

Supplementary Information

Table S1: Survey choice architecture

Pairwise choice order	Choice pattern	Number of choices until completion	Best strategy identified?
AB, AC, AD	$A \succ B, A \succ C, A \succ D$	3	Yes, A
AB, AC, AD	$A \succ B, A \succ C, A \sim D$	3	No
AB, AC, AD	$A \succ B, A \sim C, A \succ D$	3	No
AB, AC, AD	$A \succ B, A \sim C, D \sim A$	3	No
AB, AC, AD, DB	$A \succ B, A \succ C, D \succ A, B \succ D$	4	No
AB, AC, AD, DB	$A \succ B, A \succ C, D \succ A, D \sim B$	4	No
AB, AC, AD, DB, DC	$A \succ B, A \succ C, D \succ A, D \succ B, C \succ D$	5	No
AB, AC, AD, DB, DC	$A \succ B, A \succ C, D \succ A, D \succ B, D \sim C$	5	No
AB, AC, AD, DB, DC	$A \succ B, A \succ C, D \succ A, D \succ B, D \succ C$	5	Yes, D
AB, AC, CB, CD	$A \succ B, C \succ A, C \succ B, C \succ D$	4	Yes, C
AB, AC, CB, CD	$A \succ B, C \succ A, C \succ B, C \sim D$	4	No
AB, AC, CB, CD, DA	$A \succ B, C \succ A, C \succ B, D \succ C, A \succ D$	5	No
AB, AC, CB, CD, DA	$A \succ B, C \succ A, C \succ B, D \succ C, D \sim A$	5	No
AB, AC, CB, CD, DA, DB	$A \succ B, C \succ A, C \succ B, D \succ C, D \succ A, B \succ D$	6	No
AB, AC, CB, CD, DA, DB	$A \succ B, C \succ A, C \succ B, D \succ C, D \succ A, D \sim B$	6	No
AB, AC, CB, CD, DA, DB	$A \succ B, C \succ A, C \succ B, D \succ C, D \succ A, D \succ B$	6	Yes, D
AB, AC, CB, CD	$A \succ B, C \succ A, B \succ C, C \succ D$	4	No
AB, AC, CB, CD	$A \succ B, C \succ A, B \succ C, C \sim D$	4	No

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Pairwise choice order	Choice pattern	Number of choices until completion	Best strategy identified?
AB, AC, CB, CD, DA	$A \succ B, C \succ A, B \succ C, D \succ C, A \succ D$	5	No
AB, AC, CB, CD, DA	$A \succ B, C \succ A, B \succ C, D \succ C, D \sim A$	5	No
AB, AC, CB, CD, DA, DB	$A \succ B, C \succ A, B \succ C, D \succ C, D \succ A, B \succ D$	6	No
AB, AC, CB, CD, DA, DB	$A \succ B, C \succ A, B \succ C, D \succ C, D \succ A, D \sim B$	6	No
AB, AC, CB, CD, DA, DB	$A \succ B, C \succ A, B \succ C, D \succ C, D \succ A, D \succ B$	6	Yes, D
AB, AC, CB, CD	$A \succ B, C \succ A, C \sim B, C \succ D$	4	No
AB, AC, CB, CD	$A \succ B, C \succ A, C \sim B, C \sim D$	4	No
AB, AC, CB, CD, DA	$A \succ B, C \succ A, C \sim B, D \succ C, A \succ D$	5	No
AB, AC, CB, CD, DA	$A \succ B, C \succ A, C \sim B, D \succ C, D \sim A$	5	No
AB, AC, CB, CD, DA, DB	$A \succ B, C \succ A, C \sim B, D \succ C, D \succ A, B \succ D$	6	No
AB, AC, CB, CD, DA, DB	$A \succ B, C \succ A, C \sim B, D \succ C, D \succ A, D \sim B$	6	No
AB, AC, CB, CD, DA, DB	$A \succ B, C \succ A, C \sim B, D \succ C, D \succ A, D \succ B$	6	Yes, D
AB, BC, BD	$B \succ A, B \succ C, B \succ D$	3	Yes, B
AB, BC, BD	$B \succ A, B \succ C, B \sim D$	3	No
AB, BC, BD, DA	$B \succ A, B \succ C, D \succ B, A \succ D$	4	No
AB, BC, BD, DA	$B \succ A, B \succ C, D \succ B, D \sim A$	4	No
AB, BC, BD, DA, DC	$B \succ A, B \succ C, D \succ B, D \succ A, C \succ D$	5	No
AB, BC, BD, DA, DC	$B \succ A, B \succ C, D \succ B, D \succ A, D \sim C$	5	No
AB, BC, BD, DA, DC	$B \succ A, B \succ C, D \succ B, D \succ A, D \succ C$	5	Yes, D

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Pairwise choice order	Choice pattern	Number of choices until completion	Best strategy identified?
AB, BC, BD	$B \succ A, B \sim C, B \succ D$	3	No
AB, BC, BD	$B \succ A, B \sim C, B \sim D$	3	No
AB, BC, BD, DA	$B \succ A, B \sim C, D \succ B, A \succ D$	4	No
AB, BC, BD, DA	$B \succ A, B \sim C, D \succ B, D \sim A$	4	No
AB, BC, BD, DA, DC	$B \succ A, B \sim C, D \succ B, D \succ A, C \succ D$	5	No
AB, BC, BD, DA, DC	$B \succ A, B \sim C, D \succ B, D \succ A, D \sim C$	5	No
AB, BC, BD, DA, DC	$B \succ A, B \sim C, D \succ B, D \succ A, D \succ C$	5	Yes, D
AB, BC, CA, CD	$B \succ A, C \succ B, C \succ A, C \succ D$	4	Yes, C
AB, BC, CA, CD, DA	$B \succ A, C \succ B, C \succ A, D \succ C, A \succ D$	5	No
AB, BC, CA, CD, DA	$B \succ A, C \succ B, C \succ A, D \succ C, D \sim A$	5	No
AB, BC, CA, CD, DA, DB	$B \succ A, C \succ B, C \succ A, D \succ C, D \succ A, B \succ D$	6	No
AB, BC, CA, CD, DA, DB	$B \succ A, C \succ B, C \succ A, D \succ C, D \succ A, D \sim B$	6	No
AB, BC, CA, CD, DA, DB	$B \succ A, C \succ B, C \succ A, D \succ C, D \succ A, D \succ B$	6	Yes, D
AB, BC, CA, CD	$B \succ A, C \succ B, A \succ C, C \succ D$	4	No
AB, BC, CA, CD, DA	$B \succ A, C \succ B, A \succ C, D \succ C, A \succ D$	5	No
AB, BC, CA, CD, DA	$B \succ A, C \succ B, A \succ C, D \succ C, D \sim A$	5	No
AB, BC, CA, CD, DA, DB	$B \succ A, C \succ B, A \succ C, D \succ C, D \succ A, B \succ D$	6	No
AB, BC, CA, CD, DA, DB	$B \succ A, C \succ B, A \succ C, D \succ C, D \succ A, D \sim B$	6	No
AB, BC, CA, CD, DA, DB	$B \succ A, C \succ B, A \succ C, D \succ C, D \succ A, D \succ B$	6	Yes, D

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Pairwise choice order	Choice pattern	Number of choices until completion	Best strategy identified?
AB, BC, CA, CD	$B \succ A, C \succ B, C \sim A, C \succ D$	4	No
AB, BC, CA, CD, DA	$B \succ A, C \succ B, C \sim A, D \succ C, A \succ D$	5	No
AB, BC, CA, CD, DA	$B \succ A, C \succ B, C \sim A, D \succ C, D \sim A$	5	No
AB, BC, CA, CD, DA, DB	$B \succ A, C \succ B, C \sim A, D \succ C, D \succ A, B \succ D$	6	No
AB, BC, CA, CD, DA, DB	$B \succ A, C \succ B, C \sim A, D \succ C, D \succ A, D \sim B$	6	No
AB, BC, CA, CD, DA, DB	$B \succ A, C \succ B, C \sim A, D \succ C, D \succ A, D \succ B$	6	Yes, D
AB, CD	$A \sim B, C \sim D$	2	No
AB, CD, CA	$A \sim B, C \succ D, A \succ C$	3	No
AB, CD, CA	$A \sim B, C \succ D, C \sim A$	3	No
AB, CD, CA, CB	$A \sim B, C \succ D, C \succ A, B \succ C$	4	No
AB, CD, CA, CB	$A \sim B, C \succ D, C \succ A, C \sim B$	4	No
AB, CD, CA, CB	$A \sim B, C \succ D, C \succ A, C \succ B$	4	Yes, C
AB, CD, DA	$A \sim B, D \succ C, A \succ D$	3	No
AB, CD, DA	$A \sim B, D \succ C, D \sim A$	3	No
AB, CD, DA, DB	$A \sim B, D \succ C, D \succ A, B \succ D$	4	No
AB, CD, DA, DB	$A \sim B, D \succ C, D \succ A, D \sim B$	4	No
AB, CD, DA, DB	$A \sim B, D \succ C, D \succ A, D \succ B$	4	Yes, D

Table S2: Distribution of selected best strategies, Arm 1

Category	Proportion	Lower CI	Upper CI
AG	0.60	0.53	0.67
ChSP	0.04	0.00	0.12
NS	0.21	0.14	0.28
S	0.16	0.09	0.23

Table S3: Distribution of selected best strategies, Arm 2

Category	Proportion	Lower CI	Upper CI
AG	0.53	0.45	0.61
ChSP	0.09	0.01	0.17
NS	0.23	0.16	0.32
S	0.15	0.07	0.23

Table S4: Probit Model Results, Modeling the probability of not finding a best strategy through the survey design.

	Estimate	Std. Error	z value	$\Pr(> z)$
(Intercept)	0.7627	0.3139	2.43	0.0151
Age	0.0024	0.0096	0.25	0.7995
Sex-Male	0.0145	0.1491	0.10	0.9226
Sex-Prefer not to say	-0.8099	0.6388	-1.27	0.2049
Tertiary education	-0.0237	0.1563	-0.15	0.8796

Table S5: Results of logit model for Responsibility ChSP.

Category	Estimate	Lower CI	Upper CI
(Intercept)	0.128	0.02	0.90
Age	1.003	0.95	1.06
Sex: Female	1.514	0.78	2.92
Parents smoke: Yes	0.749	0.40	1.43
Children: Yes	0.829	0.23	2.65
Smoke: Yes	1.074	0.55	2.07
Preferences: High influence	0.583	0.28	1.24
Parents: High influence	4.571	2.20	10.39
Friends: High influence	0.665	0.28	1.65
Mental health: High influence	1.144	0.55	2.51
Ignorance: High influence	1.23	0.64	2.33
Marketing: High influence	0.769	0.35	1.59

The table presents the Odds Ratios (OR) along with their confidence intervals for each variable. The OR quantifies the impact of each covariate on the likelihood of perceiving smoker children of smoking parents as less responsible for their decision to smoke, compared to smoker children of non-smoking parents. To stabilize the results of the sex covariate two observations with sex corresponding to "prefer not to say" were dropped from the analysis.

Table S6: Results of logit model for Just Loss.

Category	Estimate	Lower CI	Upper CI
(Intercept)	0.063	0.01	0.44
Age	1.007	0.95	1.06
Sex: Female	1.405	0.73	2.65
Parents smoke: Yes	2.927	1.47	6.30
Children: Yes	0.81	0.22	2.56
Smoke: Yes	0.623	0.31	1.21
Preferences: High influence	1.057	0.51	2.33
Parents: High influence	1.298	0.69	2.50
Friends: High influence	1.437	0.61	3.81
Mental health: High influence	0.744	0.38	1.51
Ignorance: High influence	1.024	0.54	1.91
Marketing: High influence	1.159	0.57	2.29

The table presents the Odds Ratios (OR) along with their confidence intervals for each variable. The OR quantifies the impact of each covariate on the likelihood of perceiving that the average ten years gap in lifespan between smoker and non smoker is unjust. To stabilize the results of the sex covariate two observations with sex corresponding to "prefer not to say" were dropped from the analysis.

Table S7: Distribution of Allocation Preferences by Just Loss Perception and Parental Smoking Status.

	AG	ChSP	NS	S
Children of Smoking Parents				
Just	53.6	7.2	29.6	9.6
Skip	68.0	4.0	12.0	16.0
Unjust	72.7	6.1	6.1	15.2
Children of Non-Smoking Parents				
Just	52.5	5.0	26.3	16.3
Skip	48.4	9.7	16.1	25.8
Unjust	41.7	0.0	16.7	41.7