

TYLENOL AND AUTISM: SUPPLEMENTAL INFORMATION

Endorsement of Increased-Risk Claims About Tylenol and Autism May Not Reflect Causal Beliefs

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Supplemental Note 1. Detailed Methods

1.1 Preregistration

The study was preregistered at AsPredicted (<https://aspredicted.org/jx7hx2.pdf>). All preregistered analyses are marked as such. Deviations and exploratory analyses are explicitly identified.

1.2 Data Availability

Supporting data, code, and materials are available at:

https://osf.io/39gp4/overview?view_only=b9658231f5ff4a33b347ee48cf88fe48

1.3 Recruitment and Sample

The study used a between-subjects design; each participant was randomly assigned to one phrasing condition and provided a single response to each outcome measure. Participants (N = 2,000) were recruited from CloudResearch's Connect platform on October 24, 2025, 15 days after the original KFF poll results were reported and 29 days after the poll was conducted. Due to a technical error, only 1,994 participants completed the survey on October 24, 2025. An additional 6 participants were recruited on October 27, 2025; excluding these later respondents does not change the results.

Recruitment text shown to Connect participants:

- “This 1–2 minute voluntary research survey by Carnegie Mellon University has three multiple-choice questions, and includes the possibility of a 10¢ bonus that can be achieved by paying attention throughout.”

1.4 Sensitivity Analysis

Because no *a priori* power analysis was conducted during study design, we performed a sensitivity analysis to determine the smallest differences between experimental conditions that

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the study could reliably detect. After exclusions, the preregistered study yielded $N = 1,957$ respondents, corresponding to approximately 650 participants per causal-language condition. Restricting the sample to respondents without a college education, in which we find no effect of phrasing, yields $N = 915$, or approximately 305 participants per condition. For a binary outcome such as endorsement of the Tylenol–autism relationship, the minimum detectable difference in proportions between two groups can be approximated using the standard normal approximation:

$$\text{Minimum detectable difference} = (z_{1-\alpha/2} + z_{\text{power}}) \times \sqrt{2p(1-p)/n}$$

where p is the baseline endorsement probability and n is the sample size per condition.

Assuming a two-sided significance threshold of $\alpha = .05$ and power of 0.80, this calculation yields a minimum detectable difference for the full sample of approximately 6-7 percentage points between conditions for baseline endorsement rates between .20 and .25, which corresponds to the range observed in the present data. These differences correspond to odds ratios of approximately 1.35-1.45, depending on the baseline probability. For the less-educated portion of the sample, the same calculation yields a minimum detectable difference of approximately 9-10 percentage points, corresponding to odds ratios of roughly 1.50-1.65. Framing effects reported in prior studies are typically larger than this detectable range. For example, Kühberger's (1998) meta-analysis of risky-choice framing experiments reports an average effect of approximately $r \approx .14$ (roughly $d \approx 0.28$ -0.30), with many individual studies producing shifts in binary choices on the order of 10-30 percentage points. Framing effects observed in medical risk communication contexts (e.g., Gong et al., 2013; Malenka et al., 1993) are often of similar or larger magnitude. Thus, the present study was powered to detect differences substantially smaller than those commonly reported in the framing literature.

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1.5 Consent and Compensation

Participants provided informed consent. They received 25¢ for participation and an additional 10¢ attention bonus. Consent text:

- This is a research project conducted by Prof. Julie Downs at Carnegie Mellon University (STUDY2025_00000372), jsd-1215@andrew.cmu.edu.
- This 1-2 minute voluntary survey asks polling questions on a news topic. You will receive 25¢ plus a possible 10¢ bonus, which you can maximize by paying close attention.
- You must be 18+ and in the USA to participate. Your data will be stored securely until your Connect ID can be removed, but there is always a risk of a data breach. Once your ID has been removed, your responses to this survey and demographics from Connect may be shared for further research. You may skip questions if you do not feel comfortable answering. If you have questions or concerns about your rights as a research participant, you can contact the Carnegie Mellon IRB at (412) 268-4721, irb-review@andrew.cmu.
- If you want to participate in this study, continue to start the survey.
- Your Connect ID is [ID piped in]

1.5 Attention Check

The attention-check item displayed the options in this exact order: Opioids, Tylenol, Vaccines, Autism. Respondents who chose to answer were required to select at least two options; however they could skip the question entirely. Breakdown of failed attention checks:

- Tylenol + Vaccines: 30
- Vaccines + Autism: 5

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- Opioids + Vaccines: 2
- Tylenol + Autism + Vaccines: 2
- Opioids + Tylenol: 4

1.6 Survey Platform

The survey was programmed and administered using Qualtrics (Qualtrics, Provo, UT, USA).

1.7 Randomization

Participants were randomly assigned to one of three causal language conditions using Qualtrics randomization tools: Increases risk, Causes, Mere link. The order of response options and question blocks was identical across conditions; only the randomly assigned causal-language phrasing differed. Randomization was successful across political party and education (see Table S2).

1.8 Exclusion Criteria

- Respondents flagged by Qualtrics as likely bots (reCAPTCHA < 0.70) were filtered before consent.
- Respondents who did not complete the survey within one hour after starting (n = 9) were withdrawn from the study and their surveys were automatically closed.
- Participants who failed the attention-check (n = 43, 2.2%) were excluded from preregistered analyses.
- No outlier exclusions were applied. (Because all outcome variables were binary or ordinal four-point scales, statistical outliers were not possible in the conventional sense used for continuous measures.)
- Analyses including all participants appear in robustness checks.

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1.9 Demographics

Political party and education were obtained from CloudResearch’s profile data. Political party categories presented to participants: Democrat, Republican, Independent, Something else, Prefer not to say. (As preregistered, the last two categories were combined into “Other.”) Education categories participants could choose from: No formal education, Less than a high school diploma, High school graduate / GED, Some college but no degree, Associate degree (AA, AS), Bachelor’s degree (BA, AB, BS), Master’s degree (MA, MS, MEng, MEd, MSW, MBA), Professional degree (MD, DDS, DVM, LLB, JD), Doctorate degree (PhD, EdD). These options were treated as an ordinal variable in the order listed here, with the last two categories combined. Missing-data note: For education analyses, participants with no response (N = 7; 0.4%) were omitted.

Supplemental Note 2. Descriptive Statistics

Table S1 contains descriptive counts and proportions for all categorical variables. No continuous variables were collected; therefore, means and standard deviations are not applicable. In addition to the variables of interest to this manuscript, we report the distribution of responses across all demographic variables provided by the Connect platform for comparison to the KFF sample in Table S1.

Supplemental Note 3. Primary Model Supplements

Full logistic regression models for awareness and endorsement are provided in Tables S3–S7. These expand upon the models summarized in the main manuscript and include:

- Coefficients (B)
- Standard errors (SE)
- Odds ratios (OR) with 95% Confidence Intervals (CIs)

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- Predicted probabilities with 95% CIs where possible
- Model structures (phrasing-only, + political party, + education, interactions)

These tables provide complete model specifications, including reference categories, coding schemes, and full parameter estimates not reported in the main manuscript.

Supplemental Note 4: Additional Results

4.1 Randomization Checks

We assessed whether random assignment to the three phrasing conditions produced equivalent groups on the two preregistered demographic variables: political party and education (both ordinal and the median split at college degree), using an alpha level of 0.20 to determine success of randomization (see Table S2). Only the binary college-degree variable showed a slight imbalance, with participants holding a college degree being slightly overrepresented in the *causes* condition and slightly underrepresented in the *increases-risk* condition, $\chi^2(2) = 3.80$, $p = .150$.

4.2 Awareness

In addition to the results reported in the main text, we find the following political party and educational differences:

- Participants identifying as “Other” showed substantially lower awareness of the claim (Table S5).
- Republicans showed marginally lower awareness than Democrats (Table S5).
- Participants with a college degree were more likely to be aware (91.7%) than those without (87.8%, Table S3).

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No significant interactions emerged between causal-language condition and political party or education. Full model coefficients are reported in Tables S3 and S5.

4.3 Robustness of primary findings to sample inclusion criteria

Results were robust to alternative sample definitions. Excluding the six participants who completed the survey on October 27 did not substantively change the estimated effect of the causes wording on endorsement ($B = -0.266$, $p = .052$). Including all participants regardless of attention-check performance yielded a slightly larger effect ($B = -0.284$, $p = .035$). Robustness checks did not materially change estimates for the mere-link condition across any specification (all p values remained $> .40$). No robustness checks altered the direction of any primary effects.

4.4 Comparison to KFF poll

Restricting the sample to those assigned to the KFF *increases-risk* wording, we find slightly lower endorsement rates than KFF reported for all political groups. Percentages reported in comparisons with the KFF poll reflect observed sample proportions within each political-party category and are not model-adjusted predicted probabilities.

- Democrats: 6.9% (KFF: 13%); $Z = -2.84$, $p = .005$
- Independents: 25.8% (KFF: 32%); $Z = -1.86$, $p = .063$
- Republicans: 46.7% (KFF: 57%); $Z = -2.43$, $p = .015$
- Other: 21.1% (no poll comparison available)

4.5 Coding of education variable

Treating education as an ordered multi-category variable yields an overall negative association with endorsement (higher education $\rightarrow$ lower endorsement; Table S4). An interaction emerges between ordinal education and the causes phrasing, similar to the interaction reported in the manuscript, showing a stronger separation between higher- and lower-education respondents

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when the item uses explicitly causal wording (Table S4). These robustness checks indicate that the education effect does not depend on the binary median split and is stable across codings.

Collectively, these supplemental analyses indicate that the patterns reported in the main manuscript are robust to alternative exclusion rules and alternative codings of education. No corrections for multiple comparisons were applied to supplemental analyses; results are reported for transparency rather than inferential reinterpretation.

Supplemental Note 5. Reproducibility and Codebook

5.1 Software

All analyses were conducted in IBM SPSS Statistics Version 29 (IBM Corp., Armonk, NY, USA). Full output is available from the SPSS syntax and on OSF.

5.2 Variable Coding Summary

- Endorsement (raw): 4 = definitely true, 3 = probably true, 2 = probably false, 1 = definitely false
- Endorsement (collapsed): 1 = true (definitely/probably), 0 = false (definitely/probably)
- Political party: Democrat, Independent, Republican, Other/NA
- Education (ordinal): No formal education (1), Less than a high school diploma (2), High school graduate / GED (3), Some college but no degree (4), Associate degree (AA, AS) (5), Bachelor's degree (BA, AB, BS) (6), Master's degree (MA, MS, MEng, MEd, MSW, MBA) (7), Professional degree (MD, DDS, DVM, LLB, JD) (8), Doctorate degree (PhD, EdD) (8).
- Education (binary): 0 = no college degree; 1 = college degree or higher
- Cause_Dummy: 1 = causes phrasing used; 0 = any other condition

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- Link_Dummy: 1 = mere-link phrasing used; 0 = any other condition

Supplemental Tables

All robustness models and full SPSS output are available at OSF. The following tables are presented below, and can be recreated from the SPSS syntax as noted in the syntax file on OSF.

S1: Descriptive statistics

S2: Randomization

S3: Awareness of the Tylenol–autism relationship from Phrasing and College Degree

S4: Endorsement of the Tylenol–autism relationship from Phrasing and College Degree

S5: Awareness of the Tylenol–autism relationship from Phrasing and Party

S6: Endorsement of the Tylenol–autism relationship from Phrasing and Party

S7: Strength of endorsement of the Tylenol–autism relationship from Phrasing and Party

Table S1. Descriptive statistics for all categorical study variables

Note. All study variables were categorical; therefore, descriptive statistics are presented as counts (n) and percentages (%). Percentages are valid percentages unless otherwise indicated.

Awareness of the Tylenol–autism claim

Response	n	%
Not aware	198	10.1%
Aware	1759	89.9%
Total	1957	100%

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Endorsement (4-category response)

Response category	n	%
Definitely true	32	1.6%
Probably true	374	19.1%
Probably false	690	35.3%
Definitely false	861	44.0%
Total	1957	100%

Endorsement (binary, preregistered)

Response	n	%
False (0)	1551	79.3%
True (1)	406	20.7%
Total	1957	100%

Political party affiliation

Party	n	%
Democrat	800	40.9%
Independent	596	30.5%
Republican	377	19.3%

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Other	184	9.4%
Total	1957	100%

Educational attainment (binary)

Education	n	%
No college degree (0)	915	46.9%
College degree (1)	1035	53.1%
Total (valid)	1950	100%
Missing	7	—

Educational attainment (full ordinal categories)

Category	n	%
1. No formal education	1	0.1%
2. Less than high school	13	0.7%
3. High school / GED	258	13.2%
4. Some college, no degree	444	22.8%
5. Associate degree	199	10.2%
6. Bachelor's degree	718	36.8%
7. Master's degree	258	13.2%

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8. Professional/Doctorate degree	59	3.0%
Total (valid)	1950	100%
Missing	7	—

Causal-language condition assignment

Condition	n	%
Increases risk	632	32.3%
Causes	692	35.4%
Mere link	633	32.3%
Total	1957	100%

Other Demographics: Age group (range: 18-82, M=40.3, SD=12.8)

Other Demographics: Gender

Gender	n	%
Female	1068	54.6%
Male	876	44.8%
Intersex	2	0.1%
Prefer not to say	11	0.6%
Total	1957	100%

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Other Demographics: Employment Status

Employment Status	n	%
Business Owner	118	6%
Full-time	964	49.3%
Not in paid work (e.g., homemaker, disabled)	145	7.4%
Part-time	293	15%
Prefer not to say	28	1.4%
Retired	90	4.6%
Student	86	4.4%
Unemployed	168	8.6%
Missing	65	3.3%
Total	1892	100%

Other Demographics: Occupation

Occupation / Field	n	%
Agriculture, Food and Natural Resources	18	0.9%
Architecture and Construction	28	1.4%
Arts	86	4.4%

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Business Management & Administration	94	4.8%
Education & Training	135	6.9%
Finance	90	4.6%
Government & Public Administration	50	2.6%
Hospitality & Tourism	65	3.3%
Information Technology	208	10.6%
Legal	19	1%
Manufacturing	73	3.7%
Marketing and Sales	69	3.5%
Medicine	100	5.1%
Military	2	0.1%
Other	368	18.8%
Policing	4	0.2%
Retail	122	6.2%
Retired	83	4.2%
Science, Technology, Engineering & Mathematics	95	4.9%
Social Sciences	35	1.8%
Transportation, Distribution & Logistics	46	2.4%

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I'd Rather Not Say	90	4.6%
Missing	77	3.9%
Total	1957	100%

Other Demographics: Marital Status

Marital Status	n	%
Single	632	32.3%
Married	650	33.2%
In a civil union / partnership	47	2.4%
In a relationship	331	16.9%
Widowed	26	1.3%
Separated	22	1.1%
Divorced	109	5.6%
I'd Rather Not Say	16	0.8%
Missing	124	6.3%
Total	1957	100%

Other Demographics: Race

Race	n	%
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American Indian or Alaska Native	23	1.2%
Asian Indian	16	0.8%
Black or African American	212	10.8%
Chinese	61	3.1%
Filipino	22	1.1%
Guamanian	1	0.1%
Japanese	12	0.6%
Korean	16	0.8%
Vietnamese	15	0.8%
White	1467	75.0%
An ethnicity not listed here	71	3.6%
Other	24	1.2%
Prefer Not To Say	14	0.7%
Missing	3	0.2%
Total	1957	100%

Other Demographics: Ethnicity

Ethnicity	n	%
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Yes, Mexican, Mexican American, Chicano	106	5.4%
Yes, Puerto Rican	28	1.4%
Yes, Cuban	14	0.7%
Yes, another Hispanic, Latino, or Spanish origin	72	3.7%
No	1724	88.1%
Prefer Not To Say	13	0.7%
Total	1957	100%

Other Demographics: Household Income

Household Income	n	%
\$10,000-\$19,999	100	5.1%
\$100,000-\$124,999	193	9.9%
\$125,000-\$149,999	121	6.2%
\$150,000-\$174,999	61	3.1%
\$175,000-\$199,999	40	2%
\$20,000-\$29,999	145	7.4%
\$200,000-\$224,999	41	2.1%
\$225,000-\$249,999	18	0.9%

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\$250,000 or more	55	2.8%
\$30,000-\$39,999	182	9.3%
\$40,000-\$49,999	165	8.4%
\$50,000-\$59,999	151	7.7%
\$60,000-\$69,999	129	6.6%
\$70,000-\$79,999	130	6.6%
\$80,000-\$89,999	98	5%
\$90,000-\$99,999	103	5.3%
Less than \$10,000	89	4.5%
Prefer not to say	70	3.6%
Missing	66	3.4%
Total	1957	100%

Table S2. Randomization Table

Variable	Test	χ^2 (df)	p	N
Political party (4 categories)	Pearson χ^2	6.57 (6)	.363	1,957
Education (ordinal, 8 levels)	Pearson χ^2	13.66 (14)	.475	1,950

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Education (college degree vs. no college degree)	Pearson χ^2	3.80 (2)	.150	1,950
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Note. Randomization checks were conducted on the preregistered analysis sample (participants who passed the attention check). No differences across causal-language conditions reached statistical significance. Participants with college degrees were slightly overrepresented in the causes condition and underrepresented in the increases-risk condition, but this imbalance was not statistically significant.

Table S3. Logistic regression predicting Awareness of the Tylenol–autism relationship from Causal Phrasing (Model 1), Education (Model 2), and their interaction (Model 3).

*Note. Logistic regression models predicting awareness (Aware_Yes; 1 = aware, 0 = not aware) among participants who passed the attention check. Reference category for phrasing is **increases risk**. Education is coded as **college degree** (1) vs **no college degree** (0). Odds ratios (ORs) are shown with 95% confidence intervals (CIs). CIs are computed from $B \pm 1.96 \times SE$.*

Predictor	Model 1			Model 2			Model 3		
	B (SE)	OR [95% CI]	p	B (SE)	OR [95% CI]	p	B (SE)	OR [95% CI]	p
Causes (vs increases risk)	0.136 (0.180)	1.15 [0.81, 1.63]	.451	0.121 (0.180)	1.13 [0.79, 1.61]	.501	0.163 (0.238)	1.18 [0.74, 1.88]	.493
Link (vs increases risk)	0.175 (0.186)	1.19 [0.83, 1.72]	.345	0.153 (0.186)	1.17 [0.81, 1.68]	.411	0.247 (0.251)	1.28 [0.78, 2.09]	.327
College degree (vs none)	—	—	—	0.426 (0.151)	1.53 [1.14, 2.06]	.005	0.526 (0.260)	1.69 [1.02, 2.82]	.043
Causes × College degree	—	—	—	—	—	—	-0.103 (0.366)	0.90 [0.44, 1.85]	.779

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Link × College degree	—	—	—	—	—	—	-0.210 (0.376)	0.81 [0.39, 1.69]	.577
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Model	N (included)	-2 Log Likelihood	Nagelkerke R ²	Omnibus χ^2 (df), p
Model 1: phrasing	1,950	1279.957	.001	0.999 (2), .607
Model 2: + college degree	1,950	1271.972	.010	8.984 (3), .030
Model 3: + interactions	1,950	1271.661	.010	9.295 (5), .098

Missing data: 7 cases (0.4%) were excluded due to user-missing values on education (as defined in the dataset).

Table S4. Logistic regression predicting Endorsement of the Tylenol–autism relationship from Causal Phrasing (Model 1), Education (Model 2), and their interaction (Model 3).

*Note. Logistic regression models predict endorsement of the Tylenol–autism relationship (Endorse_Binary; 1 = definitely/probably true, 0 = probably/definitely false) among participants who passed the attention check. Reference category for causal phrasing is **increases risk**. Robust standard errors are reported. Odds ratios (ORs) are shown with 95% confidence intervals (CIs), computed from $B \pm 1.96 \times SE$.*

Panel A. Primary education specification (college degree vs. no college degree)

Education (CollegeDegree): 1 = bachelor's degree or higher; 0 = no college degree. N included = 1,950 (7 cases excluded due to user-missing education).

Predictor	Model 1			Model 2			Model 3		
	B (SE)	OR [95% CI]	p	B (SE)	OR [95% CI]	p	B (SE)	OR [95% CI]	p

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Causes (vs increases risk)	-0.257 (0.137)	0.77 [0.59, 1.01]	.061	-0.244 (0.138)	0.78 [0.60, 1.03]	.076	0.027 (0.186)	1.03 [0.71, 1.48]	.885
Link (vs increases risk)	-0.032 (0.136)	0.97 [0.74, 1.26]	.815	-0.010 (0.137)	0.99 [0.76, 1.29]	.944	0.056 (0.191)	1.06 [0.73, 1.54]	.771
College degree (vs none)	—	—	—	-0.411 (0.113)	0.66 [0.53, 0.83]	<.001	-0.169 (0.192)	0.85 [0.58, 1.23]	.378
Causes × College degree	—	—	—	—	—	—	-0.602 (0.279)	0.55 [0.32, 0.95]	.031
Link × College degree	—	—	—	—	—	—	-0.150 (0.272)	0.86 [0.51, 1.47]	.581

Model	N	-2 Log Likelihood	Nagelkerke R ²	Omnibus χ^2 (df), p
Model 1: phrasing only	1,950	1988.245	.003	4.199 (2), .123
Model 2: + college degree	1,950	1974.810	.014	17.634 (3), <.001
Model 3: + interactions	1,950	1969.766	.018	22.678 (5), <.001

Panel B. Predicted probabilities and 95% confidence intervals

Predicted probabilities are derived from logistic regression models; confidence intervals are on the probability scale, calculated with SPSS code available in OSF.

	No College Degree	College Degree	Full Sample
Increases Risk	23.9% [19.5%, 28.9%]	21.0% [16.8%, 25.8%]	22.4% [19.3%, 25.8%]
Causes	24.4% [20.0%, 29.4%]	13.0% [9.9%, 16.8%]	18.0% [15.2%, 21.1%]
Link	24.9% [20.2%, 30.3%]	19.4% [15.6%, 23.9%]	22.0% [19.0%, 25.5%]

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Panel C. Robustness specification (ordinal education)

Education_Ordinal is an ordinal coding of education level (higher values = higher educational attainment). N included = 1,950 (7 cases excluded due to user-missing education).

Predictor	Model 1			Model 2			Model 3		
	B (SE)	OR [95 % CI]	p	B (SE)	OR [95 % CI]	p	B (SE)	OR [95 % CI]	p
Causes (vs increases risk)	-0.257 (0.137)	0.77 [0.59 , 1.01]	.061	-0.249 (0.138)	0.78 [0.59 , 1.02]	.071	0.709 (0.508)	2.03 [0.75 , 5.47]	.163
Link (vs increases risk)	-0.032 (0.136)	0.97 [0.74 , 1.26]	.815	-0.011 (0.137)	0.99 [0.76 , 1.29]	.937	0.519 (0.507)	1.68 [0.62 , 4.57]	.307
Education_Ordinal	—	—	—	-0.180 (0.040)	0.84 [0.77 , 0.90]	<.001	-0.084 (0.068)	0.92 [0.81 , 1.05]	.215
Causes × Education_Ordinal	—	—	—	—	—	—	-0.193 (0.098)	0.82 [0.68 , 1.00]	.050
Link × Education_Ordinal	—	—	—	—	—	—	-0.106 (0.097)	0.90 [0.74 , 1.09]	.274

Model	N	-2 Log Likelihood	Nagelkerke R ²	Omnibus χ^2 (df), p
Model 1: phrasing only	1,950	1988.245	.003	4.199 (2), .123
Model 2: + Education_Ordinal	1,950	1968.031	.019	24.413 (3), <.001

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Model 3: + interactions	1,950	1964.118	.023	28.326 (5), <.001
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Table S5. Logistic regression predicting Awareness of the Tylenol–autism relationship from Causal Phrasing (Model 1), Political Party Affiliation (Model 2), and their interaction**(Model 3).**

Note. Logistic regression models predict awareness of the Tylenol–autism claim (Aware_Yes; 1 = aware, 0 = not aware) among participants who passed the attention check (N = 1,957).

*Reference category for causal phrasing is **increases risk**. Reference category for political party is **Democrat**. Odds ratios (ORs) are shown with 95% confidence intervals (CIs), computed from $B \pm 1.96 \times SE$.*

Predictor	Model 1			Model 2			Model 3		
	B (SE)	OR [95% CI]	p	B (SE)	OR [95% CI]	p	B (SE)	OR [95% CI]	p
Causes (vs increases risk)	0.134 (0.180)	1.14 [0.80, 1.63]	.458	0.144 (0.181)	1.15 [0.81, 1.64]	.426	0.012 (0.273)	1.01 [0.59, 1.74]	.964
Link (vs increases risk)	0.174 (0.186)	1.19 [0.83, 1.72]	.350	0.187 (0.187)	1.21 [0.84, 1.75]	.317	0.204 (0.292)	1.23 [0.69, 2.18]	.484
Independent (vs Democrat)	—	—	—	0.161 (0.189)	1.18 [0.82, 1.70]	.395	-0.046 (0.309)	0.96 [0.52, 1.76]	.882
Republican (vs Democrat)	—	—	—	-0.345 (0.193)	0.71 [0.49, 1.02]	.073	-0.272 (0.327)	0.76 [0.40, 1.43]	.406
Other party (vs Democrat)	—	—	—	-1.019 (0.291)	0.36 [0.20, 0.63]	<.001	-1.110 (0.553)	0.33 [0.11, 0.98]	.045
Causes × Independent	—	—	—	—	—	—	0.830 (0.485)	2.29 [0.89, 5.92]	.087
Causes × Republican	—	—	—	—	—	—	-0.225 (0.455)	0.80 [0.33, 1.93]	.621

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Causes × Other party	—	—	—	—	—	—	0.068 (0.710)	1.07 [0.27, 4.25]	.924
Independent × Link	—	—	—	—	—	—	-0.110 (0.450)	0.90 [0.37, 2.16]	.807
Republican × Link	—	—	—	—	—	—	-0.006 (0.488)	0.99 [0.38, 2.61]	.990
Other party × Link	—	—	—	—	—	—	0.224 (0.771)	1.25 [0.27, 5.74]	.772

Model	N	-2 Log Likelihood	Nagelkerke R²	Omnibus χ^2 (df), p
Model 1: phrasing only	1,957	1281.476	.001	0.98 (2), .614
Model 2: + political party	1,957	1265.238	.018	17.21 (5), .004
Model 3: + interactions	1,957	1258.732	.025	23.72 (11), .014

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Table S6. Logistic regression predicting Endorsement of the Tylenol–autism relationship from Causal Phrasing (Model 1), Political Party Affiliation (Model 2), and their interaction (Model 3).

*Note. Logistic regression models predict endorsement of the Tylenol–autism relationship (Endorse_Binary; 1 = definitely/probably true, 0 = probably/definitely false) among participants who passed the attention check (N = 1,957). Reference category for causal phrasing is **increases risk**. Reference category for political party is **Democrat**. Robust standard errors are reported. Odds ratios (ORs) are shown with 95% confidence intervals (CIs), computed from $B \pm 1.96 \times SE$.*

Predictor	Model 1			Model 2			Model 3		
	B (SE)	OR [95% CI]	p	B (SE)	OR [95% CI]	p	B (SE)	OR [95% CI]	p
Causes (vs increases risk)	-0.264 (0.137)	0.77 [0.59, 1.01]	.054	-0.210 (0.146)	0.81 [0.61, 1.08]	.152	-0.254 (0.313)	0.78 [0.42, 1.44]	.418
Link (vs increases risk)	-0.039 (0.136)	0.96 [0.74, 1.25]	.775	-0.002 (0.146)	1.00 [0.75, 1.34]	.989	0.258 (0.291)	1.29 [0.73, 2.28]	.375
Independent (vs Democrat)	—	—	—	1.177 (0.156)	3.25 [2.39, 4.41]	<.001	1.367 (0.273)	3.93 [2.30, 6.70]	<.001
Republican (vs Democrat)	—	—	—	2.287 (0.159)	9.84 [7.20, 13.45]	<.001	2.292 (0.278)	9.89 [5.73, 17.09]	<.001
Other party (vs Democrat)	—	—	—	1.361 (0.280)	3.90 [2.25, 6.76]	<.001	1.578 (0.534)	4.85 [1.70, 13.82]	.003
Causes × Independent	—	—	—	—	—	—	0.000 (0.392)	1.00 [0.46, 2.17]	.999
Causes × Republican	—	—	—	—	—	—	0.202 (0.402)	1.22 [0.55, 2.69]	.616

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Causes × Other party	—	—	—	—	—	—	-0.439 (0.734)	0.65 [0.15, 2.74]	.550
Independent × Link	—	—	—	—	—	—	-0.554 (0.379)	0.57 [0.27, 1.19]	.144
Republican × Link	—	—	—	—	—	—	-0.173 (0.383)	0.84 [0.40, 1.77]	.651
Other party × Link	—	—	—	—	—	—	-0.158 (0.697)	0.85 [0.22, 3.35]	.821

Model	N	-2 Log Likelihood	Nagelkerke R²	Omnibus χ^2 (df), p
Model 1: phrasing only	1,957	1994.041	.003	4.34 (2), .114
Model 2: + political party	1,957	1758.942	.180	235.10 (5), <.001
Model 3: + interactions	1,957	1754.530	.183	243.85 (11), <.001

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Table S7. Ordinal logistic regression predicting strength of endorsement of the Tylenol–autism relationship from Causal Phrasing (Model 1), Political Party Affiliation (Model 2), and their interaction (Model 3).

Note. Ordinal logistic regression (proportional odds model) predicting endorsement of the Tylenol–autism relationship across four response categories. Reference category for causal phrasing is increases risk; reference category for political party is Democrat. Coefficients (B), standard errors (SE), and odds ratios (ORs) are shown. ORs represent the odds of being in a higher endorsement category. Confidence intervals (CIs) are based on Wald estimates.

Predictor	Model 1			Model 2			Model 3		
	B (SE)	OR [95% CI]	p	B (SE)	OR [95% CI]	p	B (SE)	OR [95% CI]	p
Causes (vs increases risk)	-.251 (.103)	0.78 [0.64, 0.95]	.015	-.191 (.107)	0.83 [0.67, 1.02]	.075	-.198 (.168)	0.82 [.59, 1.14]	.238
Link (vs increases risk)	.027 (.104)	1.03 [0.84, 1.26]	.793	.064 (.108)	1.07 [0.86, 1.32]	.555	.140 (.168)	1.15 [0.83, 1.60]	.403
Independent (vs Democrat)				1.193 (.104)	3.30 [2.69, 4.04]	<.001	1.204 (.181)	3.33 [2.34, 4.75]	<.001
Republican (vs Democrat)				2.291 (.125)	9.89 [7.73, 12.64]	<.001	2.313 (.206)	10.10 [6.75, 15.12]	<.001
Other party (vs Democrat)				1.317 (.217)	3.73 [2.44, 5.71]	<.001	1.732 (.432)	5.65 [2.43, 13.18]	<.001
Causes × Independent							.069 (.249)	1.07 [0.66, 1.75]	.783
Causes × Republican							.022 (.288)	1.02 [0.58, 1.80]	.940

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Causes × Other party							-.500 (.549)	0.61 [0.21, 1.78]	.362
Independent × Link							-.107 (.253)	0.90 [0.55, 1.48]	.673
Republican × Link							-.082 (.287)	0.92 [0.53, 1.62]	.776
Other party × Link							-.624 (.567)	0.54 [0.18, 1.63]	.272

Model	N	-2 Log Likelihood	Nagelkerke R²	Omnibus χ^2 (df), p
Model 1: phrasing only	1,957	53.41	.005	9.005 (2), .011
Model 2: + political party	1,957	167.01	.206	398.118 (5), <.001
Model 3: + interactions	1,957	165.20	.207	399.94 (11), <.001