Online Appendix

# Believing and Sharing Information by Fake Sources: An Experiment

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## A.1 Measures: Wording and coding of survey questions

The table below outlines question wording (translated from German) and coding decisions. All coding is made transparent in the R Markdown file accompanying the study.

Table A1: Measures: Wording and coding of survey questions

| Variable | Question | Choices/Coding |
|---|---|---|
| Age | "How old are you?" | Drop-down input |
| Gender | "Which gender do you have?" | "Female"/"Male" |
| State of residence | "In which federal state do you live?" | Choice among 16 federal states |
| Source knowledge | "Do you recognize the following media?" | "Yes"/"No" battery for 11 news sources in random order; average index calculated for 7 mainstream sources |
| Source reading/watching | "And have you, whether offline or offline, ever read or viewed news of the respective medium?" | "Yes"/"No" battery for 11 news sources in random order; Asked only news sources the respondents indicated recognizing |
| Source trust | "Even if you don't know all of them: Do you think you can trust the following media?" | Labelled 5-point scale: "Not at all", "rather not", "partly", "rather", "completely"; average index calculated for 7 mainstream sources |
| Immigration culture attitude | "Would you say that cultural life in Germany is generally undermined or enriched by immigrants? 0 means undermined, 10 means enriched." | 11-point scale with labelled end points; average index calculated together with other immigration attitude items |
| Immigration economy attitude | "Would you say that it is generally bad or good for the German economy that immigrants come here? 0 means bad, 10 means good." | 11-point scale with labelled end points |
| Immigration security attitude | "Would you say that Germany becomes less safe or safer with immigrants? 0 means less safe and 10 means safer." | 11-point scale with labelled end point s |
| Immigration life attitude | "Would you say that immigrants make Germany a worse or better place to live? 0 means worse and 10 means better." | 11-point scale with labelled end points |
| Immigration border attitude | "Would you say that Europe sufficiently protects its external borders against illegal immigration? 0 means protection is not sufficient, 10 means protection is sufficient." | 11-point scale with labelled end points |
| Platform use | "Do you have an Email/Facebook/Twitter account? Do you have Whatsapp installed?" | Choice between Yes/Yes, but I don't use it/No |
| Sharing frequency | "How often do you spread news reports via Email/Facebook/Twitter/Whatsapp?" | Choice between "Less"/"Several times a year"/"Several times a month"/"Once a week"/"Daily" |
| Political knowledge | "Which is the party of the following politician?" | Choice between 7 parties and "Don't know" asked for 9 politicians; combined into index adding correct answers |
| Overconfidence | "You just answered nine knowledge questions. How many do you think you answered correctly?" | 10-point scale from 0 to 9; overconfidence computed by subtracting knowledge index from this answer |
| Education | "What is the highest educational attainment you have achieved?" | Choice between 7 options |
| Turnout | "Have you voted at the 2017 federal elections?" | Choice between "Yes"/"No"/"I was not eligible to vote"/"Don't Know" |
| Vote/Hypothetical vote | "Which party have you voted for with your main vote ("Zweitstimme")?" If respondent had not voted or did not know: "Which party would you have voted with your main vote ("Zweitstimme")?" | Choice between six main parties/"Other party"/"Don't Know" |

| Variable | Question | Choices/Coding |
|---|---|---|
| Income | What is the complete net income of your household? | Choice between 11 income brackets, from “0 - 500 Euro” to “5001 Euro or more” |

## A.2 News reports used in the survey experiment

Below, we provide the texts of the five experimental reports in the original German, and a translated English version. Reports 1 and 5 were true but slightly shortened reports and not manipulated, so the only text variation is the reference to the source. Reports 2–4 were manipulated both with regard to their content and the source. Differences are indicated in square brackets, with pro-migration contents first and anti-migration contents second.

### A.2.1 Report 1

#### A.2.1.1 Original German version

*Headline:* Weniger Anträge als erwartet

*Teaser (in Screenshot only):* Die Frage des Familiennachzugs hatte die Koalitionsverhandlungen schwer belastet. Nun zeigt sich: Nur wenige Flüchtlinge wollen ihre Angehörigen nachholen.

*Text:* Flüchtlinge mit eingeschränktem Schutz wollen viel weniger Familienangehörige nach Deutschland nachziehen lassen als vielfach prognostiziert. Von Anfang August bis zum 5. November 2018 sind lediglich 786 Visa für den Familiennachzug zu subsidiär Schutzberechtigten erteilt worden. Das geht aus einem Vermerk der Bundesregierung hervor, der [SOURCE] vorliegt. Von August bis Jahresende sind maximal 5000 Visa möglich.

Die Frage des Familiennachzugs zu den etwa 300.000 Flüchtlingen, die mit sogenanntem subsidiären Schutzstatus in Deutschland leben, hatte zu Jahresbeginn die Koalitionsverhandlungen zwischen Union und SPD schwer belastet. Politiker hatten gewarnt, dass bis zu 300.000 Angehörige nach Deutschland kommen wollten, sollte der damals geltende Stopp des Familiennachzugs auslaufen.

Die Koalition einigte sich auf den Kompromiss, monatlich bis zu 1000 Visa für enge Angehörige - also Ehepartner, minderjährige Kinder oder Eltern hier lebender Minderjähriger - zu vergeben. Doch diese Zahl wird auch nach Einschätzung des Innenministeriums kaum erreicht werden, wie [SOURCE] aus Ministeriumskreisen erfahren hat.

#### A.2.1.2 Translated English version

*Headline:* Fewer applications than expected

*Teaser (in screenshot only):* The issue of family reunification had put a heavy strain on the coalition negotiations. Now it is clear that only a few refugees want to bring their relatives to join them.

*Text:* Refugees with limited protection want much fewer family members to follow them to Germany than many had predicted. Between the beginning of August and November 5, 2018, only 786 visas have been issued for family reunification with persons granted subsidiary protection. This is the result of a statement issued by the federal government, which has been published in [SOURCE]. From August to the end of the year, a maximum of 5,000 visas are possible.

At the beginning of the year, the issue of family reunification with the approximately 300,000 refugees who are living in Germany with so-called subsidiary protection status had put a heavy strain on the coalition negotiations between the CDU/CSU and the SPD. Politicians had warned that up to 300,000 relatives would want to come to Germany if the stop on family reunification, which was in effect at the time, expired.

The coalition agreed on a compromise to issue up to 1000 visas per month for close relatives - i.e. spouses, under-age children or parents of minors living here. But even according to estimates by the interior ministry this number will hardly be reached, as [SOURCE] has learned from ministry circles.

### A.2.2 Report 2

**A.2.2.1 Original German version** *Headline:* Zuwanderer unter Tatverdächtigen [nicht überrepräsentiert / überrepräsentiert]

*Teaser (in Screenshot only):* Die Zahlen der neuesten Polizeistatistik zeigen: Zuwanderer sind in Deutschland nicht [überdurchschnittlich / überdurchschnittlich] oft tatverdächtig.

*Text:* Im vergangenen Jahr waren [1,9 / 15,1] Prozent aller Straftatverdächtigen in Deutschland Zuwanderinnen und Zuwanderer. Insgesamt wurden 1,97 Millionen Verdächtige einer Straftat registriert, davon waren [37.233 / 297.273] Zuwanderer. Das geht aus der Polizeilichen Kriminalstatistik (PKS) für 2017 hervor, die [SOURCE] vorab analysiert hat.

Als Zuwanderer erfasst die PKS 2017 Asylbewerber, Geduldete, "unerlaubt Aufhältige", subsidiär Geschützte sowie die wenigen Kontingentflüchtlinge, die über internationale Hilfsprogramme in Deutschland Aufnahme fanden. Der so definierte Personenkreis hat Ende 2017 etwa zwei Prozent der Bevölkerung ausgemacht. Es gab vergangenes Jahr also [etwa so viele / mehr] Verdachtsfälle gegen Zuwanderer, [wie / als] es ihrem Anteil an der Gesamtbevölkerung entspricht. Bei den Berechnungen wurden jeweils ausländerrechtliche Straftaten wie etwa ein illegaler Aufenthalt ausgeklammert, da diese nicht von Deutschen begangen werden können.

Die Informationen bestätigen einen Trend, über den [SOURCE] bereits im Vorjahr berichtet hatte. Demnach sind Zuwanderer [nicht überdurchschnittlich / überdurchschnittlich] oft an der gesamten registrierten Kriminalität beteiligt.

**A.2.2.2 Translated English version** *Headline:* Immigrant [not overrepresented / overrepresented] among criminal suspects

*Teaser (in screenshot only):* The figures from the latest police statistics show: Immigrants [are / are not] suspected of a crime in Germany above average.

*Text:* Last year, [1.9 / 15.1] percent of all suspected criminals in Germany were immigrants. A total of 1.97 million suspects of a crime were registered, of which [37,233 / 297,273] were immigrants. This is the result of the police crime statistics (PKS) for 2017, which [SOURCE] has analyzed in advance.

The 2017 statistics include asylum seekers, tolerated persons, "unauthorised residents", people granted subsidiary protection and the few contingent refugees who have been accepted in Germany through international aid programmes. At the end of 2017, the group of people defined in this way made up about two percent of the population. So last year there were [about as many / more] suspected cases against immigrants [as / than] corresponds to their share of the total population. In the calculations, criminal offences under aliens law, such as illegal residence, were excluded, as these cannot be committed by Germans.

The information confirms a trend that [SOURCE] had already reported in the previous year. Accordingly, immigrants [are / are not] involved in the total amount of registered crime above average.

### A.2.3 Report 3

**A.2.3.1 Original German version** *Headline:* Mehrheit von Flüchtlingen schafft den [Deutschtest / Deutschtest nicht]

*Teaser (in Screenshot only):* Seit zwölf Jahren gibt es Integrationskurse für Flüchtlinge – [mit / ohne] Erfolg, wie die Abschlusszahlen des letzten Jahres zeigen.

*Text:* Seit mehr als zwölf Jahren lernen Zuwanderer Deutsch in den Integrationskursen des Bundesamts für Migration und Flüchtlinge (BAMF). Nach [anfänglichen Schwierigkeiten sind die Kurse inzwischen ein Erfolg / anfänglichem Erfolg stecken die Kurse inzwischen in Schwierigkeiten]: Eine Auswertung der Statistiken durch [SOURCE] zeigt, dass die Abschlussquoten deutlich [gestiegen / gesunken] sind.

So nahmen 2017 genau 376.468 Menschen erstmals an einem Integrationskurs teil. In diesem Zeitraum haben [337.504 / 111.623] Teilnehmer den Integrationskurs erfolgreich absolviert, also circa [90 / 30] Prozent. Die Erfolgsquote ist damit wesentlich [höher / geringer] als noch vor wenigen Jahren: Für den Zeitraum von 2005 bis 2015 ergibt die Analyse durch [SOURCE] einen Wert von knapp 1,1 Millionen Absolventen bei über 1,8 Millionen Teilnehmern, also einer Abschlussquote von etwa 60 Prozent.

Der [Erfolg / Misserfolg] spiegelt sich auch in den Prüfungsergebnissen: Von denjenigen, die 2017 am Sprachtest zum Kursende teilnahmen, schaffte eine [Mehrheit von 71,2% / nur eine Minderheit von 31,2%] das Sprachniveau B1, dem Maßstab für ausreichende deutsche Sprachkenntnisse laut Aufenthaltsgesetz.

**A.2.3.2 Translated English version** *Headline*: The majority of refugees [do not pass / pass] the German test

*Teaser (in screenshot only):* Integration courses for refugees have been running for twelve years - [with / without] success, as the final figures of last year show.

*Text*: For more than twelve years, immigrants have been learning German in the integration courses of the Federal Office for Migration and Refugees (BAMF). After [initial difficulties,

the courses are now a success / initial success the courses are now in difficulties]: An evaluation of the statistics by [SOURCE] shows that the completion rates have [risen / fallen] substantially.

In 2017 exactly 376,468 people took part in an integration course for the first time. During this period [337,504 / 111,623] participants successfully completed the integration course, i.e. about [90 / 30] per cent. The success rate is thus considerably [higher / lower] than just a few years ago: For the period from 2005 to 2015, the analysis by [SOURCE] shows a figure of just under 1.1 million graduates with over 1.8 million participants, i.e. a completion rate of around 60 percent.

The [success / failure] is also reflected in the examination results: Of those who took the language test at the end of the course in 2017, a [majority of 71.2% / only a minority of 31.2%] achieved language level B1, the benchmark for sufficient German language skills according to the Residence Act.

### A.2.4 Report 4

**A.2.4.1 Original German version** *Headline:* Es gibt [keine / eine] Sogwirkung der Seenotrettung

*Teaser (in Screenshot only):* Die Flüchtlingszahlen im Mittelmeer der vergangenen Jahre lassen den Schluss zu, dass die private Seenotrettung [keine / eine] Sogwirkung entfaltet.

*Text:* Die private Seenotrettung von Migranten zwischen Italien und Nordafrika wurde im Sommer 2018 durch die italienische Regierung so gut wie gestoppt – doch die Diskussion über die Einsätze der Retter tobt weiter. Kritiker der NGOs glauben, dass erst die Anwesenheit der Schiffe Migranten dazu bewegt, den lebensgefährlichen Trip zu wagen. Die Helfer selbst und ihre Unterstützer wollen von einer Sogwirkung ihres Handelns nichts wissen. Die Redaktion der [SOURCE] hat die Zahlen des UN-Flüchtlingshilfswerks zu den Ankünften nach Italien analysiert.

Insgesamt [entkräften / bestärken] die Daten den Verdacht, dass die Rettungsboote die Migration angekurbelt haben. Ende 2013 startete mit Mare Nostrum die erste große staatliche Rettungsmission von italienischer Seite. Im ersten Jahr der Mission [sank / stieg] die Anzahl der ankommenden Menschen gegenüber dem Vorjahr auf [85.050 / 170.000]. Die Italiener stoppten Ende 2014 das Programm. Im Jahr 2015 wurde Mare Nostrum durch die militärische EU-Mission Triton ersetzt, die mit deutlich weniger Schiffen ausgestattet war. [Trotzdem / In Folge dessen] kamen mit [153.842 / 76.921] wieder [mehr / weniger] Bootsflüchtlinge nach Italien.

Schließlich fanden sich 2016 immer mehr private Retter im Mittelmeer ein. Zur Hochzeit ihrer Aktivität [verringerte / vergrößerte] sich die Anzahl der Ankünfte, auf [59.685 / 119.369] im Jahr 2017. [Obwohl / Seit] die italienische Regierung vermehrt gegen die NGOs vorgeht, gab es 2018 wieder etwas [mehr / weniger] Ankünfte. Die von [SOURCE] analysierten Daten legen also [nicht nahe / nahe], dass die Anwesenheit der Retter eine Sogwirkung entfaltet.

#### A.2.4.2 Translated English version

*Headline:* There [is no / is a] pull effect of sea rescue

*Teaser (in screenshot only):* The number of refugees in the Mediterranean in recent years leads to the conclusion that private sea rescue is [not having / having a] pull effect.

*Text:* The private sea rescue of migrants between Italy and North Africa was almost stopped by the Italian government in the summer of 2018 - but the discussion about the rescue operations continues to rage. Critics of the NGOs believe that the presence of the ships alone will motivate migrants to make the life-threatening trip. The rescuers themselves and their supporters deny any pull effect of their actions. Reporters of [SOURCE] have analyzed the figures of the UN refugee relief organisation on the arrivals in Italy.

Overall, the data [refute / confirm] the suspicion that the lifeboats have stimulated migration. At the end of 2013 Mare Nostrum was the first major government rescue mission from Italy. In the first year of the mission the number of arrivals [sank / rose] to [85,050 / 170,000] compared to the previous year. The Italians stopped the programme at the end of 2014. In 2015 Mare Nostrum was replaced by the EU military mission Triton, which was equipped with significantly fewer ships. [Nevertheless / as a consequence] [more / less] boat refugees came to Italy again with [153.842 / 76.921].

Finally, more and more private rescuers arrived in the Mediterranean in 2016. At the peak of their activity, the number of arrivals [decreased / increased] to [59,685 / 119,369] in 2017. [Although / since] the Italian government is increasingly taking action against the NGOs, there were again [some more / fewer] arrivals in 2018. The data analyzed by [SOURCE] thus [does not suggest / suggest] that the presence of the rescuers has a pull effect.

### A.2.5 Report 5

#### A.2.5.1 Original German version

*Headline:* Weniger Flüchtlinge nutzen Ausreiseförderung

*Teaser (in Screenshot only):* Im vergangenen Jahr haben weniger Flüchtlinge das Förderprogramm der Bundesregierung zur freiwilligen Rückkehr angenommen.

*Text:* Die Zahl der Flüchtlinge, die über ein Förderprogramm der Bundesregierung freiwillig in ihre Heimat zurückkehren, ist in den vergangenen drei Jahren deutlich gesunken. Von Januar bis Ende November 2018 haben 15.089 Menschen das Angebot in Anspruch genommen, wie eine Auswertung der Statistiken durch [SOURCE] ergab.

Für das gesamte Jahr 2017 ergibt die Auswertung eine Zahl von 29.522 freiwilligen Rückkehrern, 2016 waren es noch 54.006. “Die - im Vergleich relativ hohe - Zahl der bewilligten freiwilligen Ausreisen des Jahres 2016 ist im Zusammenhang mit den in diesem Zeitraum historisch hohen Zugangszahlen von in Deutschland schutzsuchenden Menschen zu sehen”, erklärte eine Sprecherin des BAMF gegenüber [SOURCE].

Die Zahlen der Behörde beziehen sich ausschließlich auf die von Bund und Ländern angebotenen Programme für Rückkehrer. Dabei werden die Reisekosten von Rückkehrwilligen

übernommen und je nach Fall auch eine weitere Reisebeihilfe und ein Startgeld für das neue Leben im Heimatland.

#### A.2.5.2 Translated English version

*Headline*: Fewer refugees use return funds

*Teaser (in screenshot only):* In the past year, fewer refugees have accepted the federal government's support program for voluntary return.

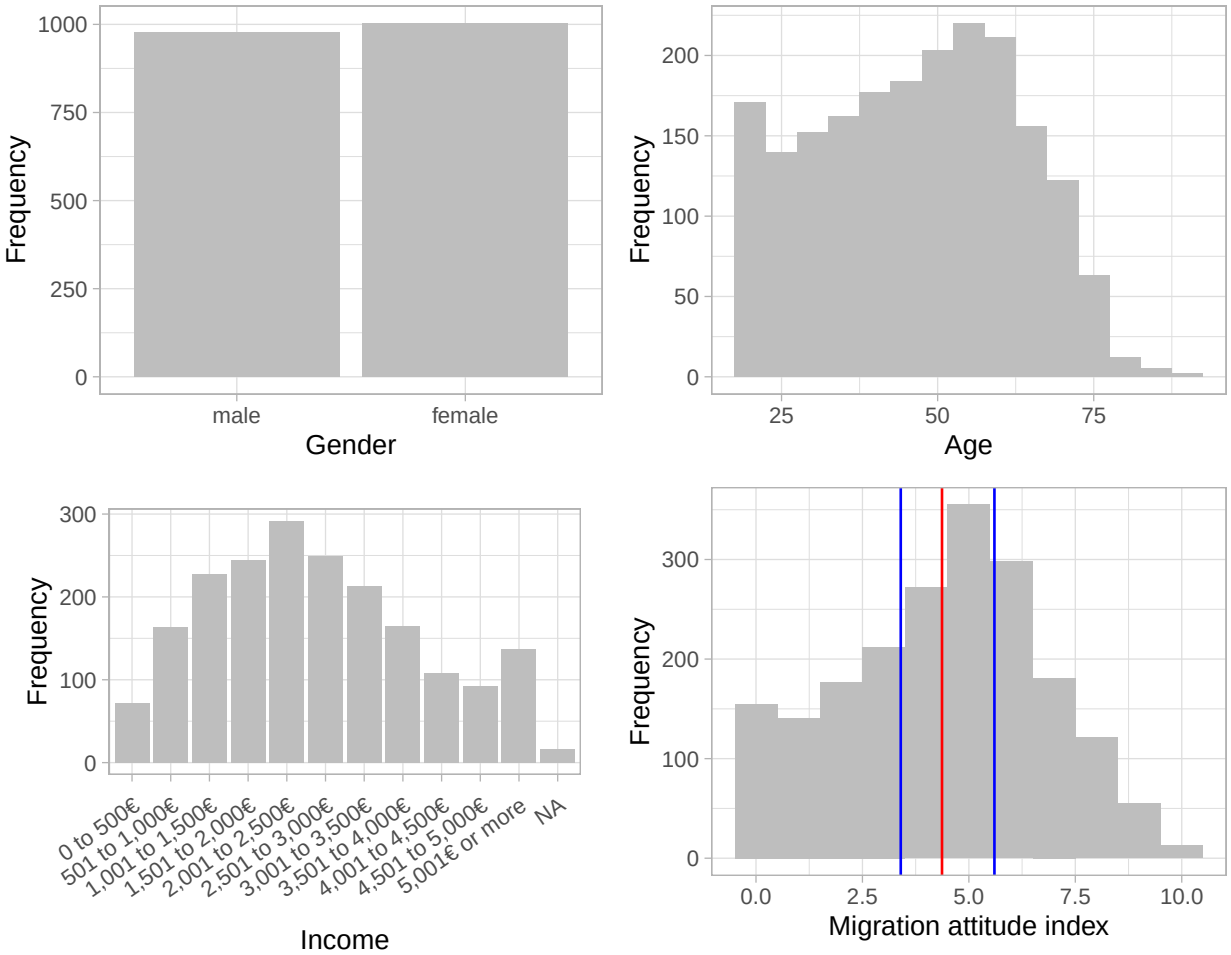
*Text:* The number of refugees who voluntarily return to their home country through a federal government support program has decreased significantly in the past three years. From January to the end of November 2018, 15,089 people have taken advantage of the offer, according to an evaluation of the statistics by [SOURCE].

For the entire year 2017, the evaluation reveals a number of 29,522 voluntary returnees, compared to 54,006 in 2016. "The - relatively high - number of voluntary departures granted in 2016 must be seen in connection with the historically high number of people seeking protection in Germany during this period," a spokeswoman of the BAMF told [SOURCE].

The authority's figures refer exclusively to the programmes for returnees offered by the Federal Government and the Länder. In these programmes, the travel costs of returnees are paid for and, depending on the case, also a further travel allowance and an entry fee for the new life in the home country.

## A.3 Descriptive graphs and summary statistics

Figure A1: Distributions: gender, age, income and migration attitude index




Note: Plot 4 displays the distribution of the individual average across the scales measuring attitudes towards immigration. Based on these attitudes, we constructed two treatment variables in combination with the content treatment (pro− and anti−migration).

Table A2, A3, and A4 display summary statistics for all variables used in the analysis (and some more).

Table A2: Summary statistics: Numeric variables

| Statistic | N | Mean | St. Dev. | Min | Max |
|---|---|---|---|---|---|
| Know Tagesschau | 1,974 | 0.95 | 0.21 | 0.00 | 1.00 |
| Know Heute | 1,973 | 0.94 | 0.24 | 0.00 | 1.00 |
| Know Sz | 1,966 | 0.84 | 0.37 | 0.00 | 1.00 |
| Know Faz | 1,970 | 0.83 | 0.37 | 0.00 | 1.00 |
| Know Focus | 1,970 | 0.89 | 0.31 | 0.00 | 1.00 |
| Know Bild | 1,967 | 0.91 | 0.28 | 0.00 | 1.00 |
| Know Nachrichten360 | 1,932 | 0.05 | 0.21 | 0.00 | 1.00 |
| Know Berliner | 1,941 | 0.21 | 0.41 | 0.00 | 1.00 |
| Know Spiegel | 1,972 | 0.91 | 0.28 | 0.00 | 1.00 |
| Know Rtdeutsch | 1,935 | 0.22 | 0.41 | 0.00 | 1.00 |
| Know Newsblitz | 1,934 | 0.04 | 0.20 | 0.00 | 1.00 |
| Read Tagesschau | 1,877 | 0.91 | 0.29 | 0.00 | 1.00 |
| Read Heute | 1,853 | 0.87 | 0.34 | 0.00 | 1.00 |
| Read Sz | 1,640 | 0.70 | 0.46 | 0.00 | 1.00 |
| Read Faz | 1,636 | 0.65 | 0.48 | 0.00 | 1.00 |
| Read Focus | 1,745 | 0.79 | 0.40 | 0.00 | 1.00 |
| Read Bild | 1,778 | 0.79 | 0.41 | 0.00 | 1.00 |
| Read Nachrichten360 | 90 | 0.49 | 0.50 | 0.00 | 1.00 |
| Read Berliner | 406 | 0.41 | 0.49 | 0.00 | 1.00 |
| Read Spiegel | 1,798 | 0.84 | 0.36 | 0.00 | 1.00 |
| Read Rtdeutsch | 422 | 0.66 | 0.48 | 0.00 | 1.00 |
| Read Newsblitz | 79 | 0.41 | 0.49 | 0.00 | 1.00 |
| Trust Tagesschau | 1,974 | 2.90 | 1.02 | 0.00 | 4.00 |
| Trust Heute | 1,975 | 2.84 | 1.01 | 0.00 | 4.00 |
| Trust Sz | 1,971 | 2.66 | 0.93 | 0.00 | 4.00 |
| Trust Faz | 1,972 | 2.64 | 0.95 | 0.00 | 4.00 |
| Trust Focus | 1,968 | 2.48 | 0.94 | 0.00 | 4.00 |
| Trust Bild | 1,975 | 1.34 | 1.02 | 0.00 | 4.00 |
| Trust Nachrichten360 | 1,967 | 1.69 | 0.86 | 0.00 | 4.00 |
| Trust Berliner | 1,968 | 2.06 | 0.87 | 0.00 | 4.00 |
| Trust Spiegel | 1,972 | 2.52 | 0.96 | 0.00 | 4.00 |
| Trust Rtdeutsch | 1,971 | 1.67 | 0.93 | 0.00 | 4.00 |
| Trust Newsblitz | 1,969 | 1.55 | 0.85 | 0.00 | 4.00 |
| Trust Tagesschau Known | 1,875 | 2.94 | 1.00 | 0.00 | 4.00 |
| Trust Heute Known | 1,852 | 2.88 | 0.98 | 0.00 | 4.00 |
| Trust Sz Known | 1,647 | 2.78 | 0.88 | 0.00 | 4.00 |
| Trust Faz Known | 1,638 | 2.75 | 0.89 | 0.00 | 4.00 |
| Trust Focus Known | 1,748 | 2.53 | 0.91 | 0.00 | 4.00 |
| Trust Bild Known | 1,787 | 1.39 | 1.02 | 0.00 | 4.00 |
| Trust Nachrichten360 Known | 93 | 2.41 | 0.84 | 0.00 | 4.00 |
| Trust Berliner Known | 407 | 2.34 | 0.86 | 0.00 | 4.00 |
| Trust Spiegel Known | 1,795 | 2.58 | 0.94 | 0.00 | 4.00 |
| Trust Rtdeutsch Known | 424 | 1.89 | 1.13 | 0.00 | 4.00 |
| Trust Newsblitz Known | 80 | 2.09 | 0.90 | 0.00 | 4.00 |

Table A3: Summary statistics: Numeric variables

| Statistic | N | Mean | St. Dev. | Min | Max |
|---|---|---|---|---|---|
| Age | 1,980 | 46.53 | 16.07 | 18 | 89 |
| Sex | 1,980 | 0.49 | 0.50 | 0 | 1 |
| Treatment Source | 1,980 | 0.49 | 0.50 | 0 | 1 |
| Treatment Channel | 1,980 | 0.50 | 0.50 | 0 | 1 |
| Treatment Content | 1,980 | 0.49 | 0.50 | 0 | 1 |
| Treatment Congruence50 | 1,980 | 0.52 | 0.50 | 0 | 1 |
| Treatment Congruence 30 | 1,353 | 0.52 | 0.50 | 0.00 | 1.00 |
| Belief Report 1 | 1,979 | 3.46 | 1.57 | 0.00 | 6.00 |
| Belief Report 5 | 1,978 | 3.72 | 1.39 | 0.00 | 6.00 |
| Share Report 1 Email | 1,930 | 0.05 | 0.23 | 0.00 | 1.00 |
| Share Report 1 Fb | 1,210 | 0.11 | 0.31 | 0.00 | 1.00 |
| Share Report 1 Twitter | 292 | 0.13 | 0.33 | 0.00 | 1.00 |
| Share Report 1 Whatsapp | 1,639 | 0.09 | 0.28 | 0.00 | 1.00 |
| Share Report 2 Email | 1,931 | 0.06 | 0.24 | 0.00 | 1.00 |
| Share Report 2 Fb | 1,210 | 0.11 | 0.31 | 0.00 | 1.00 |
| Share Report 2 Twitter | 292 | 0.14 | 0.35 | 0.00 | 1.00 |
| Share Report 2 Whatsapp | 1,641 | 0.11 | 0.31 | 0.00 | 1.00 |
| Share Report 5 Email | 1,414 | 0.05 | 0.23 | 0.00 | 1.00 |
| Share Report 5 Fb | 883 | 0.09 | 0.29 | 0.00 | 1.00 |
| Share Report 5 Twitter | 278 | 0.12 | 0.32 | 0.00 | 1.00 |
| Share Report 5 Whatsapp | 1,149 | 0.08 | 0.27 | 0.00 | 1.00 |
| Immigrant Culture | 1,980 | 5.01 | 2.90 | 0 | 10 |
| Immigrant Economy | 1,980 | 5.48 | 2.67 | 0 | 10 |
| Immigrant Security | 1,980 | 3.37 | 2.25 | 0 | 10 |
| Immigrant Life | 1,980 | 4.40 | 2.63 | 0 | 10 |
| Immigrant Border | 1,980 | 3.59 | 2.94 | 0 | 10 |
| Sharing Email | 1,930 | 0.79 | 1.29 | 0.00 | 4.00 |
| Sharing Fb | 1,208 | 1.05 | 1.32 | 0.00 | 4.00 |
| Sharing Twitter | 292 | 1.10 | 1.34 | 0.00 | 4.00 |
| Sharing Whatsapp | 1,641 | 1.40 | 1.55 | 0.00 | 4.00 |

Table A4: Summary statistics: Categorical variables

| Variable | Distribution |
|---|---|
| **Education (German school types)** | |
| None | 3 (0) |
| Finished Grundschule | 15 (1) |
| Finished Volksschule or Hauptschule | 257 (13) |
| Mittlere Reife, Realschulabschluss, Fachoberschulreife | 673 (34) |
| Fachhochschulreife | 160 (8) |
| Abitur | 384 (19) |
| Fachhochschule or Hochschule | 488 (25) |
| **Income** | |
| 0 to 500€ | 72 (4) |
| 501 to 1,000€ | 164 (8) |
| 1,001 to 1,500€ | 228 (12) |
| 1,501 to 2,000€ | 244 (12) |
| 2,001 to 2,500€ | 292 (15) |
| 2,501 to 3,000€ | 249 (13) |
| 3,001 to 3,500€ | 213 (11) |
| 3,501 to 4,000€ | 165 (8) |
| 4,001 to 4,500€ | 108 (5) |
| 4,501 to 5,000€ | 92 (5) |
| 5,001€ or more | 137 (7) |
| Missings | 16/1,980 (1) |
| **Use Email** | |
| No | 28 (1) |
| Yes, but I dont use it | 18 (1) |
| Yes | 1,931 (98) |
| Missings | 3/1,980 (0) |
| **Use Facebook** | |
| No | 600 (30) |
| Yes, but I dont use it | 166 (8) |
| Yes | 1,210 (61) |
| Missings | 4/1,980 (0) |
| **Use Twitter** | |
| No | 1,520 (77) |
| Yes, but I dont use it | 161 (8) |
| Yes | 293 (15) |
| Missings | 6/1,980 (0) |
| **Use Whatsapp** | |
| No | 312 (16) |
| Yes, but I dont use it | 24 (1) |
| Yes | 1,641 (83) |
| Missings | 3/1,980 (0) |

## A.4 Balance statistics and randomization

Table A5 and A6 provide balance statistics for content and source treatment. Table A7 provides statistics across the 2*2 treatment groups. Significance tests of group differences are done with t-tests/anova for continuous variables and chi-squared tests for categorical outcomes. None of the differences is statistically significant at a 95% level.

Table A5: Balance statistics for source treatment

| | Source treatment | | |
|---|---|---|---|
| Variable | Nachrichten 360 | Tagesschau | Diff. p-value |
| Age (mean) | 47.15 | 45.89 | 0.08 |
| Migration attitude (mean) | 4.29 | 4.45 | 0.15 |
| Sex (proportion) | 0.51 | 0.47 | 0.06 |
| Vote CDU/CSU (proportion) | 0.20 | 0.21 | 0.98 |

Table A6: Balance statistics for content treatment

| | Content treatment | | |
|---|---|---|---|
| Variable | Pro-migration | Anti-migration | Diff. p-value |
| Age (mean) | 46.80 | 46.25 | 0.45 |
| Migration attitude (mean) | 4.30 | 4.44 | 0.17 |
| Sex (proportion) | 0.49 | 0.50 | 0.76 |
| Vote CDU/CSU (proportion) | 0.19 | 0.22 | 0.77 |

Table A7: Balance statistics for source*content treatment

| Variable | Source*Content treatment | | | | Diff. p-value |
|---|---|---|---|---|---|
| | Pro-migration/Fake | Pro-migration/Real | Anti-migration/Fake | Anti-migration/Real | |
| Age (mean) | 47.90 | 45.74 | 46.42 | 46.06 | 0.05 |
| Migration attitude (mean) | 4.25 | 4.34 | 4.34 | 4.57 | 0.05 |
| Sex (proportion) | 0.50 | 0.48 | 0.53 | 0.46 | 0.11 |
| Vote CDU/CSU (proportion) | 0.20 | 0.19 | 0.21 | 0.23 | 0.89 |

## A.5 Representativeness: Sample and population

Our sample is a non-probability quota sample. Table A8, A9 and A10 display both population and sample statistics for the quota variables.

Table A8: Gender distribution (population and sample)

| Sex | Population: absolute | Population: percent | Data: absolute | Data: percent |
|---|---|---|---|---|
| male | 40843565 | 49.33 | 975 | 49.39 |
| female | 41948786 | 50.67 | 999 | 50.61 |

Table A9: Residence distribution (population and sample)

| State | Population: absolute | Population: percent | Data: percent | Data: absolute |
|---|---|---|---|---|
| Baden-Wuerttemberg | 11023425 | 13.31 | 13.32 | 263 |
| Bayern | 12997204 | 15.70 | 15.65 | 309 |
| Berlin | 3613495 | 4.36 | 4.36 | 86 |
| Brandenburg | 2504040 | 3.02 | 3.04 | 60 |
| Bremen | 681032 | 0.82 | 0.81 | 16 |
| Hamburg | 1830584 | 2.21 | 2.23 | 44 |
| Hessen | 6243262 | 7.54 | 7.55 | 149 |
| Mecklenburg-Vorpommern | 1611119 | 1.95 | 1.98 | 39 |
| Niedersachsen | 7962775 | 9.62 | 9.57 | 189 |
| Nordrhein-Westfalen | 17912134 | 21.64 | 21.58 | 426 |
| Rheinland-Pfalz | 4073679 | 4.92 | 4.91 | 97 |
| Saarland | 994187 | 1.20 | 1.22 | 24 |
| Sachsen | 4081308 | 4.93 | 4.96 | 98 |
| Sachsen-Anhalt | 2223081 | 2.69 | 2.68 | 53 |
| Schleswig-Holstein | 2889821 | 3.49 | 3.50 | 69 |
| Thueringen | 2151205 | 2.60 | 2.63 | 52 |

Table A10: Age distribution (population and sample)

| Age | Population: absolute | Population: percent | Data: percent | Data: absolute |
|---|---|---|---|---|
| 18-30ys | 12709507 | 18.35 | 20.87 | 412 |
| 31-43ys | 13190233 | 19.05 | 21.68 | 428 |
| 44-56ys | 16559912 | 23.91 | 27.25 | 538 |
| 57-69ys | 13796536 | 19.92 | 22.59 | 446 |
| 70+ | 12998017 | 18.77 | 7.60 | 150 |

## A.6 Source knowledge and trust

In the first part of our study, we exposed subjects to a list of nine real or made-up news sources and asked whether they knew, had read/watched and trusted each source. Below, we report source-level averages of these outcomes. Figure A2 shows that proportion of subjects affirming they recognize a source and say that they have read or watched it. It can be seen that almost everyone knows our real source (*Tagesschau*), and only few imagine knowing the source we made up (*Nachrichten 360)*.

Figure A2: Average knowledge of news sources

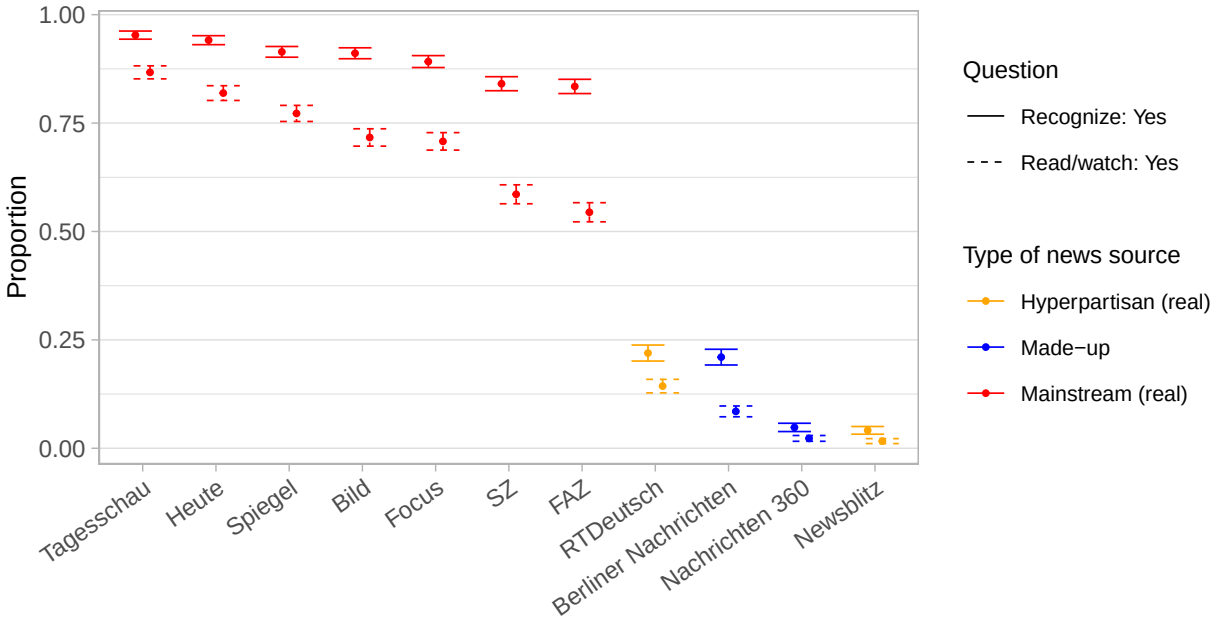
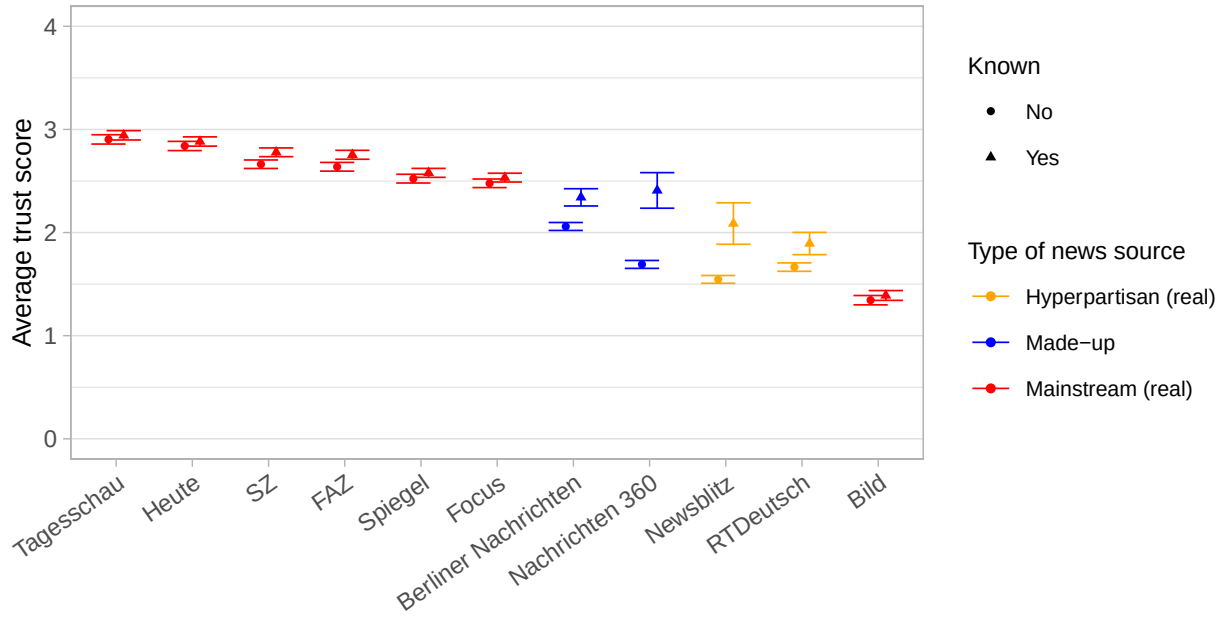



Figure A3 shows averages of subjects responses to the question: "Even if you don't know all of them: Do you think the following media can be trusted?" (Not at all, rather not, partly, rather, completely, cf. G. Pennycook and Rand 2019a), which we asked irrespective of whether people knew the source. Averages are reported separately for those who said they knew the respective source and those who said they did not.

The two Figures taken together allow some interesting interpretation of what is going on behind the source treatment manipulation: The familiarity gap between the two experimental sources is almost maximal (see Figure A2). The gap in credibility/trustworthiness perceptions is much smaller, as Figure A3 shows. This suggests that there is something else about the fake source (*Nachrichten 360*) that enhances its credibility. The fact that there is a substantive difference between the two made-up sources suggests that the name might make a difference. But (imagined) familiarity does play a role, since people who think they know the source also find it more credible than those who do not.

Figure A3: Average trust of news sources




## A.7 Believing and sharing by partisanship

Figure A4 and A5 plot belief and sharing intentions against vote intention to explore whether there might be any patterns across partisans that might qualify our results.

Figure A4: Belief by vote intention

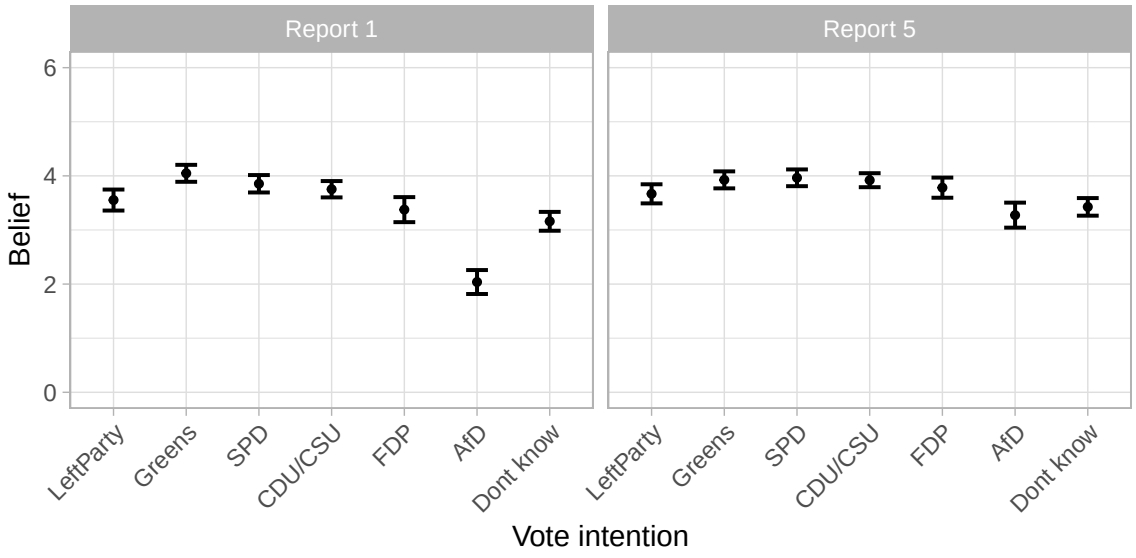
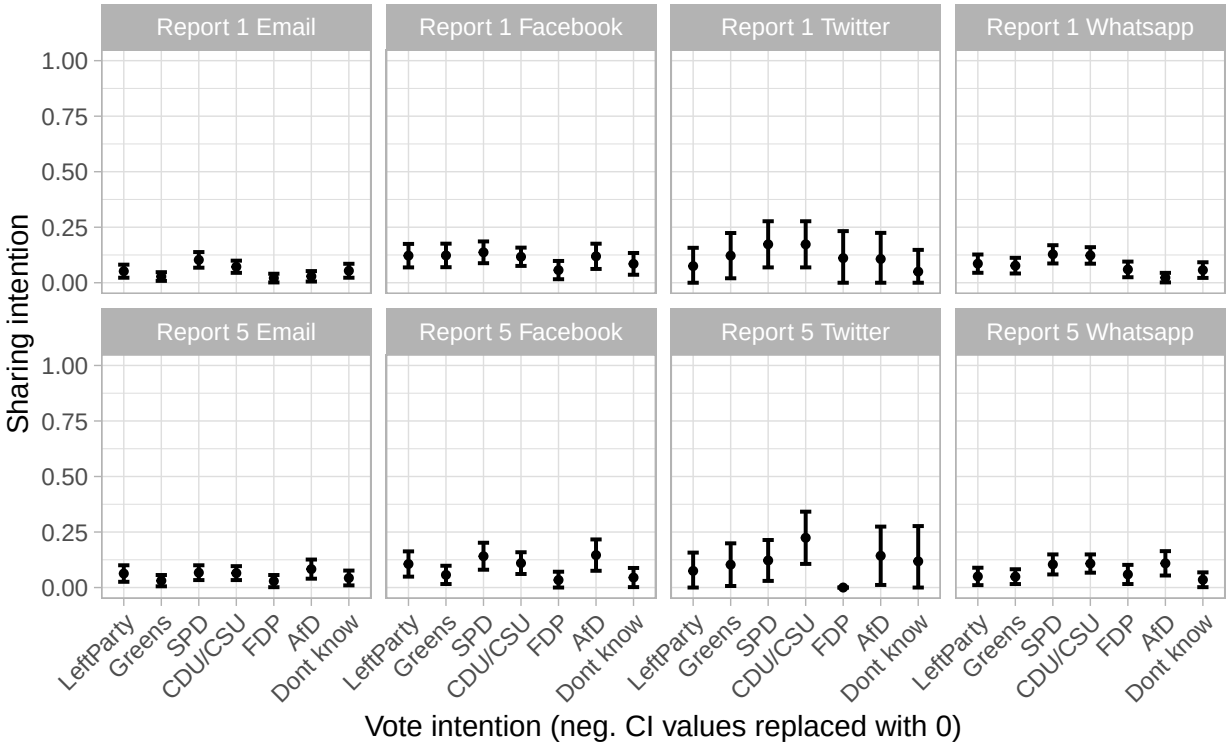


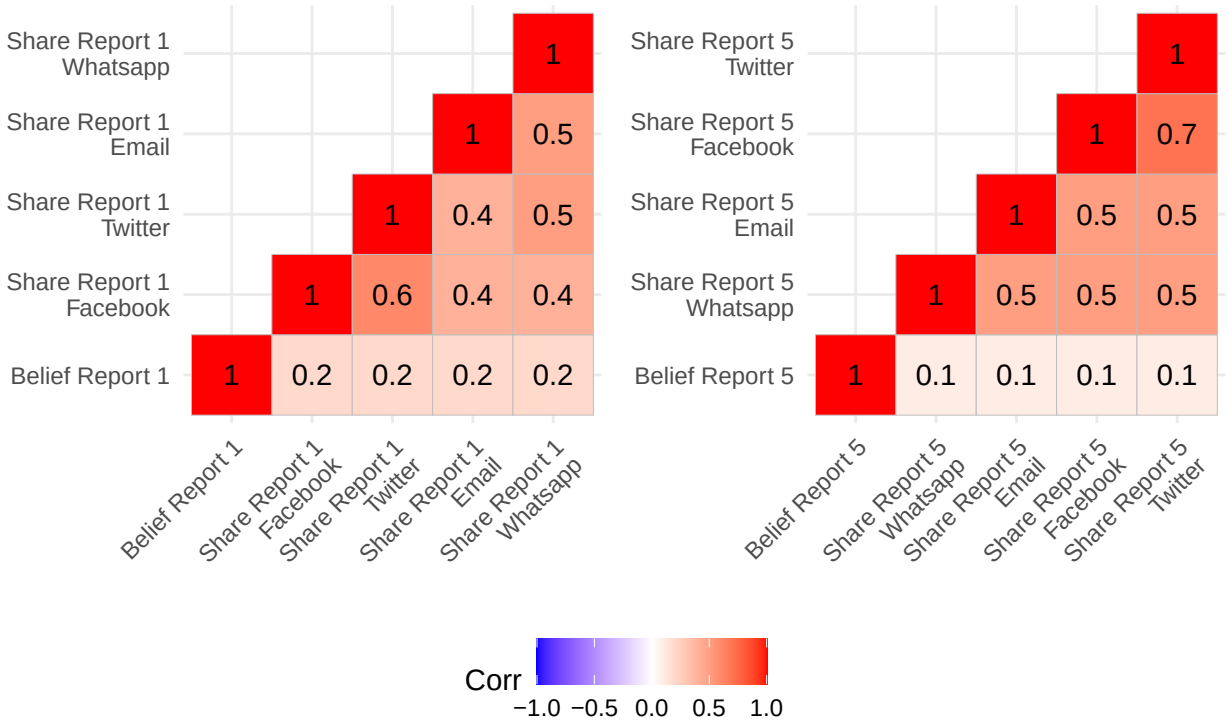
Figure A5: Sharing intention by vote intention



## A.8 Believing and sharing

Figure A6 visualizes two correlation matrices indicating the correlations between the belief and the sharing measures for Report 1 and 5 respectively (Pearson correlations). First, the correlation between our belief measure (Scale: 0-6) and our sharing measures (Scale: 0,1) seems quite low, especially given that the latter are asked directly after our belief measure. Second, the correlations between the different sharing measures are higher, however, also not particularly high.

Figure A6: Correlation plot: Outcomes for Report 1 and 5



## A.9 Models

Table A11: Linear regression: Source

| | Dependent variables for Report 1 | | | | |
|---|---|---|---|---|---|
| | Belief | Share Email | Share Facebook | Share Twitter | Share Whatsapp |
| Treat.: Source | 0.62*** | 0.02 | 0.05** | 0.04 | 0.03* |
| | (0.07) | (0.01) | (0.02) | (0.04) | (0.01) |
| Constant | 3.15*** | 0.05*** | 0.08*** | 0.10*** | 0.07*** |
| | (0.05) | (0.01) | (0.01) | (0.03) | (0.01) |
| Observations | 1,979 | 1,930 | 1,210 | 292 | 1,639 |
| $R^2$ | 0.04 | 0.002 | 0.01 | 0.004 | 0.003 |

*Note:* *p<0.05; **p<0.01; ***p<0.001;
Belief measured on 7-point scale (0-6) and sharing intention as a binary choice (0-1).

Table A12: Linear regression: Congruence

| | Dependent variables for Report 5 | | | | |
|---|---|---|---|---|---|
| | Belief | Share Email | Share Facebook | Share Twitter | Share Whatsapp |
| Treat.: Congruence | 0.19** | 0.004 | 0.05* | 0.07 | 0.02 |
| | (0.06) | (0.01) | (0.02) | (0.04) | (0.02) |
| Constant | 3.62*** | 0.05*** | 0.07*** | 0.08** | 0.07*** |
| | (0.04) | (0.01) | (0.01) | (0.03) | (0.01) |
| Observations | 1,978 | 1,414 | 883 | 278 | 1,149 |
| $R^2$ | 0.005 | 0.0001 | 0.01 | 0.01 | 0.002 |

*Note:* *p<0.05; **p<0.01; ***p<0.001;
Belief measured on 7-point scale (0-6) and sharing intention as a binary choice (0-1).

Table A13: Linear regression: Source, congruence and interaction

| | Dependent variables for Report 5 | | | | |
|---|---|---|---|---|---|
| | Belief | Share Email | Share Facebook | Share Twitter | Share Whatsapp |
| Treat.: Source | 0.77*** | 0.01 | −0.003 | −0.004 | 0.03 |
| | (0.09) | (0.02) | (0.03) | (0.06) | (0.02) |
| Treat.: Congruence | 0.35*** | −0.01 | 0.01 | 0.04 | 0.03 |
| | (0.09) | (0.02) | (0.03) | (0.05) | (0.02) |
| Treat.: Source*Congruence | −0.32** | 0.03 | 0.08* | 0.06 | −0.01 |
| | (0.12) | (0.02) | (0.04) | (0.08) | (0.03) |
| Constant | 3.24*** | 0.05*** | 0.07*** | 0.08* | 0.05*** |
| | (0.06) | (0.01) | (0.02) | (0.04) | (0.02) |
| Observations | 1,978 | 1,414 | 883 | 278 | 1,149 |
| $R^2$ | 0.05 | 0.004 | 0.02 | 0.02 | 0.003 |

*Note:* *p<0.05; **p<0.01; ***p<0.001;
Belief measured on 7-point scale (0-6) and sharing intention as a binary choice (0-1).

## A.10 Robustness checks

We considered the following threats to the validity of our conclusions. First, we re-estimated all results with the congruence treatment constructed from tertiles instead of the median of the composite attitude index. As Appendix A.10.1 illustrates, results are substantially the same. Effects on belief become even more pronounced. Second, we suspected that sharing intention may be different for frequent sharers, i.e., persons who tend to share "a few times a year" or more. In Appendix A.10.2 we provide descriptives for sharing behavior and show results for the subset of frequent sharers. Our previous finding that source and congruence treatment affect the sharing propensity for Facebook are confirmed, with the effect becoming somewhat stronger. Third, experimental findings may be invalid if participants do not properly receive the treatments. In Appendix A.10.3 we present descriptives regarding manipulation checks and results for the subsample of respondents who passed all four manipulation checks. Our findings remain robust, again with the evidence becoming more pronounced. Fourth, participants leaving the online questionnaire may either not be concentrated or go to verify the news reports we show them. Appendix A.10.4 provides re-estimations of our models for the subset of respondents who never left the questionnaire. Again, our findings seem robust. Only the congruence-source interaction, while substantially similar, becomes statistically insignificant. This might be due to the reduced sample size.

### A.10.1 Alternative implementation of congruence treatment

Table A14: Linear regression: Congruence (treatment defined by attitude tertiles)

| | Dependent variables for Report 5 | | | | |
|---|---|---|---|---|---|
| | Belief | Share Email | Share Facebook | Share Twitter | Share Whatsapp |
| Treat.: Congruence | 0.26** | 0.02 | 0.05* | 0.08 | 0.04* |
| | (0.08) | (0.02) | (0.03) | (0.05) | (0.02) |
| Constant | 3.57*** | 0.06*** | 0.08*** | 0.09* | 0.07*** |
| | (0.06) | (0.01) | (0.02) | (0.04) | (0.01) |
| Observations | 1,353 | 941 | 585 | 183 | 765 |
| $R^2$ | 0.01 | 0.001 | 0.01 | 0.01 | 0.01 |

*Note:* *p<0.05; **p<0.01; ***p<0.001;
Belief measured on 7-point scale (0-6) and sharing intention as a binary choice (0-1).

Table A15: Linear regression: Source, congruence and interaction (alternative implementation of congruence treatment)

| | Dependent variables for Report 5 | | | | |
|---|---|---|---|---|---|
| | Belief | Share Email | Share Facebook | Share Twitter | Share Whatsapp |
| Treat.: Source | 0.89*** | −0.004 | −0.01 | −0.03 | 0.03 |
| | (0.11) | (0.02) | (0.04) | (0.07) | (0.03) |
| Treat.: Congruence | 0.49*** | −0.01 | −0.005 | 0.01 | 0.05 |
| | (0.11) | (0.02) | (0.04) | (0.07) | (0.03) |
| Treat.: Source*Congruence | −0.50** | 0.06 | 0.11* | 0.14 | −0.02 |
| | (0.16) | (0.03) | (0.05) | (0.10) | (0.04) |
| Constant | 3.14*** | 0.06*** | 0.08** | 0.11* | 0.05* |
| | (0.08) | (0.02) | (0.03) | (0.05) | (0.02) |
| Observations | 1,353 | 941 | 585 | 183 | 765 |
| $R^2$ | 0.06 | 0.01 | 0.02 | 0.03 | 0.01 |

*Note:* *p<0.05; **p<0.01; ***p<0.001;
Belief measured on 7-point scale (0-6) and sharing intention as a binary choice (0-1).

### A.10.2 Subsample: Frequent sharers

Figure A7 displays the prevalence of accounts across different platforms in our sample. As was to be expected almost everyone has an email account, followed by Whatsapp, Facebook and Twitter.

Figure A7: Prevalence of accounts across platforms

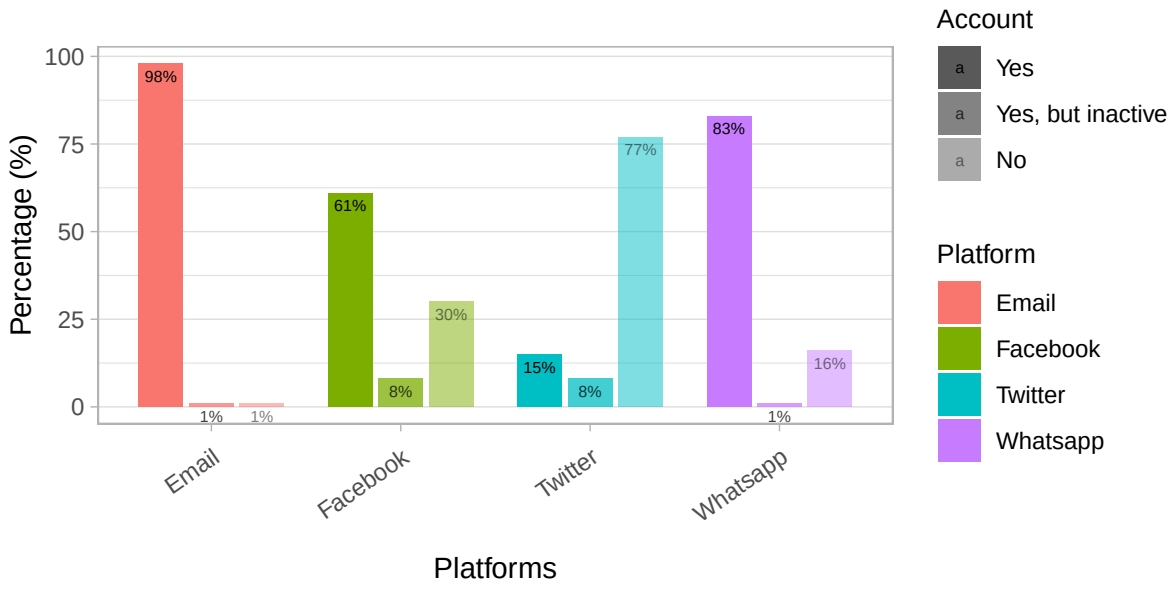
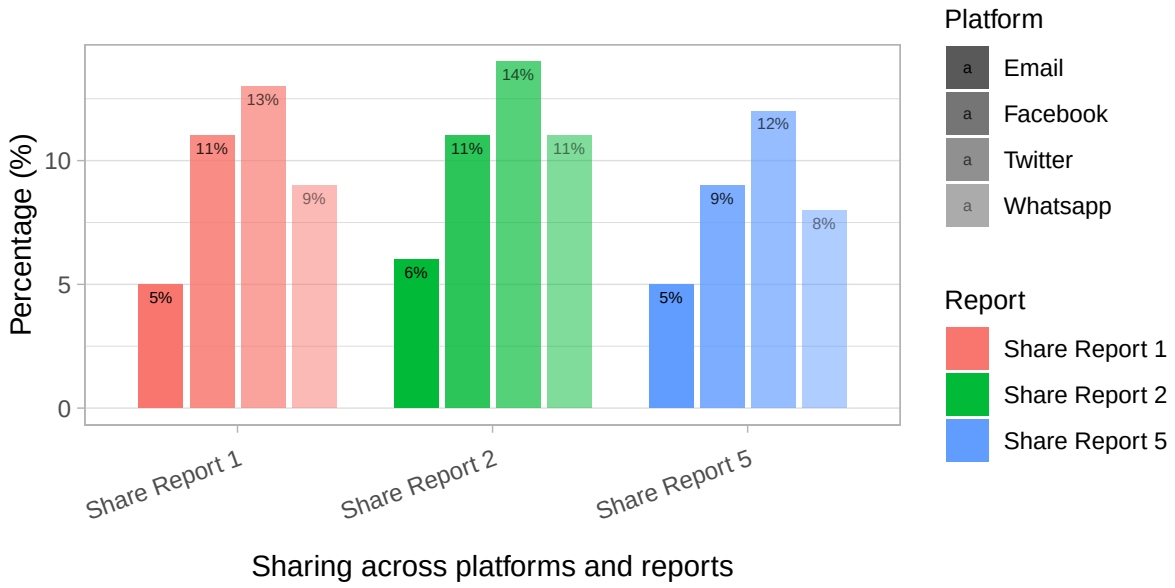



Figure A8 displays sharing propensity for the different reports across platforms. Sharing intention is only measured for subjects who had affirmed having an account on that platform.

The graph illustrates the intention to share is highest on Facebook, followed by Twitter and Whatsapp.

Figure A8: Sharing propensity across reports and platforms




Before the experimental stage, we measured people's general tendency to share. In the following, we repeat our analyses for the sharing outcomes on a subsample of frequent sharers. We define these subjects as those who indicated to share "a few times a year" or more. Figure A9 visualizes the reported sharing frequency across platforms. Since it differs across the four services four individual subjects, the following models deal with different subsamples each (e.g., regression on Facebook sharing includes only those subjects who frequently share via Facebook). Tables A16 through A17 do not reveal any patterns different from the main analyses.

Table A16: Linear regression: Source

| | Dependent variables for Report 1 | | | |
|---|---|---|---|---|
| | Share Email | Share Facebook | Share Twitter | Share Whatsapp |
| Treat.: Source | 0.04 | 0.09** | 0.08 | −0.07 |
| | (0.03) | (0.03) | (0.06) | (0.07) |
| Constant | 0.09*** | 0.15*** | 0.14*** | 0.24*** |
| | (0.02) | (0.02) | (0.04) | (0.05) |
| Observations | 637 | 567 | 170 | 127 |
| $R^2$ | 0.003 | 0.01 | 0.01 | 0.01 |

*Note:* *p<0.05; **p<0.01; ***p<0.001; Data: subsample of frequent sharers; Belief measured on 7-point scale (0-6) and sharing intention as a binary choice (0-1).

Figure A9: Sharing frequency across platforms

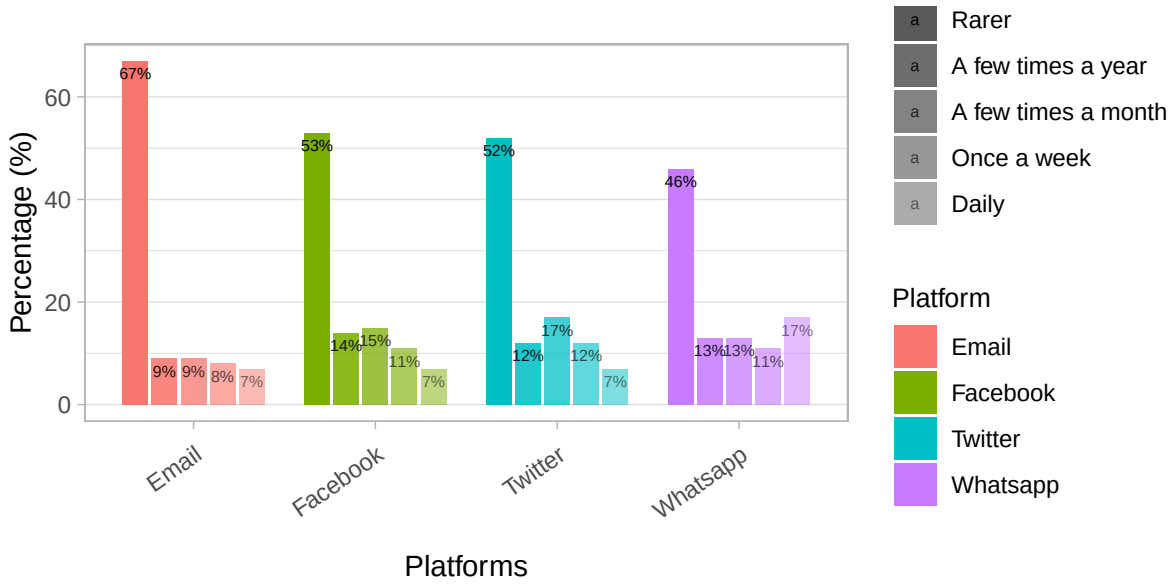



Table A17: Linear regression: Congruence

| | Dependent variables for Report 5 | | | |
|---|---|---|---|---|
| | Share Email | Share Facebook | Share Twitter | Share Whatsapp |
| Treat.: Congruence | −0.01 | 0.09* | 0.10 | 0.10 |
| | (0.03) | (0.04) | (0.06) | (0.07) |
| Constant | 0.12*** | 0.12*** | 0.12** | 0.12* |
| | (0.02) | (0.03) | (0.04) | (0.05) |
| Observations | 472 | 420 | 165 | 123 |
| $R^2$ | 0.0005 | 0.02 | 0.02 | 0.02 |

*Note:* *p<0.05; **p<0.01; ***p<0.001; Data: subsample of frequent sharers; Belief measured on 7-point scale (0-6) and sharing intention as a binary choice (0-1).

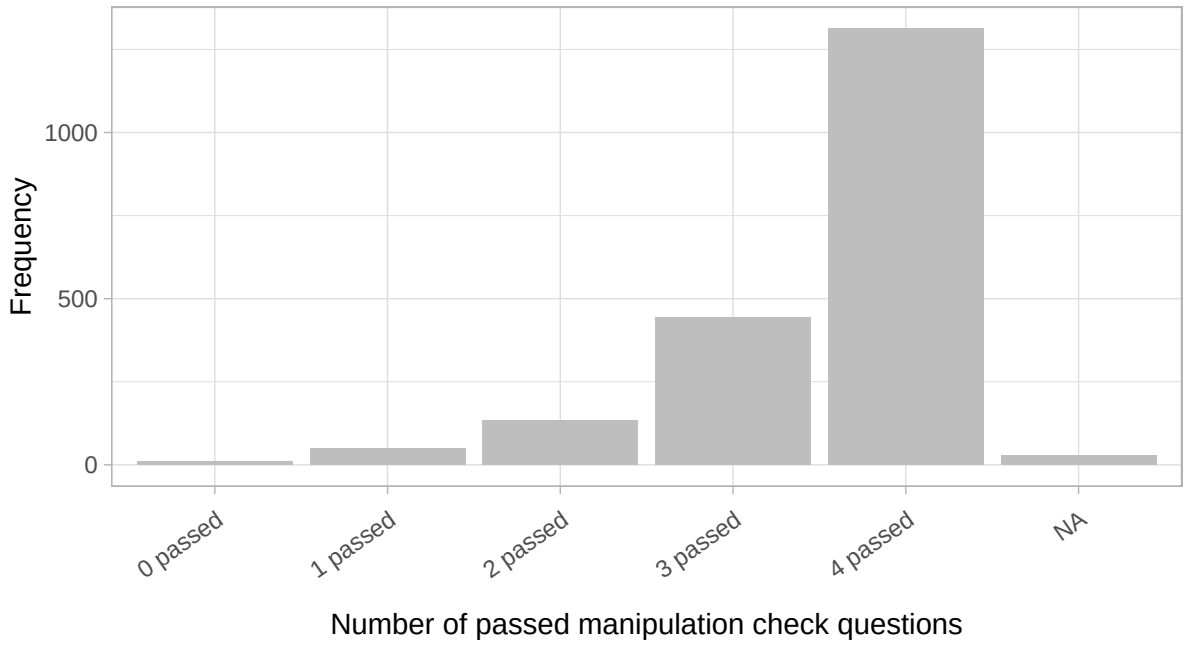
### A.10.3 Subsample: Manipulation check passers

We included tests to explore whether respondents received the manipulations as intended. Although some effects could materialize without the subjects being conscious of the manipulated variable, we would argue that a conscious perception provides the more plausible causal mechanism (see discussion in Mutz and Pemantle 2015, 193–97). An effect of the source treatment is most plausible if respondents are aware of the source. To check respondents' awareness of the source, we asked them after the experimental stage which source the reports had come from. A large majority of respondents (94.3%) remembered the source correctly. The congruence treatment requires that respondents are aware of the implications of the report they read. Here, we checked whether they really read the reports by asking them about aspects of the stories after Report 2–4.

Respondents mostly paid attention to the reports. Figure A10 visualizes the distribution of correct answers to our manipulation check questions. The manipulation check for Re-

port 2 yielded 80.5% correct answers; for Report 3 92.2% correct answers; for Report 4: 85.6% correct answers. The manipulation check for the source yielded 94.3% correct answers. Nonetheless, we decided to re-estimate all our models keeping only those 1313 respondents who passed all the manipulation checks.

Figure A10: Distribution of manipulation check performance




Tables A18, A19 and A20 and Figure A11 show re-estimations of the main results after excluding individuals that did not pass all manipulation checks. Results remain substantially unchanged, and in some cases become even stronger, for example comparing Table A19 with the original Table A12.

Table A18: Linear regression: Source

| | Dependent variables for Report 1 | | | | |
|---|---|---|---|---|---|
| | Belief | Share Email | Share Facebook | Share Twitter | Share Whatsapp |
| Treat.: Source | 0.74*** | 0.02* | 0.06** | 0.05 | 0.04* |
| | (0.09) | (0.01) | (0.02) | (0.04) | (0.02) |
| Constant | 3.20*** | 0.03*** | 0.06*** | 0.08** | 0.06*** |
| | (0.06) | (0.01) | (0.01) | (0.03) | (0.01) |
| Observations | 1,313 | 1,291 | 783 | 207 | 1,098 |
| $R^2$ | 0.05 | 0.004 | 0.01 | 0.01 | 0.005 |

*Note:* *p<0.05; **p<0.01; ***p<0.001; Data: subsample of those passing all manipulation checks; Belief measured on 7-point scale (0-6) and sharing intention as a binary choice (0-1).

Table A19: Linear regression: Congruence

| | Dependent variables for Report 5 | | | | |
|---|---|---|---|---|---|
| | Belief | Share Email | Share Facebook | Share Twitter | Share Whatsapp |
| Treat.: Congruence | 0.25*** | 0.02 | 0.04* | 0.06 | 0.04* |
| | (0.07) | (0.01) | (0.02) | (0.04) | (0.02) |
| Constant | 3.72*** | 0.03*** | 0.05** | 0.06* | 0.05*** |
| | (0.05) | (0.01) | (0.02) | (0.03) | (0.01) |
| Observations | 1,313 | 958 | 579 | 195 | 781 |
| $R^2$ | 0.01 | 0.003 | 0.01 | 0.01 | 0.01 |

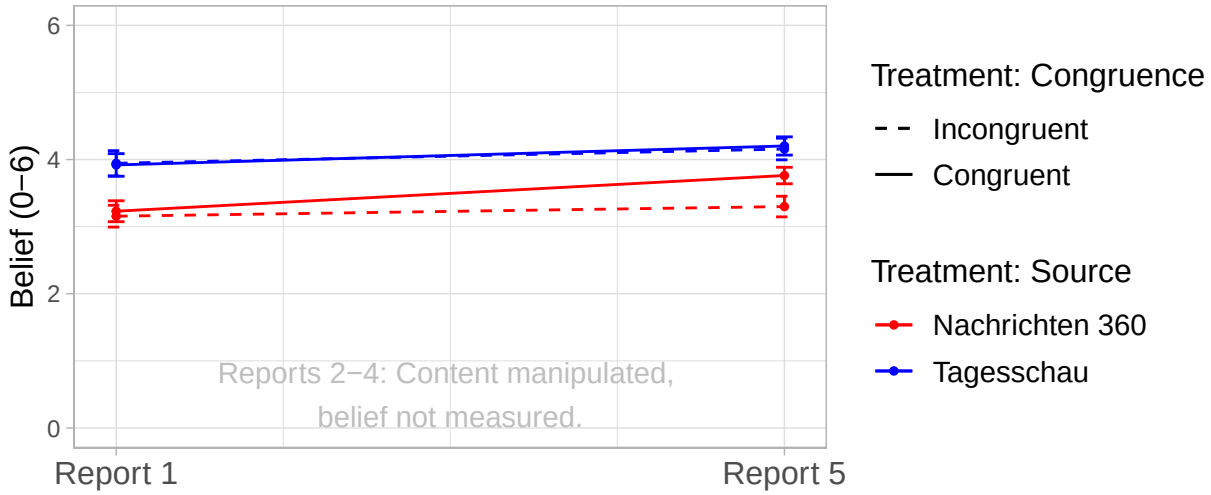
*Note:* *p<0.05; **p<0.01; ***p<0.001; Data: subsample of those passing all manipulation checks; Belief measured on 7-point scale (0-6) and sharing intention as a binary choice (0-1).

Table A20: Linear regression: Source, congruence and interaction

| | Dependent variables for Report 5 | | | | |
|---|---|---|---|---|---|
| | Belief | Share Email | Share Facebook | Share Twitter | Share Whatsapp |
| Treat.: Source | 0.86*** | 0.003 | 0.03 | 0.01 | 0.03 |
| | (0.11) | (0.02) | (0.03) | (0.06) | (0.03) |
| Treat.: Congruence | 0.46*** | 0.01 | 0.04 | 0.05 | 0.07* |
| | (0.10) | (0.02) | (0.03) | (0.06) | (0.03) |
| Treat.: Source*Congruence | −0.42** | 0.03 | 0.01 | 0.03 | −0.06 |
| | (0.15) | (0.03) | (0.04) | (0.09) | (0.04) |
| Constant | 3.30*** | 0.03* | 0.04 | 0.06 | 0.04* |
| | (0.07) | (0.01) | (0.02) | (0.04) | (0.02) |
| Observations | 1,313 | 958 | 579 | 195 | 781 |
| $R^2$ | 0.07 | 0.01 | 0.01 | 0.01 | 0.01 |

*Note:* *p<0.05; **p<0.01; ***p<0.001; Data: subsample of those passing all manipulation checks; Belief measured on 7-point scale (0-6) and sharing intention as a binary choice (0-1).

Figure A11: Source credibility development




### A.10.4 Subsample: Always focused

Being asked about the truth of factual information, respondents might be tempted to take advantage of the unsupervised situation to verify reports (cf. Jensen and Thomsen 2014). We therefore adapted a Java Script developed by Diedenhofen and Musch (2017) to track whether and at what points people left the questionnaire. For each questionnaire page, our script stored a time stamp for each "defocus" and "refocus" event. In addition, when respondents left and returned to the questionnaire, a popup appeared asking them to not leave the questionnaire again. Over the whole questionnaire, 62.12% of respondents never left the questionnaire, 5.35% left it more than three times. Of those who left the questionnaire at least once, the median time spent away was 24.09 seconds. In Tables A21, A22 and A23 and Figure A12, we present robustness tests with only those subjects who did not leave the questionnaire. It shows that the source-congruence interaction becomes insignificant, which is potentially due to the reduced sample size.

Table A21: Linear regression: Source

| | Dependent variables for Report 1 | | | | |
|---|---|---|---|---|---|
| | Belief | Share Email | Share Facebook | Share Twitter | Share Whatsapp |
| Treat.: Source | 0.62*** | 0.01 | 0.05 | 0.04 | 0.02 |
| | (0.09) | (0.01) | (0.02) | (0.05) | (0.02) |
| Constant | 3.10*** | 0.05*** | 0.09*** | 0.08* | 0.07*** |
| | (0.06) | (0.01) | (0.02) | (0.04) | (0.01) |
| Observations | 1,229 | 1,190 | 708 | 153 | 1,008 |
| $R^2$ | 0.04 | 0.0002 | 0.01 | 0.004 | 0.001 |

*Note:* *p<0.05; **p<0.01; ***p<0.001; Data: Subsample of respondents who always stayed focused; Belief measured on 7-point scale (0-6) and sharing intention as a binary choice (0-1).

Table A22: Linear regression: Congruence

| | Dependent variables for Report 5 | | | | |
|---|---|---|---|---|---|
| | Belief | Share Email | Share Facebook | Share Twitter | Share Whatsapp |
| Treat.: Congruence | 0.20* | 0.004 | 0.08** | 0.09 | 0.02 |
| | (0.08) | (0.02) | (0.03) | (0.05) | (0.02) |
| Constant | 3.59*** | 0.05*** | 0.06** | 0.06 | 0.07*** |
| | (0.06) | (0.01) | (0.02) | (0.04) | (0.02) |
| Observations | 1,228 | 798 | 468 | 145 | 635 |
| $R^2$ | 0.01 | 0.0001 | 0.02 | 0.02 | 0.002 |

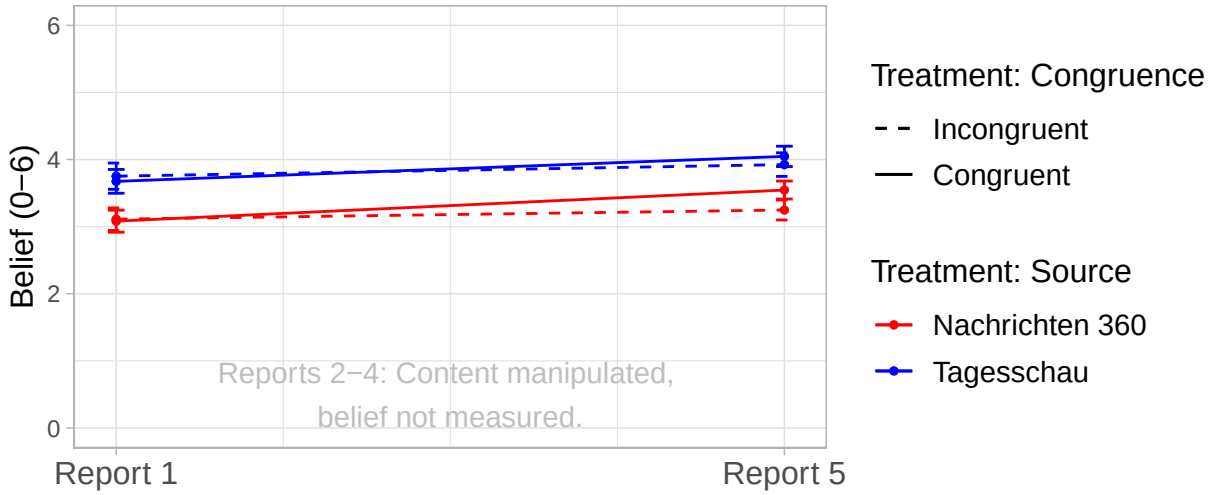
*Note:* *p<0.05; **p<0.01; ***p<0.001; Data: Subsample of respondents who always stayed focused; Belief measured on 7-point scale (0-6) and sharing intention as a binary choice (0-1).

Table A23: Linear regression: Source, congruence and interaction

| | Dependent variables for Report 5 | | | | |
|---|---|---|---|---|---|
| | Belief | Share Email | Share Facebook | Share Twitter | Share Whatsapp |
| Treat.: Source | 0.68*** | 0.01 | 0.002 | 0.06 | 0.03 |
| | (0.11) | (0.02) | (0.04) | (0.08) | (0.03) |
| Treat.: Congruence | 0.30** | 0.002 | 0.05 | 0.13 | 0.03 |
| | (0.11) | (0.02) | (0.04) | (0.08) | (0.03) |
| Treat.: Source*Congruence | −0.18 | 0.004 | 0.06 | −0.09 | −0.01 |
| | (0.16) | (0.03) | (0.06) | (0.10) | (0.04) |
| Constant | 3.25*** | 0.05** | 0.06* | 0.03 | 0.05* |
| | (0.08) | (0.02) | (0.03) | (0.05) | (0.02) |
| Observations | 1,228 | 798 | 468 | 145 | 635 |
| $R^2$ | 0.05 | 0.001 | 0.02 | 0.03 | 0.004 |

*Note:* *p<0.05; **p<0.01; ***p<0.001; Data: Subsample of respondents who always stayed focused; Belief measured on 7-point scale (0-6) and sharing intention as a binary choice (0-1).

Figure A12: Source credibility development




### A.10.5 Channel: Facebook vs. website treatment design

The low willingness to share, especially via email, Whatsapp and Twitter, might be due to the fact that we partly presented the stimuli as Facebook posts. We can address this concern by examining the third treatment dimension of the experiment (results for which we report elsewhere). We randomly varied whether respondents were exposed to the stimuli as screenshots of a Facebook post or or of a news site (cf. Figures A16 and A17 for the respective designs). As shown in Table A24, we do not find that this treatment affects the sharing intentions across non-Facebook channels. This leads us to believe that the low willingness to share is not an artefact of our design.

Table A24: Linear regression: Channel treatment

| | Dependent variables for Report 1 | | | | |
|---|---|---|---|---|---|
| | Belief | Share Email | Share Facebook | Share Twitter | Share Whatsapp |
| Treat.: Channel | 0.10 | 0.02 | −0.01 | −0.01 | 0.02 |
| | (0.07) | (0.01) | (0.02) | (0.04) | (0.01) |
| Constant | 3.41*** | 0.05*** | 0.12*** | 0.13*** | 0.08*** |
| | (0.05) | (0.01) | (0.01) | (0.03) | (0.01) |
| Observations | 1,979 | 1,930 | 1,210 | 292 | 1,639 |
| $R^2$ | 0.001 | 0.002 | 0.001 | 0.0002 | 0.001 |

*Note:* *p<0.05; **p<0.01; ***p<0.001; Data: Subsample of respondents who were in the website design treatment; Belief measured on 7-point scale (0-6) and sharing intention as a binary choice (0-1).

## A.11 Ethical considerations and open feedback

We were seeking deception-free ways to study our hypotheses, but minor deception was necessary to test our hypotheses in the cleanest way. In the final design, we presented participants with constructed news sources as well as constructed news reports (for a similar approach, see Baum and Groeling 2009; Kuru, Pasek, and Traugott 2017; Jun, Meng, and Johar 2017). To mitigate potential negative effects of deception, we resorted to several strategies. First, we debriefed subjects in detail at the end of the survey: We informed participants about the objective of our experiment and clarified that *Nachrichten 360* was a made-up source. We also clarified that the factual claims and conclusions of three reports were manipulated, and briefed participants with true facts about the respective issues. We also emphasized that "tagesschau.de referred only to [these] facts" in order not to taint the reputation of the Tagesschau. Second, we sent consenting respondents an email with more substantive information related to the news reports a few weeks after the study was finished.

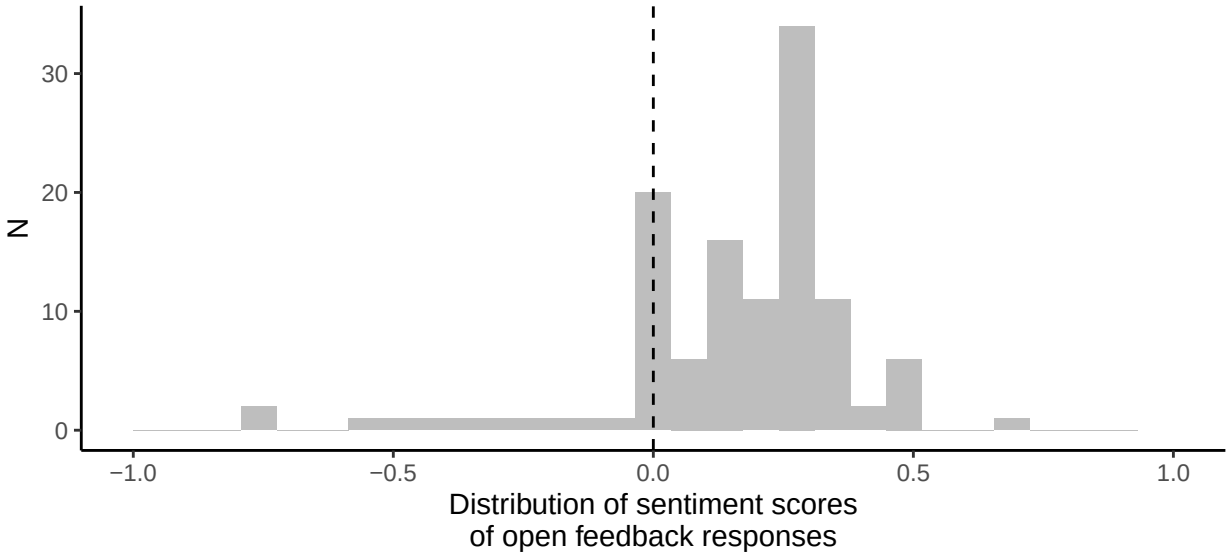
Finally, we provided participants with an open-ended feedback box after the debriefing. A qualitative review of the feedback revealed that the survey experience was mainly positive, and there were less than five participants with complaints. None of the participants suggested that the study (because of the contained deception) should not have been run. In the following, we also present some quantitative analysis of the open feedback. 8.26 percent of respondents provided written feedback. Figure A13 provides a simple, translated wordcloud (stopwords were omitted) that indicates an overall positive sentiment.

Figure A13: Wordcloud of open-ended feedback

Subsequently, we used a German sentiment dictionary provided by Remus, Quasthoff, and Heyer (2010) to estimate sentiment scores for the responses. The corresponding dictionary contains around 34,964 positive and negative basic forms, corresponding to around 16.000 positive and 18.000 negative word forms. The dictionary comprises adjectives and adverbs,

but also nouns and verbs that carry sentiment. Figure A14 displays the distribution of sentiment scores for the feedback responses and very few responses get negative scores.

Figure A14: Distribution of sentiment scores



## A.12 Some screenshots from the survey

Figure A15 provides an example of a news report subjects were asked to read: The screenshot presented as taken from the original website or Facebook post on top, the text of the report below. Figures A16 and A17 display ($2 \times 2 \times 2$) screenshots for one example (Report 2) across the three treatment dimensions source, channel and content, only two of which we discuss in the present paper. Note that screenshots were further adapted for use on mobile devices (not shown here).

Figure A15: Example of report presentation

Auf der Internetseite der *Tagesschau* war folgender Bericht zu lesen. Oben sehen Sie ein Bildschirmfoto der Artikelseite und darunter den Text des Artikels.

---

**Weniger Anträge als erwartet**

Flüchtlinge mit eingeschränktem Schutz wollen viel weniger Familienangehörige nach Deutschland nachziehen lassen als vielfach prognostiziert. Von Anfang August bis zum 5. November 2018 sind lediglich 786 Visa für den Familiennachzug zu subsidiär Schutzberechtigten erteilt worden. Das geht aus einem Vermerk der Bundesregierung hervor, der *tagesschau.de* vorliegt. Von August bis Jahresende sind maximal 5000 Visa möglich.

Die Frage des Familiennachzugs zu den etwa 300.000 Flüchtlingen, die mit sogenanntem subsidiären Schutzstatus in Deutschland leben, hatte zu Jahresbeginn die Koalitionsverhandlungen zwischen Union und SPD schwer belastet. Politiker hatten gewarnt, dass bis zu 300.000 Angehörige nach Deutschland kommen wollten, sollte der damals geltende Stopp des Familiennachzugs auslaufen.

Die Koalition einigte sich auf den Kompromiss, monatlich bis zu 1000 Visa für enge Angehörige - also Ehepartner, minderjährige Kinder oder Eltern hier lebender Minderjähriger - zu vergeben. Doch diese Zahl wird auch nach Einschätzung des Innenministeriums kaum erreicht werden, wie *tagesschau.de* aus Ministeriumskreisen erfahren hat.

---

Auf einer Skala von 0 bis 6, glauben Sie, dass die Informationen in dem Text von *tagesschau.de* der Wahrheit entsprechen?

0 bedeutet gar nicht, 6 bedeutet voll und ganz.

| 0 - Gar nicht | 1 | 2 | 3 | 4 | 5 | 6 - Voll und ganz |
|---|---|---|---|---|---|---|

>>

Figure A16: Nachrichten 360: Example of screenshots used in the treatments

Figure A17: Tagesschau: Example of screenshots used in the treatments

## A.13 Treatment heterogeneity

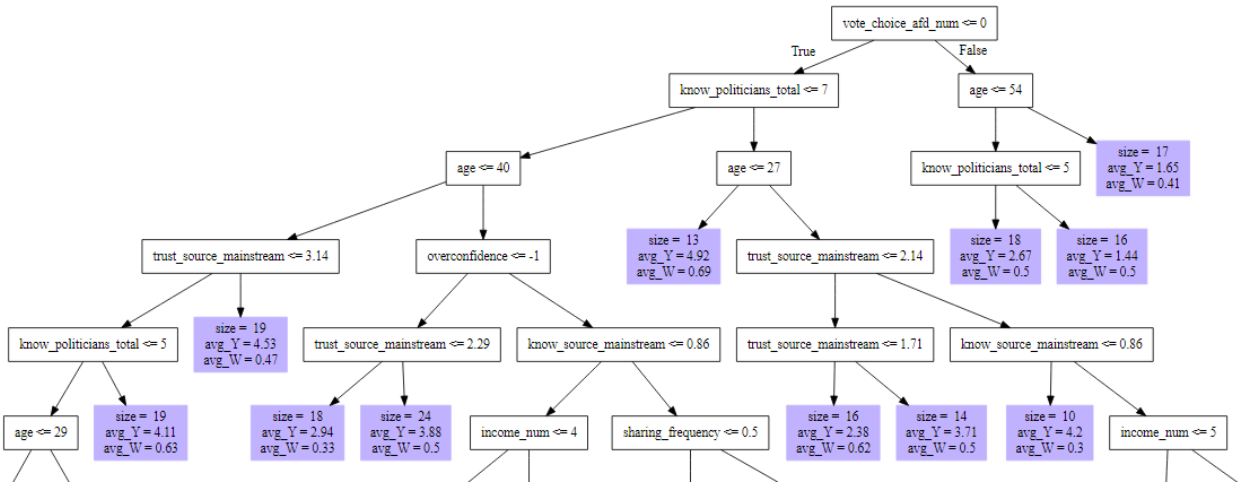
### A.13.1 A quick overview of causal forests

To estimate treatment heterogeneity we rely on the "causal forest" method developed by Athey and Imbens (2016; also Wager and Athey 2018; Athey, Tibshirani, and Wager 2019). The method goes back to classification and regression forest algorithms (Breiman 2001). For an extensive overview of the underlying procedures of causal forests we refer the reader to the website corresponding to the grf R package (Tibshirani, Wager, and Athey 2020).

A causal forest is composed of a group of *trees*. For each tree, a random subset of the data is sampled. In a next step, this subset is divided into two disjoint sets, the first for building the tree, and the second for repopulating the tree. This step is required by the condition of "honesty". To build a tree, the algorithm seeks to recursively split the data. This is done by first selecting a random subset of variables as candidates for splitting. Then, for each of these variables, all of its possible values and the resulting two *child nodes* are considered. The goodness of a split depends on how much it increases treatment heterogeneity between the two child nodes. Certain splits are not considered, because the resulting child nodes would be too different in size or too small to compare treatment groups within them. All observations with values for the split variable that are less than or equal to the split value are placed in a new left child node, and all examples with greater values are placed in a right child node. If a node cannot be split further, it forms a *leaf* of the final tree.

Now the "repopulation" data from the honesty split is used to populate the tree's leaf nodes: each new observation is "pushed down" the tree, and added to the leaf in which it falls. The honesty procedure ensures avoiding the problem of adaptive estimation, which describes a situation in which spurious extreme values of the outcome will determine splits and bias estimation (cf. Athey and Imbens 2016, 7355). Figure A18 visualizes a tree from the forest on which Figure 7 is based (heterogeneity of the source effect on belief). The diagram shows both the variables on which the data was split, as well as the values at which splits occured. Purple boxes represent the leaves, after which no further splits occur.

Figure A18: Part of exemplary tree estimated on the basis of the present data




To grow a forest, this procedure is repeated many times, each time randomly re-sampling from the data. Following Athey and Wager (2019), one first grows a pilot tree using all covariates in the data and then check each variable's "importance": The importance of a variable is calculated as a simple weighted sum of how many times that variable was split on at each depth in the forest. In a second step, a forest is regrown using only those covariates that had above average importance. Based on this forest, the ultimate objective is to estimate a treatment effect for each individual observation. This is done the following way: According to the "out-of-bag" procedure, for each observation, all trees that did not use this observation (due to random sampling of observations) are identified. In these trees, the observation is "pushed down" into the appropriate leaf. Next, a list of neighbouring observations is created, weighted by how many times they fell into the same leaf as the observation of interest. The predicted treatment effect for the observation is calculated using the outcomes and treatment status of neighboring observations.

Apart from assessing the relevance of covariates for these predictions, several approaches allow to test whether the heterogeneity found is real (cf. Athey and Wager 2019). As a first omnibus test of treatment heterogeneity, one can group observations according to whether their predicted treatment effects are below or above the median prediction and estimate the average for each group, and then calculate the standard error of this difference from the standard errors of the two group estimates. As Athey and Wager (2019, 7) point out, this procedure is somewhat heuristic but gives qualitative insights about the strength of heterogeneity. A second omnibus test of heterogeneity is motivated by the "best linear predictor" method that tries to fit the individual treatment effects as a linear function of the causal forest estimates. The coefficients of this model provide evidence whether or not the causal forest succeeded in finding heterogeneity.

These omnibus tests inform about the presence of heterogeneity in general but do not say anything about significance of individual variables. Apart from visual inspection of individual treatment effect predictions plotted against covariates, a method to test whether covariates

used to grow the final tree significantly predict heterogeneity, is the "best linear projection" method of the `grf` package.

### A.13.2 Treatment effects on belief

Table A25 contains variable importance for the covariates used in the two final causal trees for source and congruence treatment effects on news belief. Table A26 shows results for the second omnibus test described in the paper. Table A27 depicts the results of the best linear projections of the two treatment effects.

Table A25: Covariate importance (source and congruence effects on belief)

| Treatment | Outcome | Covariate | Importance |
|---|---|---|---|
| Source treatment | Belief Report 1 | Mainstr. media trust | 0.366 |
| Source treatment | Belief Report 1 | Vote choice AfD | 0.124 |
| Source treatment | Belief Report 1 | Age | 0.117 |
| Source treatment | Belief Report 1 | Political knowledge | 0.107 |
| Source treatment | Belief Report 1 | Income | 0.082 |
| Source treatment | Belief Report 1 | Mainstr. media knowl. | 0.082 |
| Source treatment | Belief Report 1 | Overconfidence | 0.067 |
| Source treatment | Belief Report 1 | Sharing frequency | 0.056 |
| Congruence treatment | Belief Report 5 | Mainstream media trust | 0.188 |
| Congruence treatment | Belief Report 5 | Age | 0.184 |
| Congruence treatment | Belief Report 5 | Vote choice AfD | 0.163 |
| Congruence treatment | Belief Report 5 | Income | 0.137 |
| Congruence treatment | Belief Report 5 | Political knowledge | 0.115 |
| Congruence treatment | Belief Report 5 | Education | 0.079 |
| Congruence treatment | Belief Report 5 | Sharing frequency | 0.071 |
| Congruence treatment | Belief Report 5 | Overconfidence | 0.063 |

Table A26: Best linear predictor test (source and congruence effects on belief)

| | *Dependent variable:* | |
|---|---|---|
| Mean forest prediction | $1.00^{***}$ | $1.00^{***}$ |
| | (0.10) | (0.23) |
| Differential forest prediction | $1.21^{***}$ | $0.95^{*}$ |
| | (0.24) | (0.57) |
| *Note:* | *p<0.05; **p<0.01; ***p<0.001. | |

### A.13.3 Treatment effects on sharing

Below we discuss treatment heterogeneity regarding sharing intentions. As we described in Section 4 we only found significant source and congruence effects on Facebook sharing

Table A27: Best linear projection of predictions (source and congruence effects on belief)

| | *Dependent variable:* | |
|---|---|---|
| | Belief | |
| | Source effect predictions | Congruence effect predictions |
| Mainstream source trust | 0.27** | 0.21 |
| | (0.11) | (0.15) |
| Vote choice AfD | −0.67** | 1.05** |
| | (0.24) | (0.32) |
| Age | −0.01 | −0.01 |
| | (0.004) | (0.01) |
| Political knowledge | 0.06* | −0.03 |
| | (0.03) | (0.04) |
| Education | | −0.10 |
| | | (0.06) |
| Income | 0.02 | −0.04 |
| | (0.02) | (0.03) |
| Media knowledge | 0.55 | |
| | (0.32) | |
| Overconfidence | 0.01 | 0.06 |
| | (0.04) | (0.06) |
| Sharing Frequency | −0.03 | −0.06 |
| | (0.06) | (0.07) |
| Constant | −0.60 | 0.84 |
| | (0.44) | (0.54) |
| *Note:* | | *p<0.05; **p<0.01; ***p<0.001. |

intentions, but not for the other platforms. To explore heterogeneity on sharing outcomes, we pursue the same steps as for the belief outcome. Four each of the four sharing outcomes, and each of the two treatments, we grow a causal forest with those covariates only that had above average importance in a pilot forest. This results in eight forests. We start with two omnibus tests that generally gauge whether heterogeneity is present or not. Table A28 depicts the results for the first omnibus test comparing regions of high and low treatment effect predictions. For each effect, the table displays the difference between the average predictions of the two regions, as well as a confidence interval for this difference. The test indicates that there is no treatment heterogeneity.

Table A28: Comparing prediction regions (source and congruence effect on sharing)

| Treatment | Outcome | Difference estimate | CI 95 low | CI 95 high |
|---|---|---|---|---|
| Treatment source | Sharing Rep. 1 per email | 0.015 | -0.030 | 0.060 |
| Treatment source | Sharing Rep. 1 per Facebook | -0.074 | -0.150 | 0.002 |
| Treatment source | Sharing Rep. 1 per Twitter | 0.101 | -0.065 | 0.267 |
| Treatment source | Sharing Rep. 1 per Whatsapp | 0.049 | -0.009 | 0.107 |
| Treatment congruence | Sharing Rep. 5 per email | 0.007 | -0.045 | 0.059 |
| Treatment congruence | Sharing Rep. 5 per Facebook | 0.051 | -0.032 | 0.134 |
| Treatment congruence | Sharing Rep. 5 per Twitter | -0.147 | -0.315 | 0.021 |
| Treatment congruence | Sharing Rep. 5 per Whatsapp | -0.02 | -0.086 | 0.046 |

*Note:*
* 95% confidence interval for estimate does not cover 0.

Table A29 shows results for the second omnibus test, which uses the best linear predictor method (cf. Section A.13.1). A positive and statistically significant coefficient for the differential forest prediction could be indicative of relevant heterogeneity. Again this is not the case for any of the sharing outcomes. As a consequence, we do not pursue the exploration of treatment heterogeneity for our sharing outcomes any further.

Table A29: Best linear predictor tests (source and congruence effects on sharing)

| | Outcome: Sharing via | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | Email | Fb | Twitter | Whatsapp | Email | Fb | Twitter | Whatsapp |
| Mean forest prediction | 0.99** | 1.00*** | 0.97 | 1.00** | 1.01 | 1.00*** | 1.02** | 0.99* |
| | (0.47) | (0.34) | (0.80) | (0.48) | (1.86) | (0.42) | (0.60) | (0.63) |
| Differential forest prediction | 0.24 | −4.65 | 0.79 | 0.34 | 0.51 | 0.75 | −6.35 | −0.61 |
| | (0.54) | (1.15) | (0.82) | (0.55) | (0.55) | (0.85) | (2.28) | (0.75) |

*Note:* **p<0.05; **p<0.01; ***p<0.001.

## A.14 Saliency of topics

To assess how salient the topics our news reports were before, during and after our data collection period we rely on Google Trends data. Mellon (2013) discusses the use of Google Trends data to measure issue saliency. While Google does not provide absolute numbers for searches, the respective API returns the relative prevalence of a search term as compared to others over time. Figure A19 and A20 provide different combinations of search terms and time periods. The y-axis always shows prevalence of searches relative to each other during the depicted time period and in the territory of Germany. The most searched term on day X is used as the maximum (= 100), i.e., to anchor the scale. The data has been aggregated up to week level. The x-axis displays the corresponding weeks.

Figure A19 displays Google trends for the search terms Einwanderung“,”Flüchtlinge“,”Asyl” and “Migration”. Essentially, Figure A19 shows that the salience of the issue areas we investigate is relatively stable across the months that include our data collection. Figure A20 extends the time span. First, we can see that the refugee issue was highly salient during 2015/2016 as compared to 2020. We added the events that are potentially responsible for the surge in searches namely the onset of the refugee crisis in Germany as well as the events around New Year in Cologne (Hewitt 2016). Second, we added another, completely unrelated salient but time-bound event namely the death of the famous German Designer “Lagerfeld” who died on February 19, 2019 which resulted in a massive spike of searches. The spike “Lagerfeld” generates as well as the higher saliency in 2015/2016 in Figure A20 further assures us that saliency regarding the issues contained in our news reports was relatively stable.

Figure A19: Trends in google searches

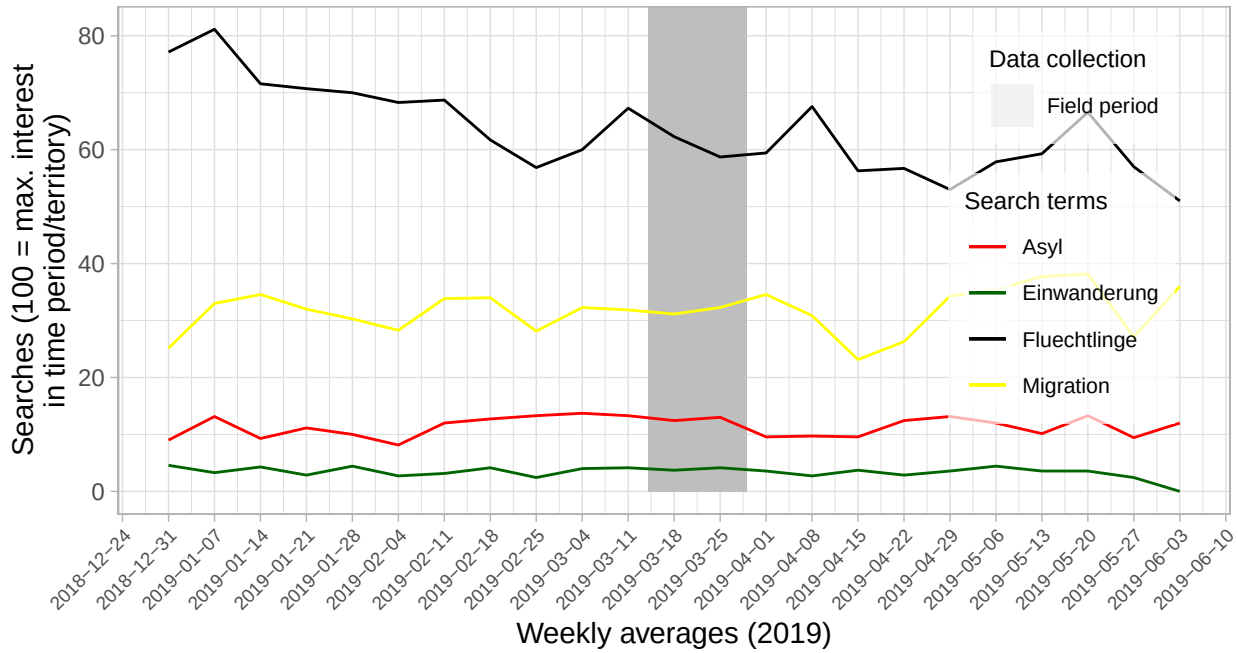
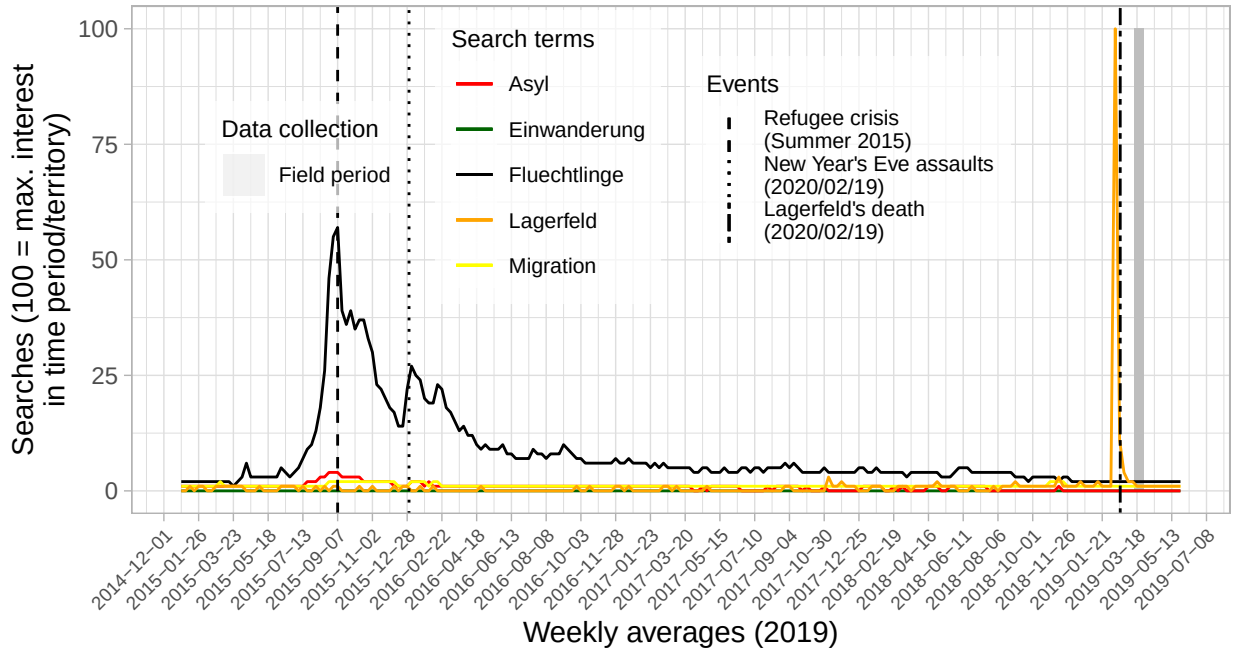


Figure A20: Trends in google searches




## A.15 R session info

```
## R version 4.0.0 (2020-04-24)
## Platform: x86_64-w64-mingw32/x64 (64-bit)
## Running under: Windows 10 x64 (build 17763)
##
## Matrix products: default
##
## attached base packages:
## [1] stats     graphics  grDevices utils     datasets  methods   base
##
## other attached packages:
##  [1] xtable_1.8-4       ggwordcloud_0.5.0  tidytext_0.2.4     wordcloud_2.6
##  [5] RColorBrewer_1.1-2 SnowballC_0.7.0    tm_0.7-7           NLP_0.2-0
##  [9] qwraps2_0.4.2      DiagrammeRsvg_0.1  ggnewscale_0.4.1   lubridate_1.7.8
## [13] gtrendsR_1.4.6     stargazer_5.2.2    ggcorrplot_0.1.3   kableExtra_1.1.0
## [17] gridExtra_2.3      grf_1.2.0          ggpubr_0.3.0       broom_0.5.6
## [21] magrittr_1.5       forcats_0.5.0      stringr_1.4.0      dplyr_1.0.0
## [25] purrr_0.3.4        readr_1.3.1        tidyr_1.0.3        tibble_3.0.3
## [29] ggplot2_3.3.0      tidyverse_1.3.0    pacman_0.5.1
##
## loaded via a namespace (and not attached):
##  [1] colorspace_1.4-1    ggsignif_0.6.0      ellipsis_0.3.1
```

```
##  [4] rio_0.5.16          htmlTable_1.13.3    base64enc_0.1-3
##  [7] fs_1.4.1            rstudioapi_0.11     farver_2.0.3
## [10] fansi_0.4.1         xml2_1.3.2          splines_4.0.0
## [13] mnormt_1.5-7        knitr_1.29          Formula_1.2-3
## [16] jsonlite_1.7.0      anytime_0.3.7       cluster_2.1.0
## [19] dbplyr_1.4.3        png_0.1-7           compiler_4.0.0
## [22] httr_1.4.1          backports_1.1.6     assertthat_0.2.1
## [25] Matrix_1.2-18       cli_2.0.2           acepack_1.4.1
## [28] htmltools_0.5.0     tools_4.0.0         gtable_0.3.0
## [31] glue_1.4.1          reshape2_1.4.4      V8_3.1.0
## [34] Rcpp_1.0.4.6        slam_0.1-47         carData_3.0-3
## [37] cellranger_1.1.0    vctrs_0.3.1         nlme_3.1-147
## [40] psych_1.9.12.31     lmtest_0.9-37       xfun_0.15
## [43] stopwords_2.0       openxlsx_4.1.5      rvest_0.3.5
## [46] lifecycle_0.2.0     rstatix_0.5.0       zoo_1.8-8
## [49] scales_1.1.1        hms_0.5.3           parallel_4.0.0
## [52] sandwich_2.5-1      yaml_2.2.1          curl_4.3
## [55] rpart_4.1-15        latticeExtra_0.6-29 stringi_1.4.6
## [58] tokenizers_0.2.1    checkmate_2.0.0     zip_2.0.4
## [61] rlang_0.4.6         pkgconfig_2.0.3     evaluate_0.14
## [64] lattice_0.20-41     htmlwidgets_1.5.1   labeling_0.3
## [67] cowplot_1.0.0       tidyselect_1.1.0    plyr_1.8.6
## [70] bookdown_0.19       R6_2.4.1            generics_0.0.2
## [73] Hmisc_4.4-0         DBI_1.1.0           pillar_1.4.4
## [76] haven_2.2.0         foreign_0.8-78      withr_2.2.0
## [79] mgcv_1.8-31         survival_3.1-12     abind_1.4-5
## [82] nnet_7.3-13         janeaustenr_0.1.5   modelr_0.1.8
## [85] crayon_1.3.4        car_3.0-8           rmarkdown_2.3
## [88] usethis_1.6.1       jpeg_0.1-8.1        grid_4.0.0
## [91] readxl_1.3.1        data.table_1.12.8   reprex_0.3.0
## [94] digest_0.6.25       webshot_0.5.2       munsell_0.5.0
## [97] viridisLite_0.3.0
```

## A.16 Pregistration

This study was preregistered before the start of data collection on the 12th of March, 2019 (see https://osf.io/q2ucj). Below we quickly discuss the main differences:

- The preregistration report contains a number of hypotheses that weren't the focus of the present paper. Accordingly, the hypotheses in the preregistration were renamed as follows for our study: H2a, H2b → H1a, H1b; H5a, H5b → H2a, H2b; H6a, H6b → H3a, H3b;
- There are also terminological differences. In the preregistration plan we generally used known/unkown, sometimes existing/non-existing to designate our two sources. In our study we now generally write of real/fake source (taking the researcher's perspective who is aware of their status).

## A.17 References


Athey, Susan, and Guido Imbens. 2016. "Recursive Partitioning for Heterogeneous Causal Effects." *Proceedings of the National Academy of Sciences* 113 (27): 7353–60. https://doi.org/https://doi.org/10.1073/pnas.1510489113.

Athey, Susan, Julie Tibshirani, and Stefan Wager. 2019. "Generalized Random Forests." *Annals of Statistics* 47 (2): 1148–78. https://doi.org/https://doi.org/10.1214/18-AOS1709.

Athey, Susan, and Stefan Wager. 2019. "Estimating Treatment Effects with Causal Forests: An Application." http://arxiv.org/abs/1902.07409.

Baum, Matthew A., and Tim Groeling. 2009. "Partisan Cues and Public Opinion Regarding National Security and War." *Political Behavior* 31 (2): 157–86. http://arxiv.org/abs/arXiv:1011.1669v3.

Breiman, L. 2001. "Random Forests." *Machine Learning* 45: 5–32. https://doi.org/https://doi.org/10.1023/A:1010933404324.

Diedenhofen, Birk, and Jochen Musch. 2017. "Pagefocus: Using Paradata to Detect and Prevent Cheating on Online Achievement Tests." *Behavior Research Methods* 49 (4): 1444–59. https://doi.org/https://doi.org/10.3758/s13428-016-0800-7.

Hewitt, Gavin. 2016. "Cologne's Profound Impact on Europe." *BBC*, January.

Jensen, Carsten, and Jens Peter Frølund Thomsen. 2014. "Self-Reported Cheating in Web Surveys on Political Knowledge." *Quality and Quantity* 48 (6): 3343–54. https://doi.org/https://doi.org/10.1007/s11135-013-9960-z.

Jun, Youjung, Rachel Meng, and Gita Venkataramani Johar. 2017. "Perceived Social Presence Reduces Fact-Checking." *Proceedings of the National Academy of Sciences* 114 (23): 5976–81. https://doi.org/https://doi.org/10.1073/pnas.1700175114.

Kuru, Ozan, Josh Pasek, and Michael W. Traugott. 2017. "Motivated Reasoning in the Perceived Credibility of Public Opinion Polls." *Public Opinion Quarterly* 81 (2): 422–46. https://doi.org/https://doi.org/10.1093/poq/nfx018.

Mellon, Jonathan. 2013. "Where and When Can We Use Google Trends to Measure Issue Salience?" *PS Polit. Sci. Polit.* 46 (2): 280–90. https://doi.org/https://doi.org/10.1017/S1049096513000279.

Mutz, Diana C., and Robin Pemantle. 2015. "Standards for Experimental Research: Encouraging a Better Understanding of Experimental Methods." *Journal of Experimental Political Science* 2: 192–215. https://doi.org/https://doi.org/10.1017/XPS.2015.4.

Pennycook, Gordon, and David G Rand. 2019. "Fighting Misinformation on Social Media Using Crowdsourced Judgments of News Source Quality." *Proceedings of the National Academy of Sciences* 116 (7): 2521–6. https://doi.org/https://doi.org/10.1073/pnas.1806781116.

Remus, Robert, Uwe Quasthoff, and Gerhard Heyer. 2010. "Sentiws-a Publicly Available German-Language Resource for Sentiment Analysis." In *LREC 2010*.

Tibshirani, Julie, Stefan Wager, and Susan Athey. 2020. "The Grf Algorithm." https://grf-labs.github.io/grf/REFERENCE.html.

Wager, Stefan, and Susan Athey. 2018. "Estimation and Inference of Heterogeneous Treatment Effects Using Random Forests." *Journal of the American Statistical Association* 113 (523): 1228–42. https://doi.org/https://doi.org/10.1080/01621459.2017.1319839.