Supplementary Materials

Sub-samples participants

Poland sample

472 participants (374 women, 96 men, 2 non-binary persons: M_{age} = 34.69, SD_{age} = 11.42), ranging from ages 18 to 72, agreed to take part in the survey. 32 participants (22 women, 11 men: M_{age} = 28.63, SD_{age} = 6.05), ranging from ages 18 to 38, were excluded from the analyses due to lack of answers (which we treated as a proxy of lack of attention) or a declaration of a positive COVID-19 test result. The final sample consisted of 440 participants (353 women, 85 men and 2 non-binary persons: M_{age} = 35.13, SD_{age} = 11.6), ranging from 18 to 72.

Italy sample

106 participants (64 women, 41 men, 1 non-binary person: M_{age} = 29.17, SD_{age} = 8.91), ranging from ages 20 to 68, agreed to take part in the survey. 6 participants (3 women, 3 men: M_{age} = 27.67, SD_{age} = 3.88), ranging from ages 24 to 35, were excluded from the analyses due to lack of answers (which we treated as a proxy of lack of attention) or a declaration of a positive COVID-19 test result. The final sample consisted of 100 participants (61 women, 38 men and 1 non-binary person: M_{age} = 35.13, SD_{age} = 11.6), ranging from 20 to 68.

Germany sample

137 participants (84 women, 44 men, 1 non-binary person, 8 people did not provide gender information and: M_{age} = 26.02, SD_{age} = 6.92), ranging from ages 18 to 63, agreed to take part in the survey. 8 participants (*N/A* women, *N/A* men: M_{age} = *N/A*, SD_{age} = *N/A*), were excluded from the analyses due to lack of answers (which we treated as a proxy of lack of attention) or a declaration of a positive COVID-19 test result. The final sample consisted of 129 participants (84 women, 44 men and 1 non-binary person: M_{age} = 26.02, SD_{age} = 6.95), ranging from 20 to 68.

International social media sample

94 participants (57 women, 37 men: M_{age} = 51.46, SD_{age} = 12.84), ranging from ages 21 to 76, agreed to take part in the survey. 42 participants (15 women, 27 men: M_{age} = 53.74, SD_{age} = 12.93), ranging from ages 30 to 76, were excluded from the analyses due to lack of answers (which we treated as a proxy of lack of attention) or a declaration of a positive COVID-19 test result. The final sample consisted of 52 participants (30 women, 22 men: M_{age} = 49.62, SD_{age} = 12.56), ranging from 21 to 76, from 10 countries : *Mo* = USA (N = 33), Spain (N = 7), France (N = 3), Switzerland (N = 2), United Kingdom (N = 2), Canada (N = 1), Germany (N = 1), India (N = 1), Italy (N = 1), New Zealand (N = 1).

The 33 participants from USA (23 women, 19 men: M_{age} = 50.79, SD_{age} = 12.49), ranged from ages 24 to 76.

USA sample # 2 - run via MTurk

207 participants (79 women, 119 men, 2 non-binary person, 7 people did not provide gender information and: M_{age} = 35.08, SD_{age} = 9.81), ranging from ages 18 to 68, agreed to take part in the survey. 26 participants (11 women, 8 men: M_{age} = 34.95, SD_{age} = 9.36), ranging from ages 18 to 62, were excluded from the analyses due to lack of answers (which we treated as a proxy of lack of attention) or a declaration of a positive COVID-19 test result. The final sample consisted of 181 participants (68 women, 111 men and 2 non-binary persons: M_{age} = 35.09, SD_{age} = 9.88), ranging from 18 to 68.

Correlation matrixes

Study 1

Variable	1	2	3	4	5
1. Vaccine intention	—				
2. Optimistic.bias	-0.033	—			
3. Trust in scientists	0.687 ***	-0.002	—		
4. Conspiracy beliefs	-0.378 ***	0.035	-0.441 ***	—	
5. Perceived likelihood infection	0.252 ***	0.087 **	0.227 ***	-0.096 **	—

* p < .05, ** p < .01, *** p < .001

Study 2

Variable	1	2	3	4	5	6	7
1. Vaccine intention	—						
2. Optimistic bias risk	0.043	—					
3. Optimistic bias immunity	0.061	0.238 ***	—				
4. Trust in scientists	0.457 ***	0.053	0.100 **	—			
5. Conspiracy beliefs	-0.257 ***	-0.110 ***	-0.092 **	-0.353 ***	—		
6. Perceived likelihood infection	0.255 ***	0.029	0.054	0.308 ***	0.00	—	
7. Immunity beliefs	0.008	-0.043	-0.133 ***	0.039	0.240 ***	0.420 ***	—

* p < .05, ** p < .01, *** p < .001