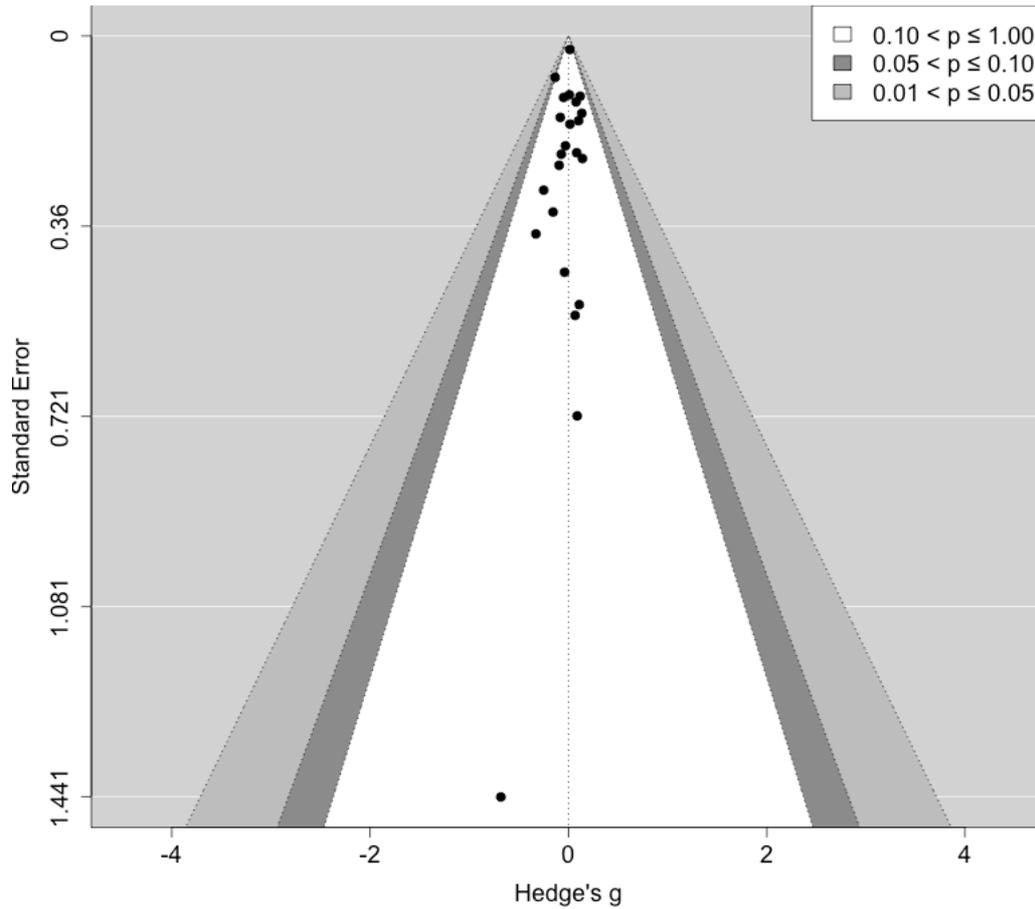
^ε Exclusion of Gibson (2008), and Anise (2006) (outliers/overly influential).

*** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$

Meta-Analysis $MA_{cont-quad} - MA_{behav}$

Figure S4

Contour-Enhanced Funnel Plot: $MA_{cont-quad} - MA_{behav}$



Note. The funnel plot is centered at zero (vertical line). The standard errors are indicated on the vertical axis. The shaded regions represent the level of significance with respect to included studies. $k = 23$ studies, $n = 50,613$.

Table S10*Meta-Regressions Regarding MA_{cont-quad} - MA_{behav}*

Moderator	k	Q _M	Df	B (SE)		
Linear age term	23	32.522***	1	-0.728 (0.128)***		

Moderator	k _{total}	Q	Df	Factor level	B (SE)	
Sample Size	23	32.80***	2	Linear age term	-0.691 (0.145)***	
				Sample size	0.000002 (0.000003)	
Year	23	32.527***	2	Linear age term	-0.731 (0.135)***	
				Year	0.001 (0.017)	
% Females	21	22.323***	2	Linear age term	-0.687 (0.145)***	
				% Females	-0.0002 (0.011)	
Mean age	23	32.812***	2	Linear age term	-0.763 (0.144)***	
				Mean age	-0.005 (0.009)	

Moderator	k _{total}	Q _M	Df	Factor level	k	B (SE)
Setting	19	12.431**	2	<i>Intercept</i> (online)	17	-0.061 (0.039)
				<i>Linear age term</i>		-0.612 (0.174)***
				<i>Lab in field</i>	2	-0.010 (0.384)
Measure	18	31.048***	5	<i>Intercept</i> (DG)	4	-0.084 (0.224)
				Linear age term		-0.743 (0.174)***
				DP	4	0.163 (0.240)
				PD	4	0.107 (0.245)
				PGG	2	0.159 (0.272)
				SVO	4	0.209 (0.241)
Interaction	16	14.350***	2	<i>Intercept</i> (One-shot)	12	0.074 (0.060)
				Linear age term		-0.624 (0.183)***
				Repeated	4	0.060 (0.097)
Incentive	20	32.028***	2	<i>Intercept</i> (Hypothetical)	4	0.063 (0.048)
				Linear age term		-0.794 (0.158)***
				Behavior-contingent	16	0.016 (0.074)
Continent	11	11.438*		<i>Intercept</i> (Africa)	2	0.084 (0.182)

				Linear age term		-0.435 (0.138)**
				Europe	5	-0.079 (0.209)
				North America	4	-0.148 (0.227)
Regression	21	32.860***	2	<i>Intercept</i> (Logistic)	4	0.064 (0.194)
				Linear age term		-0.791 (0.156)***
				Linear	17	-0.012 (0.204)

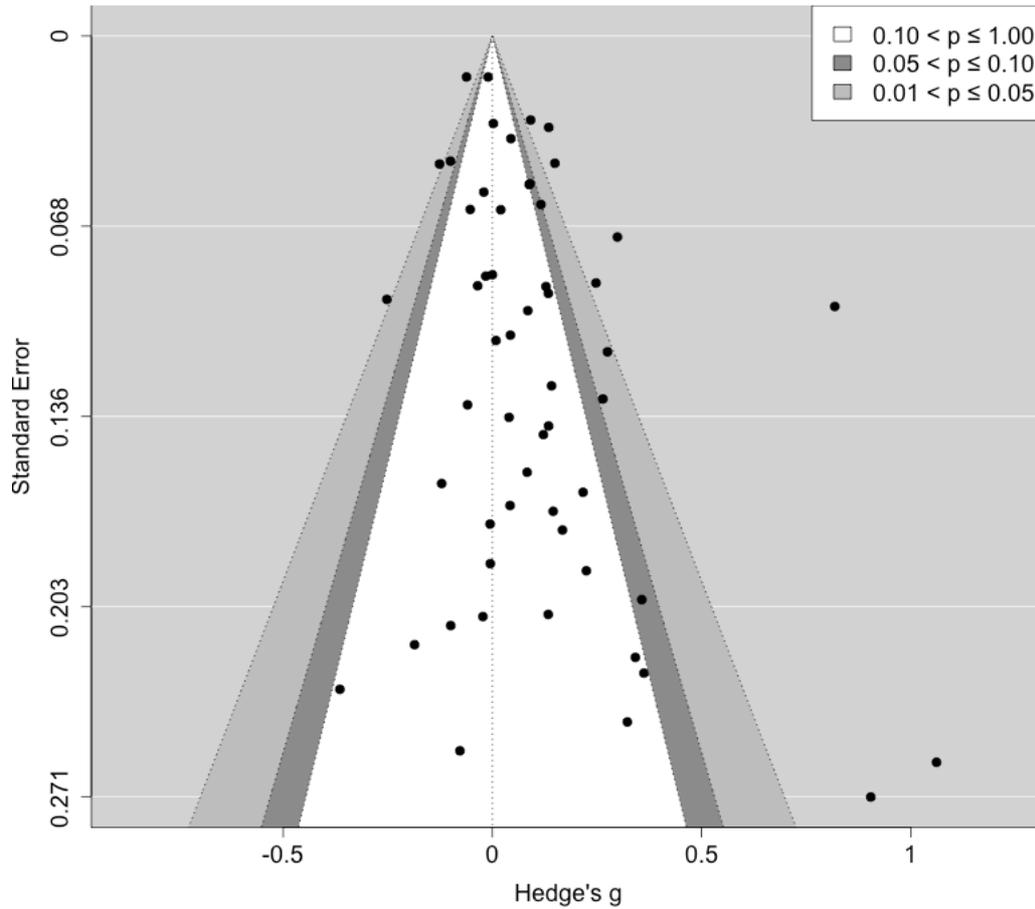
Note. All meta-regression models were calculated without the following studies, as they were detected to be outliers/overly influential in the original model (including the quadratic and linear age term, see also sensitivity analyses Table S7): [Cutler et al. \(2021, sample 1\)](#), [Liu et al. \(2022, Prolific sample\)](#), [Rieger & Mata \(2015\)](#), and [Sircar et al. \(2018\)/Voors \(2018\)](#). No meta-regression including publication status was conducted as only one study published the effect in their initial article. Year = Year of publication/data collection. DG = Dictator game. DP = Donation paradigm. PD = Prisoner's dilemma. SVO = Social value orientation.

*** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$

Meta-Analysis MA_{groups} – MA_{behav} in YA vs. MA

Figure S5

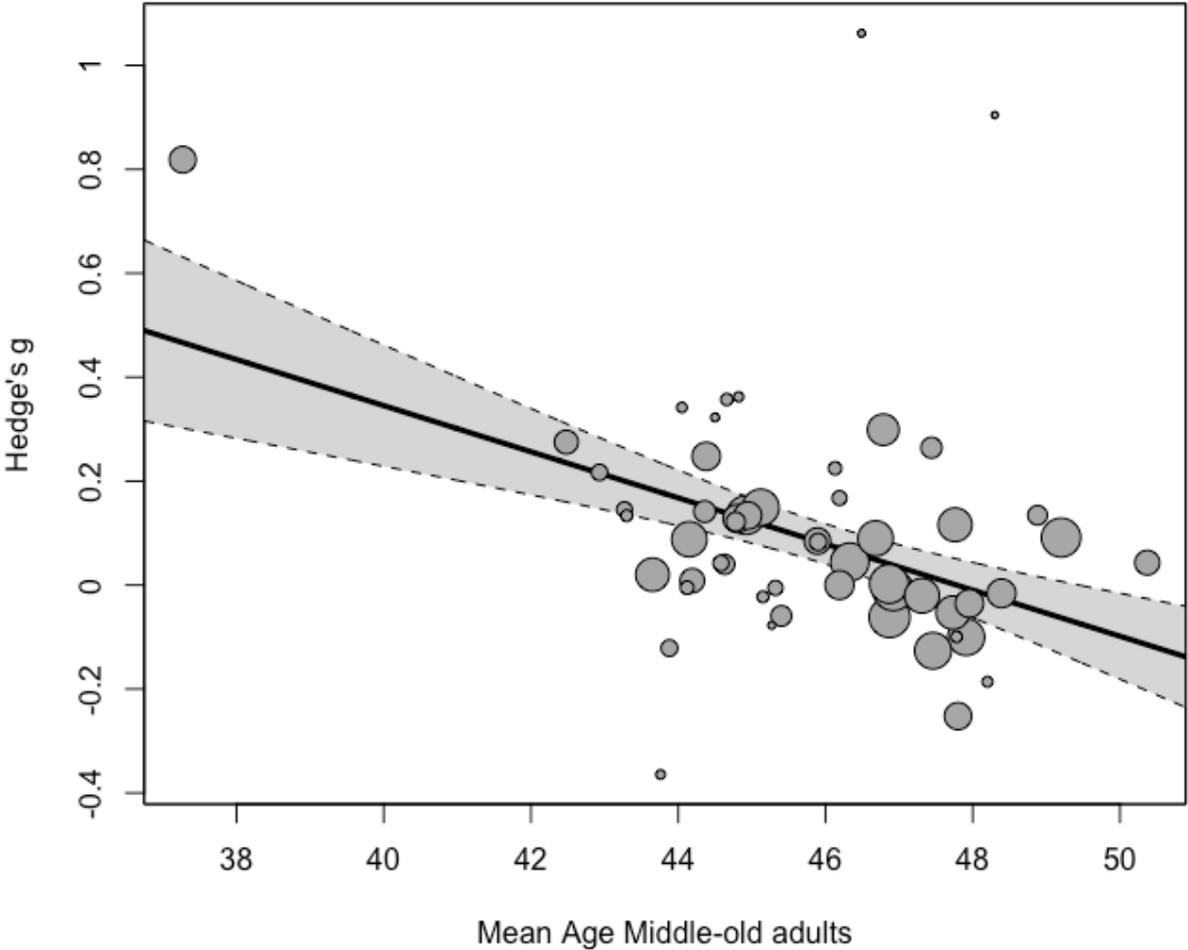
Contour-Enhanced Funnel Plot: MA_{groups} - MA_{behav} YA vs. MA



Note. The funnel plot is centered at zero (vertical line). The standard errors are indicated on the vertical axis. The shaded regions represent the level of significance with respect to included studies. $k = 55$ studies, $n_{YA} = 35,925$, $n_{MA} = 36,892$.

Figure S6

Moderation of Mean Age (MA) on $MA_{groups} - MA_{behav}$ in YA vs. MA



Note. Scatter plot representing the observed outcomes (hedge's g) of the different included studies against the mean age of the middle-old sample. The points indicate the included studies, with a size proportional to the weight of the study referring to the analysis. 95% CI bounds are indicated.

Table S11*Meta-Regression Regarding MA_{groups} - MA_{behav} in YA vs. MA*

Moderator	k	Q _M	Df	B (SE)
Sample size YA	55	1.943	1	-0.00002 (0.00001)
Sample size MA	55	2.122	1	-0.00002 (0.00001)
Publication Year	55	0.662	1	-0.006 (0.007)
% Females YA	50	0.642	1	-0.001 (0.001)
% Females MA	50	0.288	1	0.001 (0.002)
Mean age YA	55	3.764	1	-0.029 (0.015)
Mean age MA	41	22.567***	1	-0.044 (0.009)***

Moderator	k _{total}	Q _M	Df	Factor levels	k	B (SE)
Publication status	53	0.282	1	Intercept (Published)	24	0.101 (0.039)*
				Unpublished	29	-0.028 (0.054)
Setting	52	3.926	2	Intercept (Lab)	6	0.227 (0.083) **
				Lab in field	10	-0.115 (0.102)
				Online	36	-0.167 (0.088)
Measure (Full model)	43	15.844**	5	Intercept (DG)	12	0.116 (0.060)
				DP	7	-0.040 (0.088)
				Other ^α	4	0.290 (0.113)*
				PD	8	-0.110 (0.085)
				PGG	7	-0.034 (0.090)
				SVO	5	-0.133 (0.086)
Measure (Reduced model ^β)	42	6.707		Intercept (DG)	12	0.117 (0.053)*
				DP	7	-0.070 (0.072)
				Other ^α	3	0.073 (0.115)
				PD	8	-0.118 (0.072)
				PGG	7	-0.032 (0.076)
				SVO	5	-0.127 (0.070)
Interaction	37	5.116*	1	Intercept (One-shot)	30	0.091 (0.027)***

Incentive (Full model)	43	4.604*	1	Repeated	7	-0.118 (0.052)*
				Intercept (Hypothetical)	8	-0.030 (0.037)
				Behavior-contingent	35	0.093 (0.043)*
Incentive (Reduced model ^γ)	39	0.074	1	Intercept (Hypothetical)	4	0.039 (0.089)
				Behavior-contingent	35	0.025 (0.092)
Continent	29	2.053	4	Intercept (Africa)	3	0.061 (0.124)
				Asia	2	0.178 (0.204)
				Europe	10	0.119 (0.144)
				North America	12	0.041 (0.141)
				Oceania	2	-0.095 (0.237)

Note. YA = Younger adults. MA = Middle-old adults. Year = Year of publication/data collection. DG =

Dictator Game. DP = Donation paradigm. PD = Prisoner's dilemma. SVO = Social value orientation.

^α Other defined as individual measures, from [Alonso-Ferres et al. \(2020, study 2\)](#), [Foulkes et al. \(2018\)](#), [Körner & Schütz \(2021, study 4\)](#), and [Solomon & Zeitzer \(2019\)](#)

^β Exclusion of [Foulkes et al. \(2018\)](#) as detected to be outlier/overly influential.

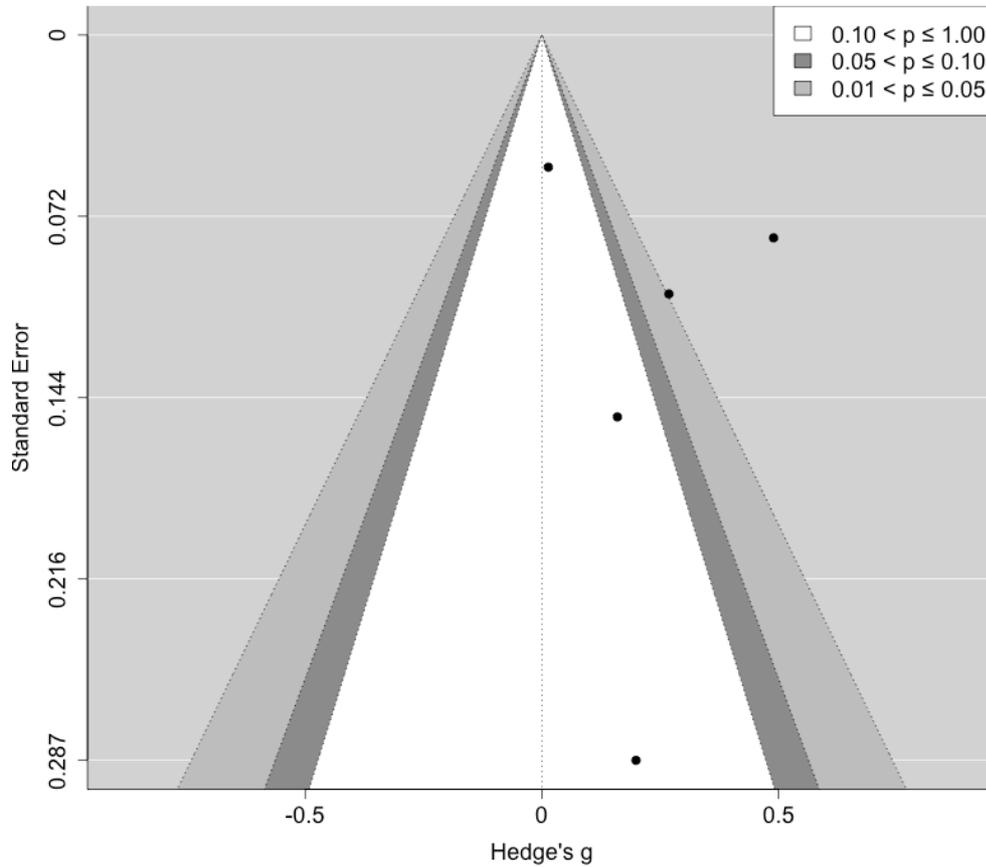
^γ Exclusion of [Cutler et al. \(2021\)](#), both samples & [Froehlich et al. \(2021\)](#) as detected to be outliers/overly influential.

*** p < 0.001, ** p < 0.01, * p < 0.05.

Meta-Analysis MA_{groups} – MA_{SRM} in YA vs. MA

Figure S7

Contour-Enhanced Funnel Plot: MA_{groups} – MA_{SRM} in YA vs. MA

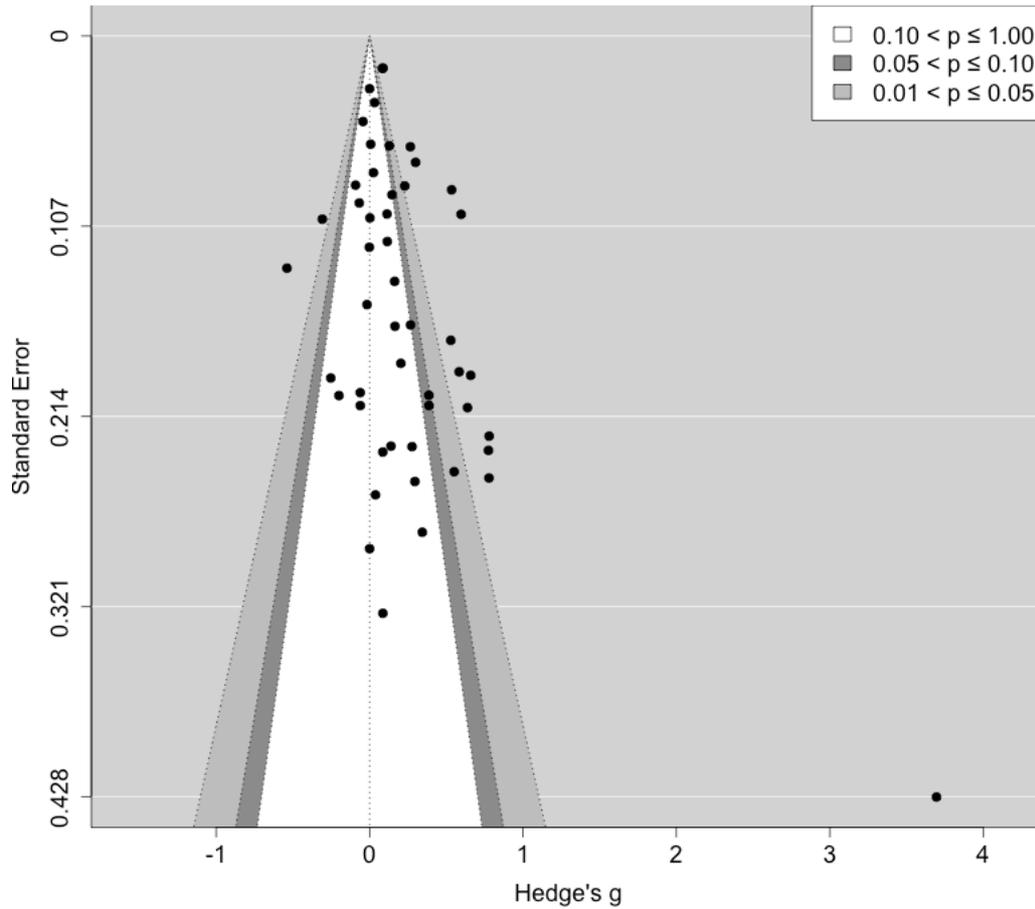


Note. The funnel plot is centered at zero (vertical line). The standard errors are indicated on the vertical axis. The shaded regions represent the level of significance with respect to included studies. $k = 5$, $n_{YA} = 1395$, $n_{MA} = 1284$.

Meta-Analysis $MA_{groups} - MA_{behav}$ in YA vs. OA

Figure S8

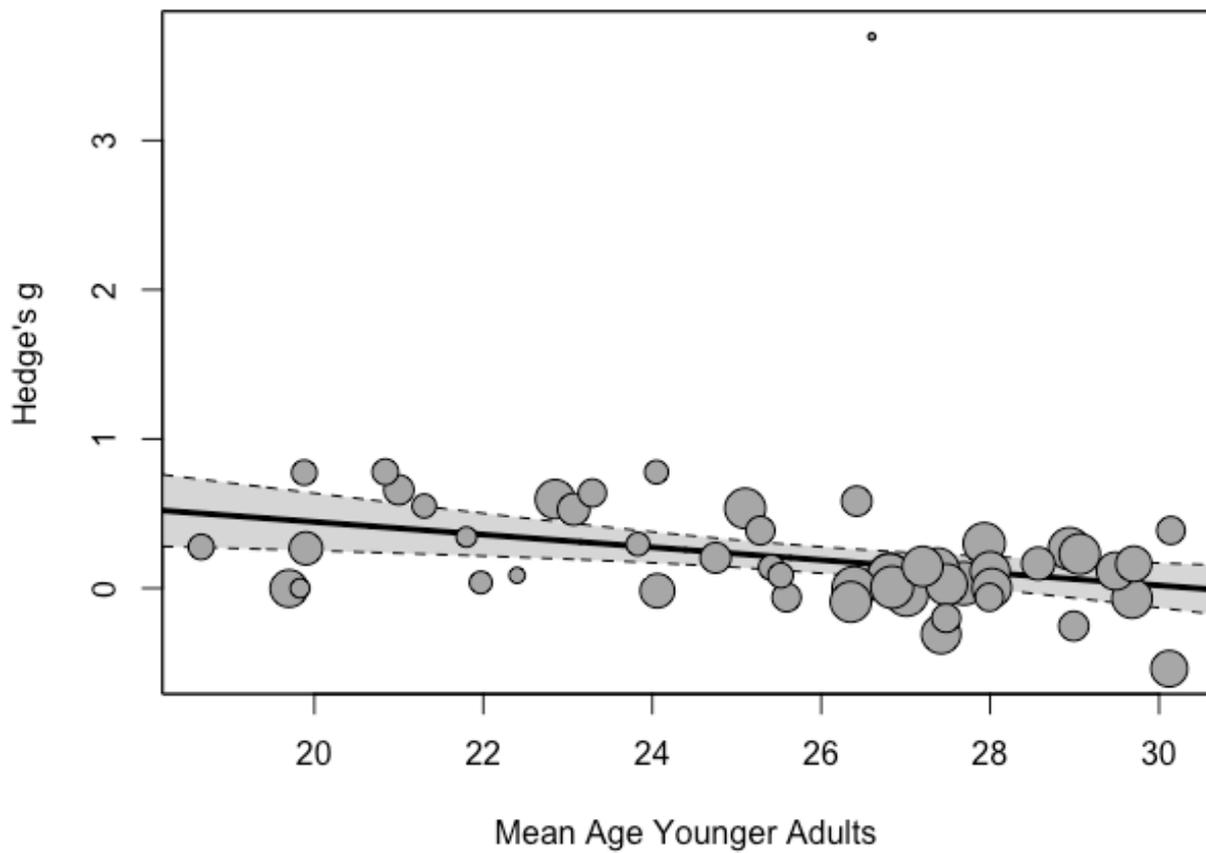
Contour-Enhanced Funnel Plot: $MA_{groups} - MA_{behav}$ in YA vs. OA



Note. The funnel plot is centered at zero (vertical line). The standard errors are indicated on the vertical axis. The shaded regions represent the level of significance with respect to included studies. $k = 50$, $n_{YA} = 32,996$, $n_{OA} = 18,028$.

Figure S9

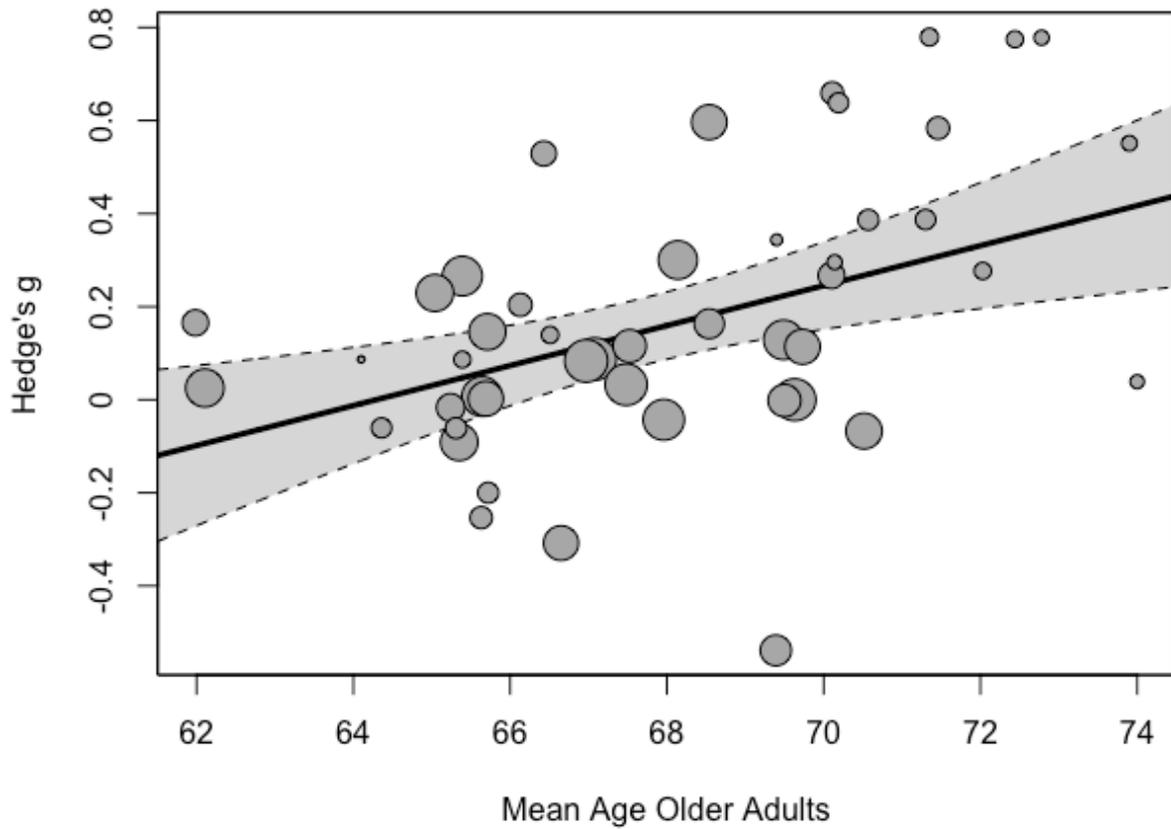
Moderation of Mean Age (YA) on $MA_{groups} - MA_{behav}$ in YA vs. OA



Note. Scatter plot representing the observed outcomes (hedge's g) of the different included studies against the mean age of the younger sample. The points indicate the included studies, with a size proportional to the weight of the study referring to the analysis. 95% CI bounds are indicated.

Figure S10

Moderation of Mean Age (OA) on $MA_{groups} - MA_{behav}$ in YA vs. OA



Note. Scatter plot representing the observed outcomes (hedge's g) of the different included studies against the mean age of the older sample. The points indicate the included studies, with a size proportional to the weight of the study referring to the analysis. 95% CI bounds are indicated.

Table S12*Meta-Regression Regarding $MA_{groups} - MA_{behav}$ in YA vs. OA*

Moderator	k	Q_M	Df	B (SE)
Sample size YA	50	0.808	1	-0.00002 (0.00003)
Sample size OA	50	0.921	1	-0.00005 (0.00005)
Publication year	50	0.186	1	-0.006 (0.014)
% Females YA	46	0.914	1	0.004 (0.004)
% Females OA	46	2.621	1	0.006 (0.004)
Mean age YA	50	8.155**	1	-0.043 (0.015)**
Mean age OA (Full model)	50	3.132	1	0.027 (0.015)
Mean age OA (Reduced model ^{a)})	47	9.672**	1	0.043 (0.014)**

Moderator	k_{total}	Q_M	Df	Factor level	k	B (SE)
Publication status	49	1.961	1	Intercept (Published)	35	0.259 (0.064)***
				Unpublished	14	-0.163 (0.116)
Setting	47	7.536*	2	Intercept (Lab)	18	0.376 (0.087)***
				Lab in field	7	-0.368 (0.153)*
				Online	22	-0.248 (0.110)*
Measure (Full model)	40	14.491*	6	Intercept (DG)	10	0.329 (0.133)*
				DP	9	-0.116 (0.188)
				Other ^β	4	0.100 (0.254)
				PD	6	-0.297 (0.209)
					2	-0.206 (0.310)
				SVO	5	-0.364 (0.216)
				UG	4	0.630 (0.276)*
Measure (Reduced model ^γ)	38	11.840	6	Intercept (DG)	10	0.337 (0.097)***
				DP	9	-0.141 (0.132)
				Other ^β	4	0.099 (0.189)
				PD	6	-0.300 (0.147)*
				PGG	1	-0.397 (0.327)
				SVO	5	-0.375 (0.148)*

				UG	3	0.016 (0.232)
Interaction (Full model)	31	2.691	1	Intercept (One-shot)	24	0.289 (0.086)***
				Repeated	7	-0.280 (0.171)
Interaction (Reduced model ^δ)	30	6.988**	1	Intercept (One-shot)	23	0.189 (0.042)***
				Repeated	7	-0.198 (0.075)**
Incentive	40	0.001	1	Intercept (Hypothetical)	12	0.145 (0.077)
				Behavior-contingent	28	-0.002 (0.093)
Continent	30	6.516	4	Intercept (Africa)	3	0.010 (0.173)
				Asia	2	-0.217 (0.296)
				Europe	9	0.259 (0.201)
				North America	13	0.255 (0.196)
				Oceania	3	0.460 (0.272)

Note. YA = Younger adults. OA = Older adults. Year = Year of publication/data collection. DG = Dictator Game. DP = Donation paradigm. PD = Prisoner's dilemma. SVO = Social value orientation. UG = Ultimatum Game.

^α Exclusion of [Beadle et al. \(2015\)](#), [Bruine de Bruin & Uqinaku \(2020\)](#), and [Fernandes et al. \(2019\)](#) as detected to be outliers/overly influential.

^β Other defined as individual measures, from [Bailey et al. \(2018\)](#), [Gaesser et al. \(2017\)](#), [Maxfield et al. \(2014, study 2\)](#), and [Rosen et al. \(2016\)](#)

^γ Exclusion of [Deutchman et al. \(2021\)](#) & [Fernandes et al. \(2019\)](#) as detected to be outliers/overly influential.

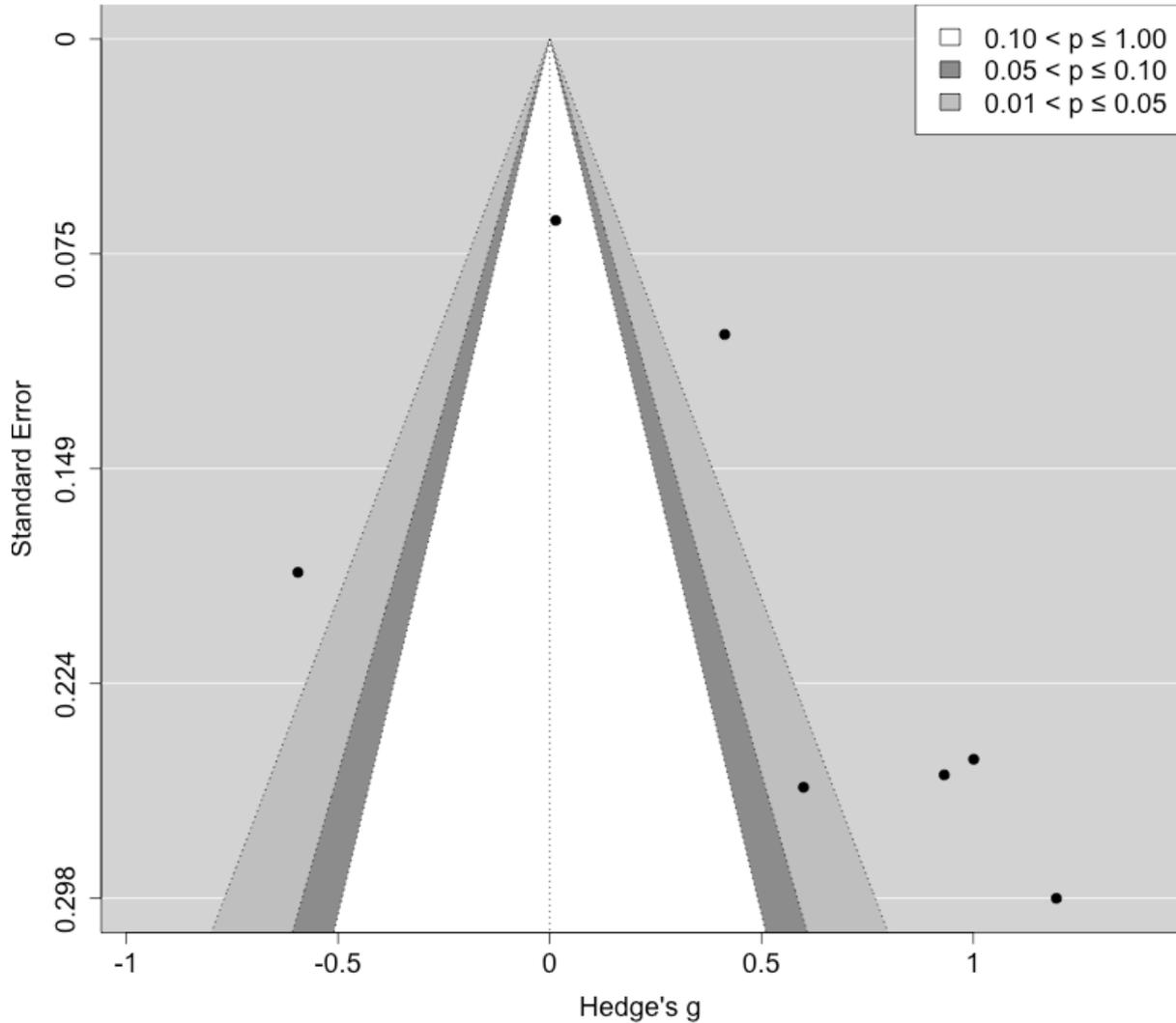
^δ Exclusion of [Fernandes et al. \(2019\)](#) as detected to be outliers/overly influential.

*** p < 0.001, ** p < 0.01, * p < 0.05.

Meta-Analysis $MA_{groups} - MA_{SRM}$ in YA vs. OA

Figure S11

Contour-Enhanced Funnel Plot: $MA_{groups} - MA_{SRM}$ in YA vs. OA

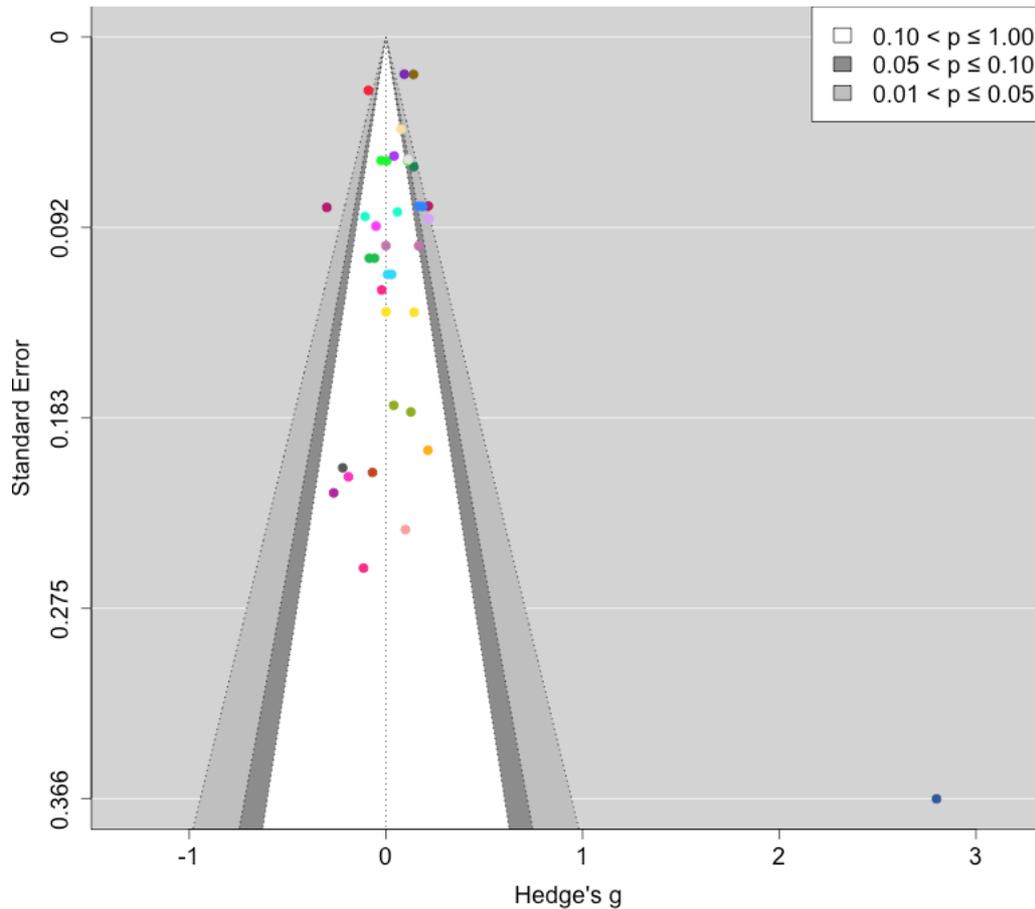


Note. The funnel plot is centered at zero (vertical line). The standard errors are indicated on the vertical axis. The shaded regions represent the level of significance with respect to included studies. $k = 7$, $n_{YA} = 914$, $n_{OA} = 794$.

Meta-Analysis $MA_{groups} - MA_{behav}$ in MA vs. OA

Figure S12

Contour-Enhanced Funnel Plot: $MA_{groups} - MA_{behav}$ in MA vs. OA



Note. The funnel plot is centered at zero (vertical line). The standard errors are indicated on the vertical axis. The shaded regions represent the level of significance with respect to included studies. The different colors represent the different studies, and corresponding effect sizes. $k = 43$, $n_{MA} = 35,130$, $n_{OA} = 18,816$.

Table S13*Meta-Regression Regarding MA_{groups} – MA_{behav} in MA vs. OA*

Moderator	k	Q _M	Df	B (SE)		
Sample size MA	43	0.453	1	0.00001 (0.0001)		
Sample size OA	43	0.125	1	0.00001 (0.00002)		
Publication year	42	0.142	1	0.003 (0.007)		
% Females MA	40	1.522	1	0.003 (0.002)		
% Females OA	40	2.926	1	0.003 (0.002)		
Mean age MA	43	0.003	1	-0.001 (0.017)		
Mean age OA	43	0.507	1	-0.008 (0.011)		

Moderator	k _{total}	Q _M	Df	Moderator	k	B (SE)
Publication status	43	0.567	1	Intercept (Published)	24	0.063 (0.035)
				Unpublished	19	-0.040 (0.053)
Setting (full model)	42	6.309*	2	Intercept (Lab)	3	0.369 (0.143)**
				Lab in field	11	-0.385 (0.154)*
				Online	28	-0.317 (0.146)*
Setting (reduced model ^a)	33	1.526	1	Intercept (Lab in field)	7	-0.038 (0.066)
				Online	26	0.085 (0.069)
Measure	42	7.009	5	Intercept (DG)	9	-0.054 (0.067)
				DP	8	0.045 (0.095)
				PD	6	0.015 (0.103)
				PGG	6	-0.096 (0.104)
				SVO	10	-0.059 (0.088)
				UG	3	0.291 (0.159)
Interaction (full model)	33	1.374	1	Intercept (One-shot)	22	0.069 (0.039)
				Repeated	11	-0.074 (0.063)
Interaction (reduced model)	27	4.711*		Intercept (One-shot)	16	0.071 (0.029)*
				Repeated	11	-0.087 (0.040)*

Incentive	36	0.105	1	Intercept (Hypothetical)	6	0.062 (0.049)
				Behavior-contingent	30	-0.018 (0.057)
Continent	20	0.655	2	Intercept (Africa)	6	-0.058 (0.090)
				Europe	8	0.090 (0.113)
				North America	6	0.072 (0.126)

Note. YA = Younger adults. MA = Middle-old adults. Year = Year of publication/data collection. DG =

Dictator Game. DP = Donation paradigm. PD = Prisoner's dilemma. SVO = Social value orientation.

*** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$.

^α Exclusion of Campos-Mercade et al. (2021), Rieger & Mata (2015), Fernandes et al. (2019), Romano et al. (2021), Sze et al. (2012), Tinghög et al. (2016) as detected to be outliers/overly influential.

Measure-Specific Sub-Analyses for MA_{con-lin}, MA_{con-quad}, and MA_{groups}

Whenever a measure was used in at least $k = 5$ studies, a RE model including only effects of age on this specific measure was calculated in the same manner as described in the section “Analytical Strategies” in the main article (see Figure 2 in the main article for an overview).

Table S14

Measure-Specific Sub-Analyses Regarding MA_{cont-lin} – MA_{behav} – MA_{SRM}

Measure	k	n	$\hat{\mu}$ (SE)	z -val	p	95% CI	95% PI	Q	t^2	I^2 (%)
EG	57	27,734	0.041 (0.012)	3.468	< 0.001	[0.018, 0.064]	[-0.086, 0.168]	187.678***	0.004	68.25
DG (Full model)	26	10,539	0.046 (0.021)	2.245	0.025	[0.006, 0.086]	[-0.122, 0.214]	113.433***	0.007	74.95
DG (Reduced model ^a)	25	10,051	0.034 (0.018)	1.880	0.060	[-0.001, 0.070]	[-0.103, 0.172]	81.578**	0.005	65.95
UG	12	2,410	0.001 (0.051)	0.015	0.988	[-0.100, 0.102]	[-0.266, 0.267]	28.280**	0.016	66.19
PGG	15	9,548	0.053 (0.023)	2.330	0.020	[0.008, 0.097]	[-0.093, 0.199]	53.084***	0.005	73.49
PD	11	9,020	0.065 (0.027)	2.447	0.014	[0.013, 0.117]	[-0.082, 0.213]	39.386***	0.005	78.94
DP	21	55,584	0.047 (0.022)	2.098	0.036	[0.003, 0.090]	[-0.152, 0.222]	96.338***	0.007	92.23
SVO	16	24,744	-0.007 (0.020)	-0.351	0.726	[-0.047, 0.033]	[-0.153, 0.139]	64.646***	0.005	88.17
AS	7	2,175	0.118 (0.071)	1.668	0.095	[-0.021, 0.257]	[-0.250, 0.487]	71.513***	0.030	90.68

Note. EG = Economic Game (incl. Dictator game, Prisoner's dilemma, Ultimatum game, Public good game, Common dilemma, Distribution Game). DG = Dictator Game. UG = Ultimatum game. PGG = Public Good Game. PD = Prisoner's dilemma. DP = Donation paradigm. SVO = Social value orientation. AS = Altruism scale.

^a Exclusion of Matsumoto et al. (2016) as detected to be overly influential based on Cook's distances.

*** p < 0.001, ** p < 0.01, * p < 0.05.

Table S15

Measure-Specific Sub-Analyses Regarding $MA_{cont-quad} - MA_{behav}$

Measure	<i>k</i>	<i>n</i>	$\hat{\mu}$ (SE)	z-val	<i>p</i>	95% CI	95% PI	Q	<i>t</i> ²	<i>I</i> ² (%)
EG	17	18,657	-0.096 (0.052)	-1.866	0.062	[-0.198, 0.005]	[-0.198, 0.005]	2.676	0.00	0.00
DG	8	5,318	-0.130 (0.094)	-1.385	0.166	[-0.314, 0.054]	[-0.314, 0.054]	0.272	0.00	0.00
PD	5	7,721	-0.066 (0.080)	-0.824	0.410	[-0.223, 0.091]	[-0.223, 0.091]	0.185	0.00	0.00
SVO	8	17,654	0.104 (0.051)	2.047	0.041	[0.004, 0.204]	[0.004, 0.204]	0.781	0.00	0.00

Note. All models represent the adjusted effect (adjusting for the linear standardized beta coefficient/lower order term). The Q-value represents the residual heterogeneity. EG = Economic game (incl. Dictator game, Prisoner's dilemma, Ultimatum game, Public good game). DG = Dictator game. PD = Prisoner's dilemma. SVO = Social value orientation.

Table S16

Measure-Specific Sub-Analyses Regarding $MA_{groups} - MA_{behav}$

Age groups	Ms	k	n YA	n MA	$\hat{\mu}$ (SE)	z-val	p	95% CI	95% PI	Q	t^2	I^2 (%)
YA vs. MA	EG	39	11,650	9,527	0.086 (0.023)	3.671	<0.001	[0.040, 0.132]	[-0.099, 0.271]	82.478***	0.008	50.89
YA vs. MA	DG	18	3,792	3,249	0.138 (0.047)	2.937	0.003	[0.046, 0.230]	[-0.165, 0.442]	42.287***	0.022	62.21
YA vs. MA	PGG	13	4,076	3,734	0.107 (0.036)	2.977	0.003	[0.037, 0.177]	[-0.043, 0.257]	16.948	0.005	31.63
YA vs. MA	PD	11	4,366	3,746	0.056 (0.054)	1.051	0.293	[-0.049, 0.161]	[-0.236, 0.349]	34.582***	0.019	74.64
YA vs. MA	DP	9	19,253	21,173	0.080 (0.054)	1.473	0.141	[-0.026, 0.186]	[-0.184, 0.344]	36.023***	0.015	91.56
YA vs. MA	SVO	10	6,076	8,148	-0.001 (0.040)	-0.020	0.984	[-0.078, 0.077]	[-0.217, 0.215]	35.201***	0.011	77.78
Age groups	Ms	k	n YA	n OA	$\hat{\mu}$ (SE)	z-val	p	95% CI	95% PI	Q	t^2	I^2 (%)
YA vs. OA	EG	32	9,023	3,332	0.246 (0.075)	3.284	0.001	[0.099, 0.393]	[-0.521, 1.014]	151.796***	0.148	90.75
YA vs. OA	DG	16	2,501	1,459	0.270 (0.069)	3.919	< 0.001	[0.135, 0.405]	[-0.174, 0.714]	45.654***	0.047	68.47
YA vs. OA	UG	7	935	276	0.703 (0.489)	1.438	0.150	[-0.255, 1.660]	[-1.947, 3.353]	75.665***	1.589	96.63
YA vs. OA	PD	8	3,922	1,353	0.081 (0.046)	1.762	0.078	[-0.009, 0.171]	[-0.086, 0.248]	10.411	0.005	33.32
YA vs. OA	DP	11	19,566	10,412	0.185 (0.100)	1.854	0.064	[-0.011, 0.381]	[-0.433, 0.803]	68.321***	0.090	97.30
YA vs. OA	SVO	8	5,820	5,032	-0.033 (0.026)	-1.237	0.216	[-0.084, 0.019]	[-0.113, 0.048]	12.163	0.001	18.06
Age groups	Ms	k	n MA	n OA	$\hat{\mu}$ (SE)	z-val	p	95% CI	95% PI	Q	t^2	I^2 (%)
MA vs. OA	EG (fm)	20	8,306	2,686	0.191 (0.131)	1.456	0.145	[-0.066, 0.449]	[-0.945, 1.328]	104.951***	0.319	96.54

MA vs. OA	EG (rm ^α)	19	8,276	2,657	0.100 (0.037)	2.709	0.007	[0.028, 0.172]	[-0.121, 0.321]	35.665*	0.011	51.11
MA vs. OA	DG (fm)	9	2,546	1,101	0.055 (0.066)	0.830	0.407	[-0.074, 0.184]	[-0.263, 0.373]	19.381*	0.022	62.22
MA vs. OA	DG (rm ^β)	8	2,381	1,063	0.114 (0.043)	2.662	0.008	[0.030, 0.198]	[-0.011, 0.240]	6.665	0.002	15.48
MA vs. OA	PD	6	3,241	1,145	0.106 (0.035)	3.020	0.003	[0.037, 0.176]	[0.037, 0.176]	5.468	0.00	0.01
MA vs. OA	DP (fm)	8	21,119	10,005	0.111 (0.022)	4.990	< 0.001	[0.067, 0.154]	[0.036, 0.185]	17.825*	0.001	34.85
MA vs. OA	DP (rm ^γ)	6	1,668	889	0.083 (0.102)	0.807	0.419	[-0.118, 0.284]	[-0.360, 0.525]	14.047*	0.041	74.12
MA vs. OA	SVO	8	7,822	5,032	-0.014 (0.031)	-0.458	0.647	[-0.076, 0.047]	[-0.137, 0.108]	12.198	0.003	43.34

Note. *Ms* = *Measure*. YA = Younger adults. MA = Middle-old adults. OA = Older adults. EG = Economic game (incl. Dictator game, Prisoner's dilemma, Ultimatum game, Public good game). DG = Dictator game. PGG = Public good game. PD = Prisoner's Dilemma. DP = Donation paradigm. SVO = Social value orientation. UG = Ultimatum game. Fm = Full model. Rm = Reduced model.

*** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$.

^α Exclusion of [Fernandes et al. \(2019\)](#) as detected to be overly influential based on Cook's distances.

^β Exclusion of [Tinghög et al. \(2016\)](#) as detected to be overly influential based on Cook's distances.

^γ Exclusion of [Cutler et al. \(2021\)](#) as detected to be overly influential based on Cook's distances.

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