Supplemental Material

This Supplemental material supports the manuscript "Advice Taking on Social Media: People Monitor Advisor Trustworthiness but Do Not Sufficiently Control for It."

Supplement 1: Exploratory Comment Analysis

We explored the content of comments that participants provided below the advice posts. We identified eleven different topics. *Table S1* provides an overview of these topics ordered from most frequent to least frequent and provides a few examples for each. We also explored whether comments qualitatively differ between sources. However, we could not identify any qualitative systematic differences across the items. We provide one illustrative item example in *Table S2*. The full individual data set with comments for all items can be found on the OSF.

Table S1

Comment Categorization (Experiment 1)

Topic Category	Frequency	Example (original German)	English Translation
personal information, personal reference to the advice, opinions	161	"ich versuche es, liebe süßes sehr", „ich liebe würfelzucker", „Ich könnte ohne Sport nicht leben", „Mit Kindern hat man das schnell erreicht!", „ich hasse sonnencreme stinkt so", „gut dass ich keine cola mag", „oh so viel geduld hab ich nicht", „Das ist mir zu kalt", „Für mich macht das auch immer einen großen Unterschied!", „mach ich jeden tag!"	"I'll give it a try, I really love sweets", "I love sugar cubes", "I couldn't live without exercise", "With kids, you reach that point quickly!", "I hate sunscreen, it smells so bad", "Good thing I don't like Coke", "I don't have that much patience", "That's too cold for me", "It always makes a big difference to me!", "I do that every day!"
clarification questions	149	"Hast du Rezeptideen?", "Könntest du erklären, was passiert wenn man auf Dauer mehr Salz aufnimmt? Und ich denke mal, auch zu wenig Salz kann zu Problemen führen, richtig?", „was sind die Auswirkungen?", „Wie ist es eigentlich, wenn man unter niedrigem Blutdruck leidet? Gilt	"Do you have any recipe ideas?", "Could you explain what happens if you consume more salt over the long term? And I'm guessing that too little salt can also lead to problems, right?", "What are the effects?", "What about if you have low blood pressure? Does this upper limit

Topic Category	Frequency	Example (original German)	English Translation
		diese Obergrenze dann auch oder benötigt der Körper dann mehr Salz?“, „aber was ist wenn ich vegan bin, gibt es da alternativen?“, „Ist es egal welche Nüsse ich esse? Welche würdest du empfehlen?“, „was meinst du mit natürlichem Zucker?“, „inwiefern?“, „Vielleicht brauchen manche auch mehr oder ?“, „Täglich?“, „Was ist den aerobe Bewegung, wäre gut zu wissen“	still apply, or does the body need more salt in that case?”, “But what if I’m vegan, are there any alternatives?”, “Does it matter which nuts I eat? Which ones would you recommend?”, “What do you mean by 'natural sugar'?”, “In what way?”, “Maybe some people need more, right?”, “Every day?”, “What exactly is aerobic exercise? It would be good to know.”
skepticism and criticism	105	“Wo ist die Quellenangabe ?”, “Bullshit. Ich hab kein Bock so fades Zeug zu fressen“, „Auch hier, ich finde das undifferenziert, nicht jeder Fisch ist gut und Überfischung ist sehr schlecht für die Umwelt. Vielleicht auch mal auf pflanzliche Alternativen eingehen?“, „Sind die Posts absichtlich so oberflächlich und ohne Quellenangabe?“, „Undifferenziert! Es braucht nicht jeder Hauttyp die gleiche nachcreme Routine!“, „kommt mir viel vor“, „Würde mal schätzen, dass das auf die Körpergröße/Größe der Hautoberfläche ankommt, sowie darauf, wie viel Kleidung man trägt?“, „60 ml sind viel. Sonnencreme steht auch im Verdacht, krebserregend zu sein?“, „variert doch aber je nach Größe, Gewicht und sportlicher aktivität“	“Where is the source?”, “Bullshit. I don’t feel like eating such bland stuff”, “Same here, I think this is too simplistic; not every fish is good, and overfishing is very bad for the environment. Maybe you could talk about plant-based alternatives sometime?”, “Are these posts intentionally so superficial and lacking sources?”, “That’s too general! Not every skin type needs the same sunscreen routine!”, “That seems like a lot to me”, “I’d guess it depends on your height and the size of your skin surface, as well as how much clothing you’re wearing?”, “60 ml is a lot. Is sunscreen also suspected of being carcinogenic?”, “But it varies depending on height, weight, and physical activity”
agreement and appreciation for the advice	92	„Ein strukturelles Problem! Danke für die Aufklärung“, „Impfen ist wichtig!“, “mega tipp, verändert sehr viel“, „Sehr wichtig und sehr hilfreich, besonders langfristig“, „wieder was neues gelernt“, „cool, wusste ich nicht“, „coole Info!“, „underrated“, „unbedingt!“, „muss ich mir merken“, „sehr wichtiges Thema!“, „das stimmt, vergessen viele“	“A structural problem! Thanks for the explanation”, “Vaccination is important!”, “Great tip, it makes a huge difference”, “Very important and very helpful, especially in the long run”, “Learned something new again”, “Cool, I didn't know that”, “Cool info!”, “Underrated”, “Definitely!”, “I'll have to remember that”, “A very important topic!”, “That's true, many people forget that.”

Topic Category	Frequency	Example (original German)	English Translation
additions	82	„Wenn man es schafft, gänzlich auf Fleisch (und andere tierische Produkte) zu verzichten, kann man zusätzlich den Tieren helfen, also Win-Win“, „Nachhaltigkeit auch bei Pflanzlichen Produkten wichtig“, „Für diejenigen, die nicht gerne Nüsse pur essen: Nussmus (wie z.B. Mandelmus) ist eine tolle Alternative!“, „Nicht nur flüssigkeitszufuhr sondern auch elektolyte und salze sind wichtig. Vielleicht eine Brühe oder iso getränke im zweifel dazu trinken oder?“, „es gibt auch blaulichtfilter für alle, die zu Handysüchtig sind :)“	“If you manage to completely cut out meat (and other animal products), you can also help the animals, it’s a win-win”, “Sustainability is important for plant-based products, too”, “For those who don’t like eating nuts on their own: nut butter (such as almond butter) is a great alternative!”, “It’s not just about staying hydrated, electrolytes and salts are important, too. Maybe additionally drink some broth or an isotonic drink, right?”, “There are also blue light filters for anyone who’s too addicted to their cell phones :)”
expressions of surprise	69	„so viel oh schreck”, „Oh...Das hätte ich nicht gedacht. Wir verwenden grundsätzlich zu wenig!“, „Wow, so viel?! Hätte tatsächlich weniger geschätzt“, „Beeindruckend, dass die FSME-Impfung doch solange anhaltend ist.“	“So much, oh my gosh,” “Oh... I wouldn’t have thought so. We definitely don’t use enough!” “Wow, that much?! I actually would have guessed less,” “It’s impressive that the TBE vaccine lasts so long after all.”
Skepticism regarding the feasibility of implementation	41	„kann man heutzutage fast gar nicht mehr einhalten, da überall Salz drin ist“, „Leider schwerer getan als mir lieb ist! Wo alle zucker drinnen versteckt ist ist verblüffend“, „schwierig abzumessen im Essen wieviel Teelöffel drin sind“, „Als ob alle so privilegiert leben, dass sie ihre Klimaanlage abends auch die perfekte Temperatur stellen können…“, „Manchmal hat man aber keine Wahl, z.B. wenn man am Bildschirm arbeiten muss...“	“It's almost impossible to stick to that these days, since salt is in everything”, “Unfortunately, it's harder than I'd like! It's surprising how much sugar is hidden in everything”, “It's hard to gauge how many teaspoons are in a meal”, “As if everyone were so privileged that they could set their air conditioning to the perfect temperature in the evening…”, “But sometimes you just don’t have a choice, like when you have to work at a computer screen...”
Agreement with additional information and comments	35	„Und jeden Tag Fleisch oder Wurst essen ist unnötig! Heutzutage gibt es genügend Alternativen, die mittlerweile sogar den Geldbeutel schonen.“, „Macht außerdem auch richtig Spaß, wenn man den richtigen Sport für	“And eating meat or sausage every day is unnecessary! These days, there are plenty of alternatives that are even easier on the wallet”, “It’s also really fun once you’ve found the right sport for you”, “but your mental health

Topic Category	Frequency	Example (original German)	English Translation
		sich gefunden hat“, „aber auch die mentale Gesundheit profitiert davon. und die generelle Gesundheit“, „Das ist ein guter Rat. Wenn man mit den Nierenärzten spricht, ist aber alles zwischen 0.75 und 3000 ml ok“, „deshalb schläft man auch im sommer so schlecht...“	benefits from it, too. And your overall health”, “That’s good advice. But if you talk to nephrologists, anything between 0.75 and 3,000 ml is okay”, “That’s why you sleep so poorly in the summer, too...”
acceptance of advice and neutrality	18	„ok”, „alles klar”, „Das weiß doch wirklich jeder…“	“ok,” “All right,” “Everyone knows that, after all…”
meaningless comments	15	„Sport ist Mord und wer sich nicht bewegt lebt nicht“, „epic bro“	“Exercise is murder, and if you don’t move, you’re not really living”, “epic bro”
comments about the pictures	7	„cooles bild”, „zu dunkles bild“	“Cool picture”, “Picture too dark”

Table S2

Example Advice Item with All Provided Comments Separated by the Associated Source

Eat no more than 5 grams of salt per day: A higher salt intake is harmful to your health. („Iss täglich maximal 5 Gramm Salz: Eine höhere Salz-Zufuhr ist schädlich für die Gesundheit.“)	
Trustworthy Source	**Untrustworthy Source**
Could you explain what happens if you consume more salt over the long term? And I suppose not getting enough salt can also lead to problems, right?” („Könntest du erklären, was passiert, wenn man auf Dauer mehr Salz aufnimmt? Und ich denke mal, auch zu wenig Salz kann zu Problemen führen, richtig?“)	What are the consequences? („was sind die Auswirkungen?“)
But salt tastes so good („aber Salz schmeckt so gut“)	Bullshit. I don't feel like eating such bland stuff. („Bullshit. Ich hab kein Bock so fades Zeug zu fressen“)
I find it really hard to estimate that... How am I supposed to know if I've already had more than 5 grams of salt? („Ich finde das total schwer, das so einzuschätzen... Woher weiß ich denn, dass ich jetzt schon mehr als 5 Gramm Salz zu mir genommen habe?“)	Where is the source citation? („Wo ist die Quellenangabe?“)
It's almost impossible to stick to that these days, since salt is in everything („kann man heutzutage fast gar nicht mehr einhalten, da überall Salz drin ist“)	But that really isn't very much („Das ist aber wirklich sehr wenig“)
What is it actually like if you have low blood pressure? Does this upper limit still apply, or does the body need more salt in that case? („Wie ist es eigentlich, wenn man unter niedrigem Blutdruck leidet? Gilt diese Obergrenze dann auch oder benötigt der Körper dann mehr Salz?“)	Sometimes, however, it's necessary if you consume enough water, for example, if you're experiencing dizziness, according to my cardiologist „manchmal aber notwendig mit genug Wasser z.b. bei Schwindelproblemen, laut meinem Kardiologen.“
Unfortunately, a lot of things taste much better with salt. („vieles schmeckt mit salz leider viel besser“)	
Could I get cancer then? („kann ich dann Krebs bekommen?“)	

Note. The comments were provided in German (original German wordings displayed in brackets).

Supplement 2: MPT Covariate Analysis for Memory Estimates

Table S3

Covariate Estimates (Probability Scale) (Experiment 1)

parameter	covariate	Mean	SD	2.5%	50%	97.5%	Time-series SE	n.eff	Rhat	R_95%
D	sum of likes	0.013	0.084	-0.145	0.012	0.181	0.003	714	1.005	1.017
d_T	sum of likes (T)	0.164	0.123	-0.060	0.160	0.413	0.004	823	1.037	1.119
d_U	sum of likes (U)	0.007	0.194	-0.354	0.010	0.406	0.005	1825	1.006	1.019
D	sum of comments	0.094	0.084	-0.07	0.093	0.260	0.003	691	1.010	1.036
d_T	sum of comments (T)	0.006	0.098	-0.194	0.008	0.193	0.003	1435	1.007	1.020
d_U	sum of comments (U)	-0.025	0.215	-0.506	-0.005	0.326	0.005	1947	1.011	1.024

T = trustworthy advisor, U = untrustworthy advisor. *D* = item detection, *d* = source memory. The covariates were used as predictors for the MPT parameters in separate analyses. The participant count of the frequency of "likes" or comments was used unless it is indicated that the count refers to the participant's frequency per source (T, U). The standardized slope estimates are reported. The model restriction $D_N = D_T = D_{U;}\, a = g$ is applied for parameter estimation.

Table S4

Covariate Estimates (Probability Scale) (Experiment 2)

parameter	covariate	Mean	SD	2.5%	50%	97.5%	Time-series SE	n.eff	Rhat	R_95%
D	sum of likes	0.015	0.064	-0.110	0.016	0.139	0.002	792	1.006	1.021
d_T	sum of likes (T)	0.151	0.078	0.003	0.149	0.310	0.003	880	1.021	1.065
d_U	sum of likes (U)	-0.036	0.222	-0.620	-0.021	0.338	0.007	1084	1.084	1.091

D	social media time	-0.029	0.063	-0.152	-0.029	0.094	0.002	976	1.002	1.008
d_T	social media time	-0.015	0.081	-0.168	-0.016	0.151	0.003	844	1.005	1.016
d_U	social media time	-0.176	0.224	-0.708	-0.156	0.196	0.007	980	1.102	1.201

Note. T = trustworthy advisor, U = untrustworthy advisor. *D* = item detection, *d* = source memory. The covariates were used as predictors for the MPT parameter in separate analyses. The participant count of the frequency of "likes" was used unless it is indicated that the count refers to the participant's frequency per source (T, U). The standardized slope estimates are reported. The model restriction ($D_N = D_T = D_U; a = g$) is applied for parameter estimation.

Supplement 3: Advice Taking Analyses with Alternative Preprocessing

Table S5

Multilevel Modeling Results for The Influence of Advisor and Advisor Source Memory on Advice Weighting (Preregistered Exclusion) (Experiment 1)

Fixed Effect	*b*	*95% CI*	*SE*	*df*	*t*	*p*
Intercept	0.10	-0.01, 0.22	0.06	59.08	1.76	.084
IE	0.08	0.06, 0.09	0.01	3438.25	11.21	<.001
advice	0.90	0.87, 0.92	0.01	85.06	67.67	<.001
advisor	-0.05	-0.11, 0.01	0.03	3573.49	-1.62	.106
d	0.01	-0.02, 0.04	0.02	1603.02	0.56	.576
advice x advisor	0.01	-0.00, 0.02	0.01	3577.62	1.17	.243
advice x d	-0.002	-0.01, 0.004	0.003	3494.66	-0.64	.524
advisor x d	-0.03	-0.09, 0.02	0.03	3577.04	-1.15	.250
advice x advisor x d	0.01	-0.001, 0.02	0.01	3583.60	1.70	.089

Note. The advice as well as the initial and final estimates are log-transformed. The advisor variable is effect coded (trustworthy: 0.5, untrustworthy: -0.5). For this preregistered analysis, we excluded all estimates that exceed the respective 75%-quantile or that fall below the respective 25%-quantile by more than 1.5 times the respective interquartile range per item. Based on this criterion, we excluded 23.37 % of the data (initial estimates: 5.91%, final estimates: 19.38%).

Table S6

Multilevel Modeling Results for The Influence of Advisor and Advisor Source Memory on Advice Weighting (Preregistered Exclusion) (Experiment 2)

Fixed Effect	***b***	***95% CI***	***SE***	***df***	***t***	***p***
$Intercept$	0.05	-0.06, 0.15	0.05	58.60	0.88	.383
IE	0.06	0.06, 0.07	0.004	8827.57	15.41	<.001
$advice$	0.92	0.90, 0.95	0.01	70.81	78.76	<.001
$advisor$	-0.003	-0.04, 0.03	0.02	8946.07	-0.16	.876
d	0.01	-0.01, 0.03	0.01	4111.51	0.94	.349
$advice\ x\ advisor$	-0.00003	-0.01, 0.01	0.004	8961.86	-0.01	.993
$advice\ x\ d$	-0.001	-0.005, 0.003	0.002	8867.16	-0.50	.617
$advisor\ x\ d$	0.01	-0.03, 0.04	0.02	8927.21	0.52	.607
$advice\ x\ advisor\ x\ d$	-0.00004	-0.01, 0.01	0.004	8939.00	-0.01	.992

Note. The advice as well as the initial and final estimates are log-transformed. The advisor variable is effect coded (trustworthy: 0.5, untrustworthy: -0.5). For this preregistered analysis, we excluded all estimates that exceed the respective 75%-quantile or that fall below the respective 25%-quantile by more than 3 times the respective interquartile range per item. Based on this criterion, we excluded 16.74% of the data (initial estimates: 1.18%, final estimates: 15.92%).

Supplement 4: Alternative Advice Taking Measure

To better compare our findings to previous literature, we calculated the commonly reported advice taking measure introduced by Harvey and Fischer (1997) per source for each participant. This measure is calculated as

$$\frac{final\ judgment_{ij} - \ initial\ judgment_{ij}}{advice_{ij} \ - \ initial\ judgment_{ij}}$$

and provides an intuitive continuous measure of advice weighting between 0 (ignoring advice) and 1 (fully adopting advice; Harvey & Fischer, 1997). For Experiment 1, this measure suggests an average advice taking of 0.77 for both sources ($SD_{trustworthy}$ = 0.18, $SD_{untrustworthy}$ = 0.17) indicating that participants' final estimates shifted on average 77% towards the advice. A multilevel analysis in which source and source memory as well as their interaction is included is illustrated in *Table S7*. This analysis suggests no evidence of an influence of source and no interaction with source memory on advice taking.

Table S7

Multilevel Modeling Results for the Influence of Advisor and Source Memory on Advice Taking (AT) (Experiment 1)

Fixed Effect	*b*	*95% CI*	*SE*	*df*	*t*	*p*
$Intercept$	0.77	0.73, 0.80	0.02	142.59	42.11	<.001
$advisor$	-0.01	-0.03, 0.02	0.01	3285.20	-0.45	.652
d	0.01	-0.02, 0.04	0.01	160.70	0.57	.568
$advisor\ x\ d$	0.001	-0.02, 0.02	0.01	3298.24	0.10	.920

Note. The advice as well as the initial and final estimates were log-transformed before the advice taking measure was calculated. We excluded 27.86 % of the data for which the measure was not defined or not interpretable (AT < 0 or AT > 1). Keeping values greater 1 or smaller than 0 results in the same significance pattern. The advisor variable is effect coded (trustworthy: 0.5, untrustworthy: -0.5). The source memory parameter (*d*) is z-standardized for facilitated interpretability and estimated

separately per source.

For Experiment 2, this advice taking measure indicates a similar strong mean individual weighting of advice for both sources ($M_{trustworthy}$ = 0.79; $SD_{trustworthy}$ = 0.17; $M_{untrustworthy}$ = 0.79; $SD_{untrustworthy}$ = 0.16) and also no influence of source or the interaction between source and source memory on advice taking (see *Table S8*).

Table S8

Multilevel Modeling Results for the Influence of Advisor and Source Memory on Advice Taking (AT) (Experiment 2)

Fixed Effect	***b***	***95% CI***	***SE***	***df***	***t***	***p***
Intercept	0.79	0.76, 0.82	0.01	137.81	59.20	<.001
advisor	0.004	-0.01, 0.02	0.01	7641.27	0.54	.588
d	0.01	-0.01, 0.03	0.01	434.60	1.17	.242
advisor x d	0.01	-0.003, 0.03	0.01	7761.51	1.60	.109

Note. The advice as well as the initial and final estimates were log-transformed before the advice taking measure was calculated. We excluded 26.99 % auf the data for which the advice taking measure was not defined or not interpretable (AT < 0 or AT > 1). The significance pattern remains the same when estimates > 1 and < 0 are kept. The advisor variable is effect coded (trustworthy: 0.5, untrustworthy: -0.5). The source memory parameter (*d*) is z-standardized for facilitated interpretability and estimated separately per source.

Supplement 5: Exploratory Advice Taking Analyses with Source Assignment

One methodological explanation for the lack of an influence of advisor credibility on advice integration could be that the source monitoring task changed participants' perceptions of sources. Specifically, wrong source assignments (which occurred often based on the poor source memory estimates) could lead participants to treat untrustworthy advice as trustworthy advice during the final estimate due to wrong source classifications in the previous task. However, this hypothesis was not supported when we analyzed source responses instead of true advice sources as moderating variable for the weighting of advice. We present these results in *Table S9* and *Table S10.*

Table S9

Multilevel Modeling Results for Advice Weighting Dependent on Assigned Advisor Source in the Source Monitoring Task (Experiment 1)

Fixed Effect	*b*	*95% CI*	*SE*	*df*	*t*	*p*
Intercept	0.18	0.08, 0.28	0.05	64.31	3.42	.001
IE	0.21	0.19, 0.23	0.01	2520.12	22.24	<.001
advice	0.75	0.72, 0.77	0.01	117.18	58.43	<.001
advisor_assigned	0.07	-0.03, 0.17	0.05	4494.38	1.41	.158
advice x advisor_assigned	-0.02	-0.04, 0.001	0.01	4502.26	-1.90	.058

Note. The advice as well as the initial and final estimates are log-transformed. The advisor variable is effect coded (trustworthy: 0.5, untrustworthy: -0.5). Only trials in which presented advice was assigned to an old source (trustworthy or untrustworthy advisor) instead of the source new (distractors) were included.

Table S10

Multilevel Modeling Results for Advice Weighting Dependent on Assigned Advisor Source in the Source Monitoring Task (Experiment 2)

Fixed Effect	*b*	*95% CI*	*SE*	*df*	*t*	*p*
Intercept	0.15	0.06, 0.23	0.04	58.88	3.45	.001
IE	0.15	0.14, 0.17	0.01	7617.59	27.91	<.001
advice	0.81	0.79, 0.83	0.01	91.44	81.12	<.001
advisor_assigned	-0.02	-0.08, 0.03	0.03	10054.42	-0.86	.389
advice x advisor_assigned	0.004	-0.01, 0.02	0.01	10045.46	0.62	.539

Note. The advice as well as the initial and final estimates are log-transformed. The advisor variable is effect coded (trustworthy: 0.5, untrustworthy: -0.5). Only trials in which presented advice was assigned to an old source (trustworthy or untrustworthy advisor) instead of the source new (distractors) were included.