Online appendices for

A brief forewarning intervention overcomes negative effects of salient changes in COVID-19 guidance

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Appendix A: Materials and measures

Note: Brackets are used in instances in which wordings differed for Canadian/U.S. samples. Participants were also provided with additional materials (e.g., consent, debriefing, introductions to sections), which were of secondary interest and therefore not included here.

Bot detection questions ("botchas")
(For previous use of botchas, see, for example, Littrell & Fugelsang, 2021.)

Study 1

1. If you were to arrange the following book titles into **alphabetical** order, which book title would come **third**?

Response options:
1. Nights in Rodanthe
2. For One More Day
3. Tuesdays With Morrie
4. See Me
5. Human Touch

2. Please read the statement below and then type it in the box in **reverse** order. Please include any capitalizations in the words that have capital letters. Do not include any punctuation (e.g., periods, quotation marks, etc.). For example, if the statement said "fun are trucks Red," you would type "Red trucks are fun": **high jump can I**

Response option: Free-entry text box

Study 2[1]

1. If you were to arrange the following book titles into **alphabetical** order, which book title would come **first**?

[1] Unless otherwise noted, reference to Study 2 will be used to note the presence of materials presented in both Study 2a and Study 2b.

Response options:
1. Nights in Rodanthe
2. For One More Day
3. Tuesdays With Morrie
4. See Me
5. Human Touch

2. Please read the statement below and then type it in the box in **reverse** order. Please include any capitalizations in the words that have capital letters. Do not include any punctuation (e.g., periods, quotation marks, etc.). For example, if the statement said "fun are trucks Red," you would type "Red trucks are fun" **now here am I**

Response option: Free-entry text box

Forewarning intervention (Study 2)

Instructions: Please read the following passage and indicate the extent to which it was easy to understand, using a scale from 1: Easy to understand to 7: Difficult to understand.

Intervention: The scientific process is one of discovery, in which one research finding might initially be the best evidence available, but even better evidence may be found later and may change scientists' understanding of a topic. As a result, the body of knowledge is one that is evolving and improving rather than remaining static.

Imagine what this would mean if you were a public health authority:

In order for you to **consistently** make decisions and provide guidance based on the best available science, these recommendations will end up changing – because the best available scientific conclusions are changing as well.

How easy was this passage to understand?

Response options: 1: Easy to understand; 2; 3; 4; 5; 6; 7: Difficult to understand

Guidance manipulation (Studies 1 & 2a)

Both conditions

Instructions: The following are issues related to COVID-19 (Novel Coronavirus). Please rate your familiarity with each issue, using a scale from 1: Not at all familiar with this issue to 7: Very familiar with this issue.

Response options (all items): 1 (Not at all familiar with this issue); 2; 3; 4 (Somewhat familiar with this issue); 5; 6; 7 (Very familiar with this issue)

Consistent guidance condition

Masks
Months ago, [Canadian/American] public health officials advised [Canadians/Americans] to wear non-medical masks. Wearing masks is still recommended, for example, when indoors in public places.

Asymptomatic Transmission
Earlier in the pandemic, scientists and public health authorities suggested that people who never develop symptoms might nonetheless spread COVID-19. Now, further evidence indicates that people without symptoms can spread COVID-19.

Social (Physical) Distancing
Since early in the pandemic, [Canadians/Americans] have been asked by public health officials to practice social distancing of at least [2 meters/6 feet]. This ([2 meters/6 feet]) remains the recommendation because of its potential to reduce risk of transmission.

Spread of COVID-19 by Children
For months, scientists suggested that children might spread COVID-19 at similar rates to adults. There continues to be evidence that children can spread COVID-19 at similar rates to adults.

Inconsistent guidance condition

Masks
Months ago, [Canadian/American] public health officials advised [Canadians/Americans] against wearing non-medical masks. Wearing masks is now recommended, for example, when indoors in public places.

Asymptomatic Transmission
Earlier in the pandemic, scientists and public health authorities suggested that people who never develop symptoms might not necessarily spread COVID-19. Now, further evidence indicates that people without symptoms can spread COVID-19.

Social (Physical) Distancing
Since early in the pandemic, [Canadians/Americans] have been asked by public health officials to practice social distancing of at least [2 meters/6 feet]. Newer evidence for aerosolized transmission suggests that [2 meters/6 feet] might not be sufficient to eliminate the risk of transmission.

Spread of COVID-19 by Children
For months, scientists suggested that children might spread COVID-19 at lower rates than adults. There is now evidence that children can spread COVID-19 at similar rates to adults.

Guidance manipulation (Study 2b)

Both conditions

Instructions: The following are issues related to COVID-19 (Novel Coronavirus). Please rate your familiarity with each issue, using a scale from 1: Not at all familiar with this issue to 7: Very familiar with this issue.

Response options (all items): 1 (Not at all familiar with this issue); 2; 3; 4 (Somewhat familiar with this issue); 5; 6; 7 (Very familiar with this issue)

Consistent guidance condition

Masks
Months ago, American public health officials advised Americans to wear non-medical masks. Consistent with these earlier statements, wearing masks is still recommended, for example, when indoors in public places.

Asymptomatic Transmission
Earlier in the pandemic, public health authorities suggested that people who never develop symptoms might nonetheless spread COVID-19. In line with this previous guidance, more recent public health messages note that people without symptoms can indeed spread COVID-19.

Social (Physical) Distancing
Since early in the pandemic, public health officials have indicated that COVID-19 can spread via droplets expelled by an infected person. Public health guidance regarding transmission continues to include transmission via droplets, including both larger droplets and tiny, floating droplets known as aerosols.

Spread of COVID-19 by Children
For months, public health figures suggested that children might spread COVID-19 at similar rates to adults. Likewise, currently some public health authorities continue to suggest that children can spread COVID-19 at similar rates to adults.

Inconsistent guidance Condition

Masks
Months ago, American public health officials advised Americans against wearing non-medical masks. In a change from these earlier statements, wearing masks is now recommended, for example, when indoors in public places.

Asymptomatic Transmission
Earlier in the pandemic, public health authorities suggested that people who never develop symptoms might not necessarily spread COVID-19. In contrast with this previous guidance, more recent public health messages note that people without symptoms actually can spread COVID-19.

Social (Physical) Distancing
Since early in the pandemic, public health officials have indicated that COVID-19 can spread via droplets expelled by an infected person. Public health guidance regarding transmission has changed to include transmission via both larger droplets and tiny, floating droplets known as aerosols.

Spread of COVID-19 by Children
For months, public health figures suggested that children might spread COVID-19 at lower rates than adults. On the other hand, some public health authorities now suggest that children can spread COVID-19 at similar rates to adults.

Manipulation checks (Studies 1 & 2)

** Only Item 1 (U.S. wording) was presented in Study 2b.*

1. To what extent do you think **[Canadian/U.S.] public health authorities'** guidance regarding COVID-19 has changed over time?

2. To what extent do you think that **[Canadian/U.S.] public health** recommendations regarding COVID-19 continue to change?

3. To what extent do you think **scientists**' understanding related to COVID-19 has changed over time?

4. To what extent do you think that **scientific findings** regarding COVID-19 continue to change?

Response options (Items 1 and 3): 1 (It has not changed at all); 2; 3; 4 (It has changed somewhat); 5; 6; 7 (It has changed a great deal)

Response options (Items 2 and 4): 1 (They are not changing); 2; 3; 4 (They are changing somewhat); 5; 6; 7 (They are changing a lot)

Ratings of scientists and public health authorities (Studies 1 & 2a)

1. How do you feel about **scientists**, when it comes to their recommendations related to COVID-19?

2. How do you feel about **public health authorities**, when it comes to their recommendations related to COVID-19?

** All items within this section (e.g., Trust Item #1) were presented once following Item 1 and once following Item 2. Thus, participants judged the trustworthiness, expertise, and bias of both scientists and public health authorities using the response options below.*

Trust item #1 response options: 1 (Not at all **trustworthy**); 2; 3; 4 (Somewhat **trustworthy**); 5; 6; 7 (Completely **trustworthy**)

Trust item #2 response options: 1 (Not at all **honest**); 2; 3; 4 (Somewhat **honest**); 5; 6; 7 (Completely **honest**)

Expertise item #1 response options: 1 (Not at all **knowledgeable**); 2; 3; 4 (Somewhat **knowledgeable**); 5; 6; 7 (Completely **knowledgeable**)

Expertise item #2 response options: 1 (Not at all **expert**); 2; 3; 4 (Somewhat **expert**); 5; 6; 7 (Completely **expert**)

Bias item #1 response options: 1 (Not at all **biased**); 2; 3; 4 (Somewhat **biased**); 5; 6; 7 (Completely **biased**)

Bias Item #2 response options: 1 (Not at all **influenced by ideology**); 2; 3; 4 (Somewhat **influenced by ideology**); 5; 6; 7 (Completely **influenced by ideology**)

Ratings of public health authorities (Study 2b)

1. How do you feel about **public health authorities**, when it comes to their recommendations related to COVID-19?

Trust item #1 response options: 1 (Not at all **trustworthy**); 2; 3; 4 (Somewhat **trustworthy**); 5; 6; 7 (Completely **trustworthy**)

Trust item #2 response options: 1 (Not at all **honest**); 2; 3; 4 (Somewhat **honest**); 5; 6; 7 (Completely **honest**)

Expertise item #1 response options: 1 (Not at all **knowledgeable**); 2; 3; 4 (Somewhat **knowledgeable**); 5; 6; 7 (Completely **knowledgeable**)

Expertise item #2 response options: 1 (Not at all **expert**); 2; 3; 4 (Somewhat **expert**); 5; 6; 7 (Completely **expert**)

Bias item #1 response options: 1 (Not at all **biased**); 2; 3; 4 (Somewhat **biased**); 5; 6; 7 (Completely **biased**)

Bias item #2 response options: 1 (Not at all **influenced by ideology**); 2; 3; 4 (Somewhat **influenced by ideology**); 5; 6; 7 (Completely **influenced by ideology**)

2. How do you feel about **public health authorities**, when it comes to their recommendations related to COVID-19?

Usefulness item #1 response options: 1 (Not at all **useful**); 2; 3; 4 (Somewhat **useful**); 5; 6; 7 (Completely **useful**)

Usefulness item #2 response options: 1 (Not at all **helpful**); 2; 3; 4 (Somewhat **helpful**); 5; 6; 7 (Completely **helpful**)

COVID-19 vaccination intentions (Studies 1 & 2)
(For Item 1, see Angus Reid Institute, 2020 and Privy Council Office of Canada, 2020 for similar measures. For Item 2, see World Health Organization, 2020 for similar measures.)

** Only Item 2 was presented in Study 2b.*

1. If a COVID-19 vaccine was approved for use in [Canada/the U.S.], would you get vaccinated, or not?
Response options: Yes, I would get the vaccine as soon as it became available to me; Yes, I would eventually get the vaccine, but would want to wait a bit; No, I would not get a COVID-19 vaccine

** Item 1b was presented only if the participant selected "Yes, I would eventually get the vaccine, but would want to wait a bit" on Item 1.*

1b. You indicated that you would eventually get the vaccine, but would want to wait a bit. How long would you wait before getting a COVID-19 vaccine?

Response options (Study 1): A few weeks; A month or two; Several months; A year or more

Response options (Study 2a): A few weeks; 1 month; 2 months; 3-6 months; 7-12 months; Over a year

2. If a COVID-19 vaccine becomes available and is recommended for me, I would get it.

Response options: Definitely not; Probably not; Unsure; Probably would; Definitely would

Contract tracing intentions (Study 1)

** Item 1 was presented exclusively to Canadian participants while Item 2 was presented exclusively to American participants.*

1. Do you intend to download the COVID Alert app?

Response options: 1: Definitely not; 2: Probably not; 3: Not sure; 4: Probably yes: 5: Definitely yes; I have already downloaded the app; I am unable to download the app

2. Do you intend to download a contact tracing app?

Response options: 1: Definitely not; 2: Probably not; 3: Not sure; 4: Probably yes: 5: Definitely yes; I have already downloaded an app; I am unable to download an app

COVID-19 protective behaviors and flu vaccination (Studies 1 & 2)

** Items 1 and 3.4 did not appear in Study 2.*

1. Do you plan on getting vaccinated for seasonal flu this Fall?

Response options: I plan to do that; I don't plan to do that; It doesn't apply to my situation

2. How many times over the last five flu seasons have you gotten vaccinated for the flu?

Response options: 0; 1; 2; 3; 4; 5; It doesn't apply to my situation

3. To what extent have you been engaging in the following behaviours…

3.1. Wearing a mask when indoors in public?
3.2. Reducing your frequency of social gatherings due to COVID-19 (compared with pre-pandemic)?
3.3. Social (physical) distancing of at least [2 meters/6 feet] when possible?
3.4. Washing your hands for at least 20 seconds following contact with surfaces that might possibly have been exposed to Coronavirus?

Response options (Items 3.1 to 3.4): 1 (Never); 2; 3; 4; 5; 6; 7 (Always)

Perception of change in science (Studies 1 & 2)

** Items 1 and 2 were presented in Study 1 and 2a. Items 3 and 4 were presented in Study 2a and 2b, with the word "change" bolded in Study 2b only.*

Instructions: Please indicate your opinion or level of agreement with the following statements.

1. When scientific conclusions change regarding COVID-19, this is generally...

Response options: 1: A sign that science is **struggling**; 2; 3; 4; 5; 6; 7: A sign that science is **proceeding as it should**

2. When scientific conclusions change regarding COVID-19, this is generally...

Response options: 1: A sign that we are moving **backward**; 2; 3; 4; 5; 6; 7: A sign that we are moving **forward**

3. To what extent is it **reasonable** for public health recommendations to **change** regarding COVID-19?

Response options: 1: Not at all **reasonable**; 2; 3; 4; 5; 6; 7: Very **reasonable**

4. To what extent is it **acceptable** for public health recommendations to **change** regarding COVID-19?

Response Options: 1: Not at all **acceptable**; 2; 3; 4; 5; 6; 7: Very **acceptable**

Need for Closure regarding COVID-19 (Study 1)
(See Webster & Kruglanski, 1994 for the original Need for Closure scale.)

1. Please indicate your opinion or level of agreement with the following statements.

1.1. I want to know the latest scientific hypotheses regarding COVID-19, even if they are later proven to be untrue.
1.2. I only want to know what public health authorities are sure about regarding COVID-19.
1.3. I would like to know all that I can about COVID-19, even if what is "known" keeps changing.
1.4. I would rather only know the facts about COVID-19 once they have been confirmed and will not later be revised.

Response options (Items 1.1 to 1.4): 1: Strongly Disagree; 2: Moderately disagree; 3: Slightly disagree; 4: Neither agree nor disagree; 5: Slightly agree; 6: Moderately agree; 7: Strongly Agree

Perceived knowledge regarding COVID-19 (Study 1)
(See Privy Council Office of Canada, 2020 and World Health Organization, 2020 for similar measures.)

1. How would you rate your level of knowledge on COVID-19?

2. How would you rate your level of knowledge on how to prevent the spread of COVID-19?

Response options (Items 1 and 2): 1: Know very little; 2; 3; 4; 5; 6; 7: Know a great deal

COVID-19 information sources (Study 1)
(See Privy Council Office of Canada, 2020; World Health Organization, 2020.)

1. How often do you use the following sources of information to stay informed about COVID-19?

1.1. Public health leaders/agencies
1.2. Politicians (e.g., press conferences)
1.3. Mainstream news media
1.4. Independent news media
1.5. Alternative media sources (e.g., YouTube, talk radio programs, podcasts)
1.6. Social media (e.g., Facebook, Instagram, Twitter)
1.7. Conversation with friends/family
1.8. Conversation with healthcare workers

Response options (Items 1.1 to 1.8): 1: Never; 2; 3; 4; 5; 6; 7: Always

COVID metaphor items (Study 1)

1. Around the world, researchers and governments are working to develop an approved COVID-19 vaccine. Do you consider this process to be more of a "global effort" or more of a "global race" for this COVID-19 vaccine?

Response options: 1: Global **effort**; 2; 3; 4; 5; 6; 7: Global **race**

2. More than 150 possible vaccines have been in development around the world. It is likely that only a handful will eventually be approved and adopted by governments for widespread public vaccination for COVID-19. How do you think of these eventual "winners" in the search for a vaccine?

Response options: 1: Winners are the **strongest**; 2; 3; 4; 5; 6; 7: Winners are the **fastest**

Government credibility (Study 2a)
(From Rafkin et al., 2020.)

1. How much do you agree with the following statements below about the federal government in the COVID-19 crisis?

1.1. I do not really know what measures the government is taking
1.2. The government is handling this crisis appropriately
1.3. The government is not taking strong enough measures to contain COVID-19
1.4. The government is over-reacting in trying to contain COVID-19
1.5. The government has high-quality information that is not public, and bases its decisions on this information

Response options (Items 1.1 to 1.5): 0 (Strongly Disagree); 1; 2 (Disagree); 3; 4 (Somewhat disagree); 5 (Neither agree nor disagree); 6 (Somewhat agree); 7; 8 (Agree); 9; 10 (Strongly Agree)

Demographic questions (Studies 1 and 2)
(Item 3 was based on Privy Council Office of Canada, 2020. See Federico et al., 2005 for items similar to Items 4 and 5 and see U.S. Census Bureau, 2020 for Item 6.)

** Item 6 was exclusively presented in Study 2.*

1. What is your age, in years?

Response option: Free-entry text box

2. What is your gender?

Response options: Male; Female; Other

3. What is the size of the community you live in?

Response options: Major metropolitan area with population of 1,000,000 or more; Large urban centre with population of 100,000 or more; Medium population centre with population of between 30,000 and 99,999; Small population centre with population between 1,000 and 29,999; Rural area with population of less than 1,000

4. How would you describe your political outlook with regard to social issues?

5. How would you describe your political outlook with regard to economic issues?

Response options (Items 4 and 5): 1: Very liberal; 2: Liberal; 3: Slightly more liberal than conservative; 4: Moderate; 5: Slightly more conservative than liberal; 6: Conservative; 7: Very conservative

6. You may belong to one or more racial or cultural groups on the following list. How do you self-identify?

Response options (non-exclusive): American Indian or Alaska Native; Asian; Black or African American; Hispanic or Latino/a; native Hawaiian or Other Pacific Islander; White; Other [free-entry text box]

Comments and hypotheses

1. Do you have any comments regarding the present survey?

Response option: Free-entry text box

2. What do you expect were the hypotheses (the researchers' main research questions and expectations) of the current research? If you have any guesses, please include them here. Otherwise, you may leave this question blank. Thank you!

Response option: Free-entry text box

Online Appendix B: Descriptive statistics from Study 1

Table B1: Cell means and standard deviations by Guidance condition (Study 1).

Outcome	Consistent Condition	Inconsistent Condition
Perceived change in COVID-19 public health recommendations	4.55 (1.37)*	4.97 (1.28)*
Perceived change in COVID-19 scientific knowledge	5.20 (1.22)	5.42 (1.13)
Expertise of scientists	6.01 (1.02)**	5.57 (1.21)**
Trustworthiness of scientists	5.93 (1.18)*	5.56 (1.27)*
Bias of scientists	2.72 (1.50)	3.03 (1.60)
Expertise of PHA	5.22 (1.31)**	4.75 (1.47)**
Trustworthiness of PHA	5.31 (1.33)	4.98 (1.47)
Bias of PHA	3.34 (1.55)	3.57 (1.57)
COVID-19 vaccination intentions	4.09 (1.10)	3.96 (1.18)
Contact tracing app download intentions	2.76 (1.29)*	2.40 (1.20)*

Note: Asterisks indicate significant differences by guidance condition in the primary analysis as described in the main text. *$p < .05$, **$p < .005$. PHA = public health authorities. $N = 300$, though numbers of usable observations varied across analyses.

Online Appendix C: Study 1 results tables for primary analyses

Table C1: Linear regressions predicting mean perceived change in public health recommendations (Study 1).

Predictor	*B*	*SE*	*p*	*B*	*SE*	*p*
(Intercept)	4.71	0.08	< .001	3.55	0.37	<.001
Guidance Condition	0.43	0.15	.005	0.42	0.15	.005
Country	0.35	0.16	.025	0.30	0.16	.063
Age				0.01[a]	0.01	.692
Gender				0.15	0.16	.331
Urbanicity				0.09	0.07	.176
Conservatism				0.24	0.05	< .001
Observations	300			300		
R^2 / R^2 adjusted	.040 / .034			.126 / .108		

[a] Actual absolute value < 0.01.

Table C2: Linear regressions predicting mean perceived change in COVID-19 scientific knowledge (Study 1).

Predictor	*B*	*SE*	*p*	*B*	*SE*	*p*
(Intercept)	5.28	0.07	< .001	5.31	0.34	< .001
Guidance Condition	0.23	0.14	.093	0.23	0.14	.091
Country	0.25	0.14	.070	0.28	0.15	.062
Age				0.01[a]	0.01	.803
Gender				0.12	0.15	.410
Urbanicity				-0.03	0.06	.629
Conservatism				0.01	0.04	.852
Observations	300			300		
R^2 / R^2 adjusted	.019 / .013			.024 / .004		

[a] Actual absolute value < 0.01.

Table C3: Linear regressions predicting mean rated expertise of scientists (Study 1).

Predictor	*B*	*SE*	*p*	*B*	*SE*	*p*
(Intercept)	5.80	0.07	< .001	4.20	0.51	< .001
Guidance Condition	-0.44	0.13	.001	-0.40	0.12	.001
Country	-0.06	0.13	.638	-0.04	0.13	.741
COVID-19 Protective Behaviors				0.33	0.07	< .001
Age				0.01	0.01	.246
Gender				-0.16	0.13	.219
Urbanicity				-0.02	0.05	.716
Conservatism				-0.20	0.04	< .001
Observations	300			300		
R^2 / R^2 adjusted	.038 / .031			.222 / .203		

Table C4: Linear regressions predicting mean rated trustworthiness of scientists (Study 1).

Predictor	*B*	*SE*	*p*	*B*	*SE*	*p*
(Intercept)	5.71	0.07	< .001	2.97	0.50	< .001
Guidance Condition	-0.36	0.14	.011	-0.30	0.12	.010
Country	0.22	0.15	.131	0.22	0.13	.083
COVID-19 Protective Behaviors				0.54	0.07	< .001
Age				0.01	0.01[a]	.266
Gender				-0.21	0.12	.087
Urbanicity				0.01	0.05	.877
Conservatism				-0.26	0.04	< .001
Observations	300			300		
R^2 / R^2 adjusted	.030 / .023			.371 / .356		

[a] Actual absolute value < 0.01.

Table C5: Linear regressions predicting mean rated bias of scientists (Study 1).

Predictor	*B*	*SE*	*p*	*B*	*SE*	*p*
(Intercept)	2.85	0.09	< .001	3.69	0.66	< .001
Guidance Condition	0.32	0.18	.079	0.27	0.15	.085
Country	0.16	0.19	.378	0.10	0.17	.532
COVID-19 Protective Behaviors				-0.40	0.09	< .001
Age				0.01[a]	0.01	.950
Gender				0.53	0.17	.002
Urbanicity				0.09	0.07	.179
Conservatism				0.41	0.05	< .001
Observations	300			300		
R^2 / R^2 adjusted	.013 / .006			.297 / .281		

[a] Actual absolute value < 0.01.

Table C6: Linear regressions predicting mean rated expertise of public health authorities (Study 1).

Predictor	*B*	*SE*	*p*	*B*	*SE*	*p*
(Intercept)	4.99	0.08	< .001	3.41	0.66	< .001
Guidance Condition	-0.47	0.16	.004	-0.43	0.15	.006
Country	-0.04	0.17	.794	-0.02	0.17	.900
COVID-19 Protective Behaviors				0.31	0.09	< .001
Age				0.01	0.01	.211
Gender				-0.29	0.17	.076
Urbanicity				-0.01	0.07	.887
Conservatism				-0.20	0.05	< .001
Observations	300			300		
R^2 / R^2 adjusted	.027 / .021			.146 / .126		

Table C7: Linear regressions predicting mean rated trustworthiness of public health authorities (Study 1).

Predictor	*B*	*SE*	*p*	*B*	*SE*	*p*
(Intercept)	5.07	0.08	< .001	2.25	0.63	< .001
Guidance Condition	-0.31	0.16	.055	-0.26	0.15	.081
Country	0.57	0.17	.001	0.56	0.16	< .001
COVID-19 Protective Behaviors				0.48	0.08	< .001
Age				0.01	0.01	.164
Gender				-0.24	0.16	.131
Urbanicity				0.02	0.07	.754
Conservatism				-0.18	0.05	< .001
Observations	300			300		
R^2 / R^2 adjusted	.051 / .045			.228 / .209		

Table C8: Linear regressions predicting mean rated bias of public health authorities (Study 1).

Predictor	*B*	*SE*	*p*	*B*	*SE*	*p*
(Intercept)	3.45	0.09	< .001	4.11	0.71	< .001
Guidance Condition	0.22	0.18	.217	0.18	0.16	.263
Country	0.02	0.19	.912	-0.05	0.18	.791
COVID-19 Protective Behaviors				-0.34	0.09	< .001
Age				0.01[a]	0.01	.753
Gender				0.57	0.18	.002
Urbanicity				0.11	0.07	.154
Conservatism				0.32	0.05	< .001
Observations	300			300		
R^2 / R^2 adjusted	.005 / -.002			.195 / .176		

[a] Actual absolute value < 0.01.

Table C9: Linear regressions predicting intention to get a COVID-19 vaccine (Study 1).

Predictor	*B*	*SE*	*p*	*B*	*SE*	*p*
(Intercept)	3.98	0.07	< .001	1.73	0.50	.001
Guidance Condition	-0.12	0.13	.372	-0.05	0.11	.682
Country	0.33	0.14	.015	0.32	0.12	.011
Previous Flu Vaccinations				0.14	0.03	< .001
COVID-19 Protective Behaviors				0.37	0.07	< .001
Age				0.01[a]	0.01	.487
Gender				-0.26	0.12	.037
Urbanicity				0.02	0.05	.669
Conservatism				-0.17	0.04	< .001
Observations	300			297		
R^2 / R^2 adjusted	.023 / .016			.292 / .272		

[a] Actual absolute value < 0.01.

Table C10: Linear regressions predicting intention to download a contact tracing app (Study 1).

Predictor	*B*	*SE*	*p*	*B*	*SE*	*p*	*B*	*SE*	*p*
(Intercept)	2.57	0.08	< .001	2.57	0.08	< .001	1.37	0.66	.038
Guidance Condition	-0.35	0.17	.038	-0.33	0.16	.042	-0.30	0.16	.062
Country	0.38	0.16	.022	0.43	0.16	.010	0.29	0.17	.095
Guidance Condition x Country				-0.82	0.33	.013	-0.76	0.32	.020
COVID-19 Protective Behaviors							0.16	0.09	.070
Age							-0.01[a]	0.01	.498
Gender							0.07	0.17	.702
Urbanicity							0.18	0.07	.017
Conservatism							-0.06	0.05	.218
Observations	222			222			222		
R^2 / R^2 adjusted	.043 / .034			.069 / .057			.136 / .103		

[a] Actual absolute value < 0.01.

Online Appendix D: Study 1 analyses of moderation by beliefs regarding the positivity of changes in scientific conclusions regarding COVID-19

Table D1: Linear regressions predicting mean rated expertise of scientists (Study 1).

Predictor	*B*	*SE*	*p*	*B*	*SE*	*p*	*B*	*SE*	*p*
(Intercept)	5.80	0.06	< .001	5.80	0.06	< .001	4.68	0.48	< .001
Guidance Condition	-0.37	0.12	.002	-0.33	0.12	.006	-0.33	0.11	.005
Country	-0.11	0.12	.367	-0.10	0.12	.403	-0.11	0.12	.380
Change Beliefs	0.41	0.05	< .001	0.44	0.05	< .001	0.34	0.05	< .001
Guidance Condition x Country				-0.32	0.24	.175	-0.27	0.23	.239
Guidance Condition x Change Beliefs				0.01	0.09	.893	-0.01	0.09	.930
Country x Change Beliefs				-0.28	0.09	.003	-0.23	0.09	.012
COVID-19 Protective Behaviors							0.22	0.07	.001
Age							0.01[a]	0.01[a]	.571
Gender							-0.10	0.12	.428
Urbanicity							0.02	0.05	.639
Conservatism							-0.13	0.04	.001
Observations	300			300			300		
R^2 / R^2 adjusted	.240 / .233			.266 / .251			.334 / .308		

[a] Actual absolute value < 0.01.

Table D2: Linear regressions predicting mean rated trustworthiness of scientists (Study 1).

Predictor	*B*	*SE*	*p*	*B*	*SE*	*p*	*B*	*SE*	*p*
(Intercept)	5.72	0.06	< .001	5.72	0.06	< .001	3.53	0.45	< .001
Guidance Condition	-0.27	0.12	.025	-0.22	0.12	.077	-0.21	0.11	.055
Country	0.16	0.12	.185	0.18	0.12	.150	0.14	0.11	.207
Change Beliefs	0.54	0.05	< .001	0.57	0.05	< .001	0.41	0.05	< .001
Guidance Condition x Country				-0.45	0.24	.069	-0.37	0.22	.087
Guidance Condition x Change Beliefs				-0.05	0.10	.635	-0.08	0.08	.342
Country x Change Beliefs				-0.33	0.10	.001	-0.25	0.08	.004
COVID-19 Protective Behaviors							0.40	0.06	< .001
Age							0.01[a]	0.01[a]	.750
Gender							-0.14	0.11	.214
Urbanicity							0.06	0.05	.212
Conservatism							-0.18	0.03	< .001
Observations	300			300			300		
R^2 / R^2 adjusted	.320 / .313			.353 / .340			.510 / .492		

[a] Actual absolute value < 0.01.

Table D3: Linear regressions predicting mean rated bias of scientists (Study 1).

Predictor	*B*	*SE*	*p*	*B*	*SE*	*p*	*B*	*SE*	*p*
(Intercept)	2.85	0.08	< .001	2.84	0.08	< .001	3.20	0.63	< .001
Guidance Condition	0.21	0.16	.179	0.23	0.17	.171	0.22	0.15	.136
Country	0.23	0.16	.162	0.24	0.17	.151	0.20	0.16	.199
Change Beliefs	-0.60	0.06	< .001	-0.62	0.07	< .001	-0.43	0.07	< .001
Guidance Condition x Country				-0.07	0.33	.826	-0.09	0.30	.758
Guidance Condition x Change Beliefs				0.02	0.13	.850	0.07	0.12	.584
Country x Change Beliefs				0.15	0.13	.256	0.09	0.12	.474
COVID-19 Protective Behaviors							-0.27	0.09	.002
Age							0.01[a]	0.01	.470
Gender							0.42	0.16	.007
Urbanicity							0.04	0.07	.540
Conservatism							0.32	0.05	< .001
Observations	300			300			300		
R^2 / R^2 adjusted	.241 / .233			.244 / .229			.388 / .365		

[a] Actual absolute value < 0.01.

Table D4: Linear regressions predicting mean rated expertise of public health authorities (Study 1).

Predictor	*B*	*SE*	*p*	*B*	*SE*	*p*	*B*	*SE*	*p*
(Intercept)	4.99	0.08	< .001	4.99	0.08	< .001	3.65	0.65	< .001
Guidance Condition	-0.40	0.15	.010	-0.36	0.16	.023	-0.36	0.16	.022
Country	-0.09	0.16	.586	-0.07	0.16	.655	-0.07	0.16	.671
Change Beliefs	0.39	0.06	< .001	0.38	0.06	< .001	0.26	0.07	< .001
Guidance Condition x Country				-0.24	0.32	.458	-0.20	0.31	.521
Guidance Condition x Change Beliefs				0.04	0.13	.767	0.02	0.12	.882
Country x Change Beliefs				0.09	0.12	.466	0.14	0.12	.259
COVID-19 Protective Behaviors							0.24	0.09	.007
Age							0.01[a]	0.01	.455
Gender							-0.23	0.16	.154
Urbanicity							0.02	0.07	.715
Conservatism							-0.14	0.05	.006
Observations	300			300			300		
R^2 / R^2 adjusted	.144 / .136			.148 / .130			.203 / .172		

[a] Actual absolute value < 0.01.

Table D5: Linear regressions predicting mean rated trustworthiness of public health authorities (Study 1).

Predictor	*B*	*SE*	*p*	*B*	*SE*	*p*	*B*	*SE*	*p*
(Intercept)	5.07	0.07	< .001	5.08	0.08	< .001	2.65	0.61	< .001
Guidance Condition	-0.23	0.14	.121	-0.19	0.15	.200	-0.18	0.14	.208
Country	0.51	0.15	.001	0.53	0.15	.001	0.49	0.15	.001
Change Beliefs	0.48	0.06	< .001	0.48	0.06	< .001	0.36	0.06	< .001
Guidance Condition x Country				-0.26	0.30	.387	-0.21	0.29	.477
Guidance Condition x Change Beliefs				0.08	0.12	.479	0.06	0.11	.592
Country x Change Beliefs				-0.08	0.12	.524	-0.01[a]	0.11	.989
COVID-19 Protective Behaviors							0.37	0.08	< .001
Age							0.01[a]	0.01	.424
Gender							-0.16	0.15	.292
Urbanicity							0.07	0.06	.279
Conservatism							-0.10	0.05	.035
Observations	300			300			300		
R^2 / R^2 adjusted	.229 / .221			.233 / .217			.313 / .287		

[a] Actual absolute value < 0.01.

Table D6: Linear regressions predicting mean rated bias of public health authorities (Study 1).

Predictor	*B*	*SE*	*p*	*B*	*SE*	*p*	*B*	*SE*	*p*
(Intercept)	3.45	0.09	< .001	3.44	0.09	< .001	3.85	0.71	< .001
Guidance Condition	0.15	0.17	.382	0.17	0.18	.336	0.17	0.17	.320
Country	0.07	0.18	.702	0.07	0.18	.675	0.02	0.18	.923
Change Beliefs	-0.43	0.07	< .001	-0.43	0.07	< .001	-0.26	0.07	< .001
Guidance Condition x Country				-0.16	0.36	.659	-0.15	0.34	.665
Guidance Condition x Change Beliefs				-0.02	0.14	.863	0.01	0.13	.933
Country x Change Beliefs				0.01	0.14	.955	-0.05	0.13	.710
COVID-19 Protective Behaviors							-0.27	0.10	.006
Age							0.01[a]	0.01	.483
Gender							0.49	0.18	.005
Urbanicity							0.07	0.07	.326
Conservatism							0.26	0.05	< .001
Observations	300			300			300		
R^2 / R^2 adjusted	.122 / .113			.123 / .105			.233 / .204		

[a] Actual absolute value < 0.01.

Table D7: Linear regressions predicting intention to get a COVID-19 vaccine (Study 1).

Predictor	*B*	*SE*	*p*	*B*	*SE*	*p*	*B*	*SE*	*p*
(Intercept)	3.99	0.07	< .001	3.98	0.07	< .001	1.81	0.50	< .001
Guidance Condition	-0.07	0.13	.580	-0.02	0.13	.898	0.02	0.12	.892
Country	0.30	0.13	.020	0.32	0.13	.014	0.32	0.12	.012
Change Beliefs	0.27	0.05	< .001	0.28	0.05	< .001	0.11	0.05	.036
Guidance Condition x Country				-0.39	0.26	.142	-0.36	0.24	.135
Guidance Condition x Change Beliefs				-0.01	0.10	.886	0.03	0.09	.785
Country x Change Beliefs				0.01a	0.10	.996	0.06	0.09	.496
Previous Flu Vaccinations							0.14	0.03	< .001
COVID-19 Protective Behaviors							0.35	0.07	< .001
Age							0.01[a]	0.01	.681
Gender							-0.24	0.12	.051
Urbanicity							0.03	0.05	.501
Conservatism							-0.14	0.04	< .001
Observations	300			300			297		
R^2 / R^2 adjusted	.113 / .104			.119 / .101			.312 / .283		

[a] Actual absolute value < 0.01.

Table D8: Linear regressions predicting intention to download a contact tracing app (Study 1).

Predictor	*B*	*SE*	*p*	*B*	*SE*	*p*	*B*	*SE*	*p*
(Intercept)	2.58	0.08	< .001	2.58	0.08	< .001	1.61	0.66	.016
Guidance Condition	-0.33	0.17	.046	-0.31	0.16	.059	-0.28	0.16	.080
Country	0.39	0.16	.019	0.41	0.16	.012	0.24	0.17	.160
Change Beliefs	0.12	0.06	.064	0.11	0.07	.097	0.07	0.07	.305
Guidance Condition x Country				-0.85	0.33	.009	-0.80	0.32	.014
Guidance Condition x Change Beliefs				0.07	0.13	.574	0.09	0.13	.501
Country x Change Beliefs				-0.25	0.13	.047	-0.25	0.13	.050
COVID-19 Protective Behaviors							0.10	0.09	.269
Age							-0.01	0.01	.458
Gender							0.08	0.17	.626
Urbanicity							0.20	0.07	.006
Conservatism							-0.05	0.05	.350
Observations	222			222			222		
R^2 / R^2 adjusted	.058 / .045			.102 / .077			.158 / .114		

Online Appendix E: Exploratory analyses of familiarity ratings as an outcome

Familiarity judgments were intended to prompt participants to pay attention. Nonetheless, we examined familiarity as an outcome, averaging across messages (α = .73 for inconsistent and α = .61 for consistent). For Study 1, a linear regression with predictors of Guidance condition and Country yielded a significant effect of Guidance condition (B = -0.75, SE = 0.11, p < .001), such that familiarity was higher for Consistent (M = 6.25, SD = 0.69) than for Inconsistent (M = 5.50, SD = 1.16) messages (see Table E1). For Study 2, a linear regression with predictors of Guidance, Forewarning, Guidance x Forewarning , Data Set, Age, and Guidance x Age yielded a significant effect of Guidance (B = -0.57, SE = 0.07, p < .001) and a significant Guidance x Forewarning interaction (B = 0.20, SE = 0.10, p = .039) such that the simple effect of Guidance condition was greater in the No Forewarning condition (B = -0.57, SE = 0.07, p < .001) than in the Forewarning condition (B = -0.37, SE = 0.07, p < .001; see Table E2). Any explanation is speculative, but perhaps consistency led to positive affect, which was misattributed to familiarity (Claypool et al., 2008; Garcia-Marques et al., 2004), especially when forewarning was absent. The lower familiarity of inconsistent messages might also be mathematical: to the extent that consistent messages convey just one piece of information whereas inconsistent messages convey two, familiarity with both elements would be less likely than familiarity with one. In any case, there are many possible reasons for these effects, which might benefit from further examination in the future.

Table E1: Linear regression predicting mean familiarity ratings (Study 1).

Predictor	*B*	*SE*	*p*
(Intercept)	5.89	0.06	< .001
Guidance Condition	-0.75	0.11	< .001
Country	-0.09	0.12	.443
Observations	300		
R^2 / R^2 adjusted	.131 / .125		

Table E2: Linear regressions predicting mean familiarity ratings (Study 2).

Predictor	*B*	*SE*	*p*	*B*	*SE*	*p*
(Intercept)	6.10	0.03	< .001	6.10	0.03	< .001
Guidance Condition	-0.47	0.05	< .001	-0.57	0.07	< .001
Forewarning Condition	0.03	0.05	.568	0.02	0.05	.626
Data Set	-0.04	0.05	.368	-0.05	0.05	.330
Age				0.01[a]	0.01[a]	.193
Guidance Condition x Forewarning Condition				0.20	0.10	.039
Guidance Condition x Age				0.01[a]	0.01[a]	.926
Observations	1399			1399		
R^2 / R^2 adjusted	.063 / .061			.067 / .063		

[a] Actual absolute value < 0.01.

Online Appendix F: Study 2 differences across studies and deviations from preregistration

Differences across Studies 2a and 2b

Study 2a results were often in line with our predictions directionally, yet the observed effects were small. Therefore, we increased power to detect effects in Study 2b. We made the Guidance manipulation more blatant, made message sources and ratings specific to public health authorities rather than potentially diluting effects by including scientists, presented source ratings (e.g., expertise) as pairs in separate blocks to encourage distinctions, and increased our sample size. We also changed the social (physical) distancing messages to be more parallel across Guidance conditions.

Deviations from preregistration

Our preregistered hypotheses included covariates, but we inadvertently forgot to ensure that both manipulations (i.e., Guidance condition and Forewarning condition) were included as independent variables in all preregistered models in Study 2a. Therefore, analyses deviate from Study 2a preregistration by virtue of always including both Guidance and Forewarning as predictors. We also elected to include a Guidance x Forewarning interaction term, even in models where an interaction was not expected (and in this way deviate from Study 2b preregistration as well). An additional minor correction: Whereas Study 2a preregistration materials have "perceived positivity of changes in scientific conclusions regarding COVID-19" labelled as H4 at first, then H5 later, this label should always have been H4.

In addition, whereas the Study 2b preregistration wording suggested that certain hypotheses would be conducted within subsets of the data (stating, for example, "when a forewarning intervention is not used"), all regression analyses examine effects of Guidance

conditional on No Forewarning. This technically incorporates all of the data, though probing a specific condition. Means and standard deviations are reported within corresponding subsets of data (e.g., reporting means divided by Guidance using all of the data for analyses of change-related manipulation checks because no interaction with Forewarning was expected, and using the No Forewarning subset only for analyses for which Forewarning condition was expected to moderate effects of Guidance).

Our preregistered hypotheses were listed separately for those involving Guidance and those involving Forewarning, but we ultimately tested these hypotheses in models that included both terms and their interaction, such that the effect of Guidance was conditional on the No Forewarning condition. In addition, Study 2a's preregistration conflated "trustworthiness and expertise of scientists and public health officials", though Study 2b only examined impressions of public health officials and included separate hypotheses for each trait. In addition, Study 2a's preregistration treated judgments of bias and intentions to vaccinate as exploratory, whereas Study 2b (informed by Study 2a) included hypotheses regarding these outcomes. These can be considered exploratory.

Online Appendix G: Study 2 analyses of covariates as outcomes

We ran exploratory regressions in which Guidance, Forewarning, Data Set, and interactions (including those involving Data Set if $p < .100$) were used to predict each covariate. In models for which terms involving Forewarning were significant or almost significant ($p < .100$), we added analogous term(s) that replaced Forewarning with Age (mean-centered) because we had found an association between Age and Forewarning condition.

Guidance condition predicted reported COVID-19 protective behaviors ($B = -0.17$, $SE = 0.08$, $p = .036$), but this effect was qualified by a significant Guidance x Forewarning interaction *(*$B = 0.29$, $SE = 0.12$, $p = .015$; see Figure G1). Without Forewarning, reported protective behaviors were lower in the Inconsistent condition ($M = 6.22$, $SD = 1.19$) than in the Consistent condition ($M = 6.39$, $SD = 1.02$; $B = -0.17$, $SE = 0.08$, $p = .036$), whereas with Forewarning, reported protective behaviors were similar amid inconsistency ($M = 6.34$, $SD = 1.04$) or consistency ($M = 6.23$, $SD = 1.10$; $B = 0.11$, $SE = 0.08$, $p = .172$). Described differently, in the Inconsistent condition, Forewarning did not significantly affect reported health behaviors ($B = 0.12$, $SE = 0.08$, $p = .146$) whereas in the Consistent condition, Forewarning led to lower reports ($B = -0.16$, $SE = 0.08$, $p = .046$). In addition, there was a significant association between Forewarning condition and age, such that those in the Forewarning condition tended to be older ($M = 41.03$, $SD = 13.23$) than participants in the No Forewarning condition ($M = 38.97$, $SD = 12.08$; $B = 2.12$, $SE = 0.68$, $p = .002$). Of secondary importance, Data Set was significantly associated with gender among those reporting male or female gender ($B = 0.75$, $SE = 0.08$, $p = .009$), and associations between Data Set and age ($B = 1.21$, $SE = 0.68$, $p = .077$) and between Guidance condition and urbanicity ($p = .099$) were almost significant. See Tables G1 through G6 for all regression results.

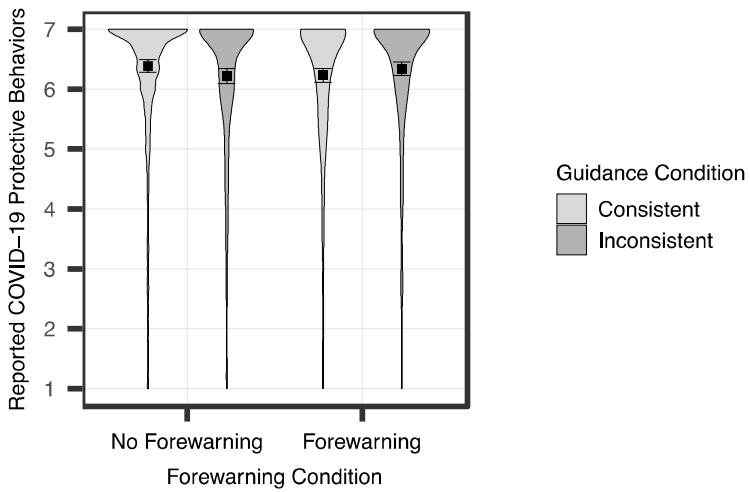

Figure G1: Reported COVID-19 protective behaviors as a function of Guidance condition and Forewarning condition (Study 2).

Points represent means and error bars represent 95% CI. *N* = 1399.

Table G1: Linear regressions predicting COVID-19 protective behaviors (Study 2).

Predictor	*B*	*SE*	*p*	*B*	*SE*	*p*
(Intercept)	6.30	0.04	< .001	6.30	0.04	< .001
Guidance Condition	-0.03	0.06	.588	-0.17	0.08	.036
Forewarning Condition	-0.02	0.06	.729	-0.02	0.06	.712
Data Set	-0.01a	0.06	.942	-0.01	0.06	.910
Age				0.01[a]	0.01[a]	.488
Guidance Condition x Forewarning Condition				0.29	0.12	.015
Guidance Condition x Age				-0.01[a]	0.01[a]	.405
Observations	1399			1399		
R^2 / R^2 adjusted	.001[b] / -.002			.005 / .001		

[a] Actual absolute value < 0.01.
[b] Actual absolute value < 0.001.

Table G2: Linear regressions predicting age (Study 2).

Predictor	*B*	*SE*	*p*	*B*	*SE*	*p*
(Intercept)	38.86	0.48	< .001	38.85	0.48	< .001
Guidance Condition	-0.34	0.68	.620	-0.39	0.95	.680
Forewarning Condition	2.12	0.68	.002	2.12	0.68	.002
Data Set	1.21	0.68	.077	1.21	0.68	.077
Guidance Condition x Forewarning Condition				0.11	1.35	.933
Observations	1399			1399		
R^2 / R^2 adjusted	.009 / .007			.009 / .006		

Table G3: Linear regressions predicting urbanicity (Study 2).

Predictor	*B*	*SE*	*p*	*B*	*SE*	*p*
(Intercept)	3.26	0.07	< .001	3.26	0.07	< .001
Guidance Condition	-0.16	0.09	.093	-0.22	0.13	.099
Forewarning Condition	0.10	0.09	.304	0.09	0.09	.317
Guidance Condition x Forewarning Condition				0.12	0.19	.506
Observations	601			601		
R^2 / R^2 adjusted	.006 / .003			.007 / .002		

Table G4: Linear regressions predicting conservatism (Study 2).

Predictor	*B*	*SE*	*p*	*B*	*SE*	*p*
(Intercept)	3.38	0.07	< .001	3.38	0.07	< .001
Guidance Condition	0.06	0.10	.497	0.21	0.13	.125
Forewarning Condition	0.11	0.10	.239	0.11	0.10	.247
Data Set	-0.04	0.10	.643	-0.04	0.10	.650
Guidance Condition x Forewarning Condition				-0.29	0.19	.134
Observations	1398			1398		
R^2 / R^2 adjusted	.002 / -.001			.003 / .001[a]		

[a] Actual absolute value < 0.001.

Table G5: Linear regressions predicting previous flu vaccinations (Study 2).

Predictor	*B*	*SE*	*p*	*B*	*SE*	*p*
(Intercept)	2.07	0.08	< .001	2.07	0.08	< .001
Guidance Condition	-0.03	0.11	.822	-0.01	0.16	.934
Forewarning Condition	0.10	0.11	.369	0.10	0.11	.371
Data Set	0.16	0.11	.151	0.16	0.11	.151
Guidance Condition x Forewarning Condition				-0.02	0.22	.912
Observations	1390			1390		
R^2 / R^2 adjusted	.002 / -.001[a]			.002 / -.001		

[a] Actual absolute value < 0.001.

Table G6: Binary logistic regression predicting gender among subset reporting male or female gender (Study 2).

Predictor	*B*	*SE*	*p*	*B*	*SE*	*p*
(Intercept)	0.97	0.07	.679	0.97	0.07	.680
Guidance Condition	1.04	0.11	.697	1.05	0.16	.728
Forewarning Condition	1.09	0.12	.431	1.09	0.12	.432
Data Set	0.75	0.08	.009	0.75	0.08	.009
Guidance Condition x Forewarning Condition				0.98	0.21	.920
Observations	1387			1387		
R^2 Tjur	.006			.006		

Online Appendix H: Study 2 results tables for primary analyses

Table H1: Linear regressions predicting perceived change in U.S. public health recommendations (Study 2).

Predictor	*B*	*SE*	*p*	*B*	*SE*	*p*	*B*	*SE*	*p*
(Intercept)	4.76	0.05	< .001	4.77	0.05	< .001	4.09	0.15	< .001
Guidance Condition	0.75	0.07	< .001	0.71	0.10	< .001	0.69	0.10	< .001
Forewarning Condition	-0.07	0.07	.316	-0.07	0.07	.312	-0.09	0.07	.189
Data Set	-0.13	0.07	.064	-0.13	0.07	.064	-0.13	0.07	.063
Guidance Condition x Forewarning Condition				0.05	0.14	.732	0.09	0.14	.503
Guidance Condition x Data Set				0.28	0.14	.053	0.26	0.14	.067
Age							0.01[a]	0.01[a]	.431
Gender [Female]							0.34	0.26	.201
Gender [Male]							0.29	0.26	.274
Conservatism							0.15	0.02	< .001
Previous Flu Vaccinations							0.01	0.02	.550
Observations	1399			1399			1389		
R^2 / R^2 adjusted	.078 / .076			.081 / .078			.125 / .118		

[a] Actual absolute value < 0.01.

Table H2: Linear regressions predicting perceived change in scientific findings (Study 2a).

Predictor	*B*	*SE*	*p*	*B*	*SE*	*p*	*B*	*SE*	*p*
(Intercept)	5.24	0.07	< .001	5.24	0.07	< .001	4.77	0.27	< .001
Guidance Condition	0.28	0.10	.007	0.35	0.15	.020	0.39	0.15	.010
Forewarning Condition	0.03	0.10	.754	0.03	0.10	.737	0.02	0.10	.825
Guidance Condition x Forewarning Condition				-0.12	0.21	.553	-0.15	0.21	.485
Age							0.01[a]	0.01[a]	.393
Gender [Female]							0.15	0.40	.700
Gender [Male]							-0.21	0.40	.592
Urbanicity							0.09	0.05	.048
Conservatism							0.04	0.03	.155
Previous Flu Vaccinations							0.02	0.03	.426
Observations	601			601			598		
R^2 / R^2 adjusted	.012 / .009			.013 / .008			.031 / .016		

[a] Actual absolute value < 0.01.

Table H3: Linear regressions predicting acceptability of change in COVID-19 health guidance (Study 2).

Predictor	*B*	*SE*	*p*	*B*	*SE*	*p*	*B*	*SE*	*p*
(Intercept)	5.72	0.05	< .001	5.73	0.05	< .001	6.55	0.13	< .001
Guidance Condition	-0.07	0.07	.293	-0.15	0.09	.095	-0.14	0.09	.121
Forewarning Condition	0.17	0.07	.008	0.15	0.07	.022	0.17	0.06	.007
Data Set	-0.14	0.07	.031	-0.30	0.09	.001	-0.31	0.09	< .001
Age	0.01[a]	0.01[a]	.208	0.01[a]	0.01[a]	.344	0.01	0.01[a]	< .001
Guidance Condition x Forewarning Condition				0.17	0.13	.198	0.15	0.12	.235
Forewarning Condition x Data Set				0.32	0.13	.015	0.26	0.12	.035
Data Set x Age				0.01	0.01	.332	-0.01[a]	0.01[a]	.848
Gender [Female]							-0.16	0.23	.495
Gender [Male]							-0.35	0.23	.122
Conservatism							-0.25	0.02	< .001
Previous Flu Vaccinations							0.07	0.01	< .001
Guidance Condition x Data Set							0.36	0.17	.041
Guidance Condition x Age							-0.01	0.01[a]	.167
Guidance Condition x Forewarning Condition x Data Set							-0.38	0.25	.124
Guidance Condition x Data Set x Age							-0.01	0.01	.162
Observations	1399			1399			1389		
R^2 / R^2 adjusted	.011 / .008			.017 / .012			.167 / .158		

[a] Actual absolute value < 0.01.

Table H4: Linear regressions predicting beliefs about the positivity of change in COVID-19 science (Study 2a).

Predictor	*B*	*SE*	*p*	*B*	*SE*	*p*	*B*	*SE*	*p*
(Intercept)	5.71	0.07	< .001	5.71	0.07	< .001	6.70	0.23	< .001
Guidance Condition	-0.19	0.10	.065	-0.28	0.15	.060	-0.23	0.13	.070
Forewarning Condition	0.02	0.10	.868	0.01	0.10	.893	0.09	0.09	.344
Guidance Condition x Forewarning Condition				0.17	0.21	.406	0.15	0.18	.407
Age							0.01	0.01[a]	.009
Gender [Female]							-0.24	0.35	.493
Gender [Male]							-0.33	0.34	.346
Urbanicity							0.04	0.04	.314
Conservatism							-0.33	0.03	< .001
Previous Flu Vaccinations							0.07	0.02	.001
Observations	601			601			598		
R^2 / R^2 adjusted	.006 / .002			.007 / .002			.249 / .238		

[a] Actual absolute value < 0.01.

Table H5: Linear regressions predicting mean rated expertise of scientists (Study 2a).

Predictor	*B*	*SE*	*p*	*B*	*SE*	*p*	*B*	*SE*	*p*
(Intercept)	5.69	0.07	< .001	5.69	0.07	< .001	6.67	0.23	< .001
Guidance Condition	-0.10	0.10	.329	-0.12	0.15	.411	-0.09	0.13	.468
Forewarning Condition	-0.05	0.10	.599	-0.05	0.10	.594	0.03	0.09	.717
Guidance Condition x Forewarning Condition				0.04	0.21	.842	0.04	0.18	.812
Age							0.01[a]	0.01[a]	.656
Gender [Female]							-0.28	0.34	.417
Gender [Male]							0.09	0.34	.790
Urbanicity							-0.01[a]	0.04	.945
Conservatism							-0.34	0.03	< .001
Previous Flu Vaccinations							0.09	0.02	< .001
Observations	601			601			598		
R^2 / R^2 adjusted	.002 / -.001			.002 / -.003			.269 / .258		

[a] Actual absolute value < 0.01.

Table H6: Linear regressions predicting mean rated trustworthiness of scientists (Study 2a).

Predictor	*B*	*SE*	*p*	*B*	*SE*	*p*	*B*	*SE*	*p*
(Intercept)	5.61	0.08	< .001	5.62	0.08	< .001	6.62	0.24	< .001
Guidance Condition	-0.12	0.11	.260	-0.27	0.16	.094	-0.22	0.13	.097
Forewarning Condition	-0.01	0.11	.930	-0.01	0.11	.892	0.09	0.09	.336
Guidance Condition x Forewarning Condition				0.28	0.22	.214	0.28	0.18	.136
Age							0.01[a]	0.01[a]	.419
Gender [Female]							-0.17	0.35	.625
Gender [Male]							0.10	0.35	.774
Urbanicity							0.01	0.04	.730
Conservatism							-0.39	0.03	< .001
Previous Flu Vaccinations							0.13	0.02	< .001
Observations	601			601			598		
R^2 / R^2 adjusted	.002 / -.001			.005 / -.001[b]			.322 / .312		

[a] Actual absolute value < 0.01.
[b] Actual absolute value < 0.001.

Table H7: Linear regressions predicting mean rated bias of scientists (Study 2a).

Predictor	*B*	*SE*	*p*	*B*	*SE*	*p*	*B*	*SE*	*p*
(Intercept)	2.92	0.10	< .001	2.91	0.09	< .001	1.24	0.29	< .001
Guidance Condition	0.15	0.13	.243	0.37	0.19	.050	0.33	0.16	.044
Forewarning Condition	-0.19	0.13	.150	-0.18	0.13	.168	-0.31	0.11	.006
Guidance Condition x Forewarning Condition				-0.43	0.26	.109	-0.42	0.23	.066
Age							-0.01	0.01	.020
Gender [Female]							0.31	0.43	.471
Gender [Male]							0.14	0.43	.751
Urbanicity							0.04	0.05	.438
Conservatism							0.48	0.03	< .001
Previous Flu Vaccinations							-0.08	0.03	.004
Guidance Condition x Age							0.01[a]	0.01	.928
Observations	601			601			598		
R^2 / R^2 adjusted	.006 / .002			.010 / .005			.293 / .281		

[a] Actual absolute value < 0.01.

Table H8: Linear regressions predicting mean rated expertise of public health authorities (Study 2).

Predictor	*B*	*SE*	*p*	*B*	*SE*	*p*	*B*	*SE*	*p*
(Intercept)	5.08	0.05	< .001	5.09	0.05	< .001	5.92	0.15	< .001
Guidance Condition	-0.14	0.08	.058	-0.39	0.11	< .001	-0.31	0.10	.001
Forewarning Condition	-0.04	0.08	.561	-0.05	0.08	.490	-0.02	0.07	.726
Data Set	0.30	0.08	< .001	0.16	0.11	.142	0.27	0.07	< .001
Age				-0.01[a]	0.01[a]	.380	0.01[a]	0.01[a]	.163
Guidance Condition x Forewarning Condition				0.49	0.15	.001	0.38	0.14	.006
Forewarning Condition x Data Set				0.28	0.15	.071			
Guidance Condition x Age				-0.01	0.01	.226	-0.01	0.01	.142
Data Set x Age				-0.01	0.01	.418			
Gender [Female]							-0.11	0.26	.661
Gender [Male]							0.06	0.26	.811
Conservatism							-0.31	0.02	< .001
Previous Flu Vaccinations							0.11	0.02	< .001
Observations	1399			1399			1389		
R^2 / R^2 adjusted	.014 / .012			.025 / .019			.201 / .195		

[a] Actual absolute value < 0.01.

Table H9: Linear regressions predicting mean rated trustworthiness of public health authorities (Study 2).

Predictor	*B*	*SE*	*p*	*B*	*SE*	*p*	*B*	*SE*	*p*
(Intercept)	4.97	0.06	< .001	4.96	0.06	< .001	5.84	0.16	< .001
Guidance Condition	-0.14	0.08	.102	-0.38	0.12	.001	-0.29	0.10	.005
Forewarning Condition	0.05	0.08	.545	0.06	0.08	.437	0.08	0.07	.306
Data Set	0.18	0.08	.030	0.19	0.08	.025	0.14	0.08	.064
Age				-0.01	0.01[a]	.116	0.01[a]	0.01[a]	.328
Guidance Condition x Forewarning Condition				0.49	0.17	.003	0.39	0.15	.009
Guidance Condition x Age				-0.01	0.01	.218	-0.01	0.01	.112
Gender [Female]							0.16	0.28	.563
Gender [Male]							0.19	0.28	.494
Conservatism							-0.36	0.02	< .001
Previous Flu Vaccinations							0.13	0.02	< .001
Observations	1399			1399			1389		
R^2 / R^2 adjusted	.006 / .004			.014 / .010			.219 / .214		

[a] Actual absolute value < 0.01.

Table H10: Linear regressions predicting mean rated bias of public health authorities (Study 2).

Predictor	*B*	*SE*	*p*	*B*	*SE*	*p*	*B*	*SE*	*p*
(Intercept)	3.43	0.07	< .001	3.43	0.07	< .001	2.11	0.18	< .001
Guidance Condition	0.15	0.09	.093	0.36	0.13	.005	0.25	0.12	.035
Forewarning Condition	-0.10	0.09	.277	-0.10	0.09	.259	-0.12	0.08	.140
Data Set	-0.19	0.09	.040	-0.19	0.09	.041	-0.16	0.08	.060
Age				0.01[a]	0.01[a]	.869	-0.01	0.01[a]	.003
Guidance Condition x Forewarning Condition				-0.42	0.18	.022	-0.28	0.17	.087
Guidance Condition x Age				0.01[a]	0.01	.904	0.01[a]	0.01	.786
Gender [Female]							0.13	0.31	.685
Gender [Male]							0.18	0.31	.571
Conservatism							0.42	0.02	< .001
Previous Flu Vaccinations							-0.09	0.02	< .001
Observations	1399			1399			1389		
R^2 / R^2 adjusted	.006 / .004			.010 / .005			.209 / .204		

[a] Actual absolute value < 0.01.

Table H11: Linear regressions predicting mean rated usefulness of public health authorities (Study 2b).

Predictor	*B*	*SE*	*p*	*B*	*SE*	*p*	*B*	*SE*	*p*
(Intercept)	5.28	0.07	< .001	5.27	0.07	< .001	6.40	0.13	< .001
Guidance Condition	-0.10	0.11	.373	-0.33	0.15	.025	-0.21	0.13	.102
Forewarning Condition	0.15	0.11	.157	0.17	0.11	.109	0.15	0.09	.113
Age				-0.01[a]	0.01[a]	.356			
Guidance Condition x Forewarning Condition				0.50	0.22	.021	0.29	0.19	.129
Guidance Condition x Age				-0.01	0.01	.156			
Conservatism							-0.39	0.03	< .001
Previous Flu Vaccinations							0.10	0.02	< .001
Observations	798			798			791		
R^2 / R^2 adjusted	.003 / .001			.013 / .007			.247 / .242		

[a] Actual absolute value < 0.01.

Table H12: Linear regressions predicting intention to get a COVID-19 vaccine (Study 2).

Predictor	*B*	*SE*	*p*	*B*	*SE*	*p*	*B*	*SE*	*p*
(Intercept)	3.73	0.05	< .001	3.72	0.05	< .001	4.35	0.12	< .001
Guidance Condition	-0.06	0.07	.381	-0.20	0.10	.043	-0.15	0.08	.066
Forewarning Condition	0.11	0.07	.121	0.11	0.07	.113	0.10	0.06	.082
Data Set	-0.07	0.07	.333	-0.07	0.07	.317	-0.11	0.06	.069
Age				-0.01	0.01[a]	.092	0.01	0.01[a]	.030
Guidance Condition x Forewarning Condition				0.28	0.14	.048	0.22	0.12	.056
Forewarning Condition x Age				0.01	0.01	.024			
Gender [Female]							-0.40	0.22	.064
Gender [Male]							0.23	0.22	.290
Conservatism							-0.30	0.02	< .001
Previous Flu Vaccinations							0.22	0.01	< .001
Guidance Condition x Age							-0.01	0.01[a]	.112
Observations	1399			1399			1389		
R^2 / R^2 adjusted	.003 / .001			.009 / .005			.320 / .315		

[a] Actual absolute value < 0.01.

Online Appendix I: Study 2 analyses of time to page submission for (in)consistent messages

We conducted exploratory analyses to examine whether forewarning increased cognitive load, thereby reducing processing of the (in)consistent messages. The data do not indicate a significant effect of forewarning condition on reading time (time to page submission; see Table I1), nor log-transformed time to page submission (see Table I2). Thus, we do not have evidence for this alternative explanation to the extent that it predicts a reduction of time spent reading the (in)consistent messages.

Table I1: Linear regressions predicting time to page submission for (in)consistent messages (Study 2).

Predictor	*B*	*SE*	*p*	*B*	*SE*	*p*
(Intercept)	61.21	3.26	< .001	61.20	3.26	< .001
Guidance Condition	4.32	4.62	.350	2.78	6.48	.668
Forewarning Condition	-6.58	4.62	.154	-6.56	4.62	.155
Data Set	5.81	4.67	.213	5.81	4.67	.214
Guidance Condition x Forewarning Condition				3.12	9.23	.735
Observations	1399			1399		
R^2 / R^2 adjusted	.003 / .001			.003 / .001[a]		

[a] Actual absolute value < 0.001.

Table I2: Linear regressions predicting log-transformed time to page submission for (in)consistent messages (Study 2).

Predictor	*B*	*SE*	*p*	*B*	*SE*	*p*
(Intercept)	1.63	0.01	< .001	1.63	0.01	< .001
Guidance Condition	0.05	0.02	.007	0.05	0.02	.040
Forewarning Condition	-0.02	0.02	.369	-0.02	0.02	.368
Data Set	0.07	0.02	< .001	0.07	0.02	< .001
Guidance Condition x Forewarning Condition				-0.01	0.03	.871
Observations	1399			1399		
R^2 / R^2 adjusted	.016 / 0.014			.016 / .013		

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