

# **Facts and myths about misinformation**

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# Why we need facts about misinformation

- ▶ Many very serious reasons for concern
  - ▶ Threats to public health
  - ▶ Threats to democracy
- ▶ But beware data-free claims and moral panics!

# What do people know?

Traditional view: Knowledge vs. ignorance

► Facts → evaluations → preferences/behavior

Third possibility: Misinformation

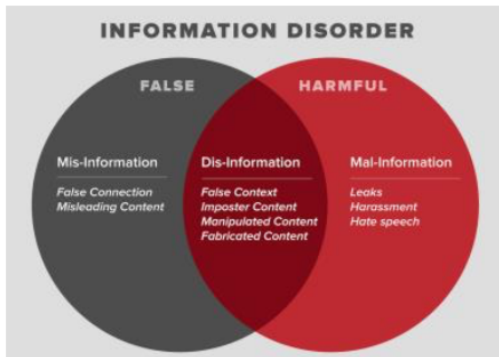
# What is a misperception?

Nyhan and Reifler (2010):

*[W]e define misperceptions as cases in which people's beliefs about factual matters are not supported by clear evidence and expert opinion — a definition that includes both false and unsubstantiated beliefs about the world.*

# A note on terminology

- Mis-information is when false information is shared, but no harm is meant.
- Dis-information is when false information is knowingly shared to cause harm.
- Mal-information is when genuine information is shared to cause harm, often by moving information designed to stay private into the public sphere.



(Wardle and Derakshan 2017)

# Human vulnerabilities to misinformation

- ▶ Simple exposure
- ▶ Lack of scrutiny/analytical thinking
- ▶ Selective exposure
- ▶ Directionally motivated reasoning

# The supply side of misinformation

- ▶ Tech reduces costs of creation and distribution
- ▶ Increased political and economic incentives
- ▶ Speed of distribution outstrips accurate info

# Myths about (mis)information exposure and belief

Myth: Most Americans are in online echo chambers

Myth: Consumption of false news is common

Myth: Fact-checks usually backfire



# Myths about (mis)information exposure and belief

Myth: Most Americans are in online echo chambers

Reality: Highly slanted info diets are rare

Myth: Consumption of false news is common

Reality: Exposure levels low, concentrated

Myth: Fact-checks usually backfire

Reality: Corrections effective but not persistent

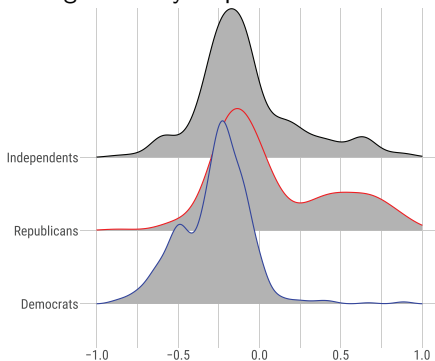
Myth: Most Americans are in online  
echo chambers

# Reality: Media diets typically reasonably balanced

Estimated online media diet slant

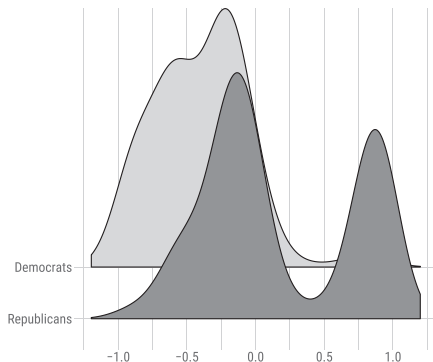
- ▶ Behavioral data from YouGov Pulse (n=2,512)
- ▶ Media slant data from Bakshy et al. 2015

Average slant by respondent



(Guess 2021)

Overall traffic distribution

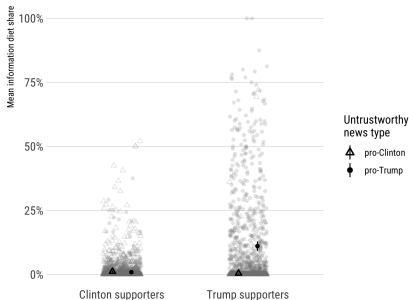
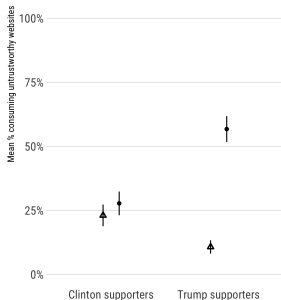


Myth: Consumption of false news is  
common

# Reality: Exposure to untrustworthy news low

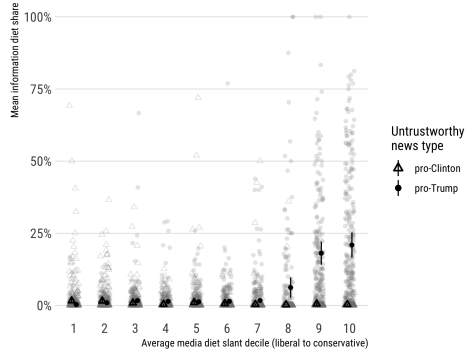
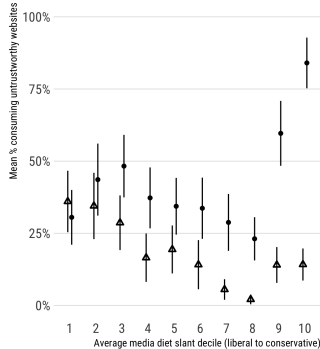
Behavioral data from YouGov Pulse (n=2,525):

- ▶ 44.3% read at least one article in fall 2016
  - ▶ Outcome measure from Grinberg et al. (*Science*, 2019)
- ▶ Mean of 14.2 articles read
- ▶ Total: 5.9% of pages visited on hard news topics



(Guess, Nyhan, and Reifler 2020)

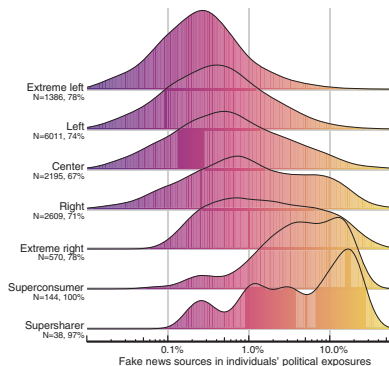
# Reality: Audience small and concentrated



(Guess, Nyhan, and Reifler 2020)

# Reality: Audience small and concentrated

**Fig. 3. Probability density estimates for the percentage of content from fake news sources in people's news feeds (for people with any fake news exposures).**  
The number of individuals in each subgroup (N) and the percent with nonzero exposures to fake news sources are shown.



(Grinberg et al. 2019)

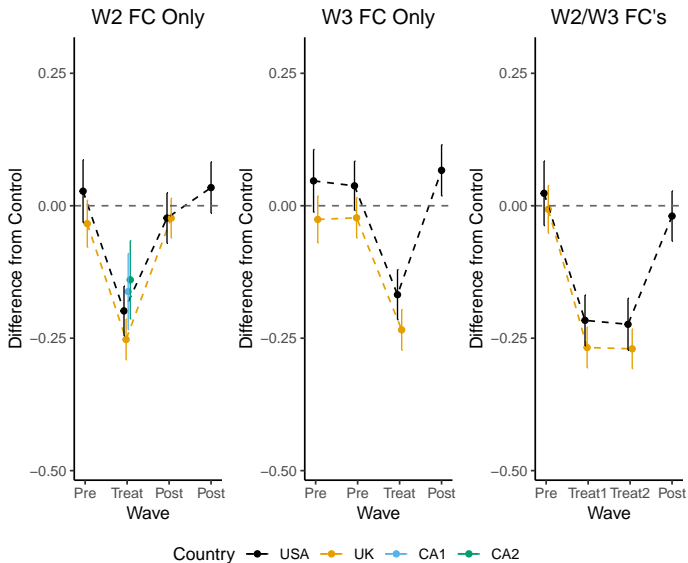
Supersharers: top 1% → 82% of false news shares

Superconsumers: top 1% → 74% of exposures

Myth: Fact-checks usually backfire



# Reality: Most fact-checks work (but don't last)



(Carey, Guess, Nyhan, Phillips, and Reifler N.d.)

## General findings

- ▶ Echo chambers and exposure to extreme content is rare
- ▶ Fact-checks can counter false information but effects not persistent
- ▶ Note: Can still have significant consequences!
  - ▶ Encourage non-compliance with public health recommendations
  - ▶ Facilitate efforts to overturn a democratic election

# Threat: COVID-19 vaccine politicization/distrust

Figure 3

## Half Of Adults Live In Fully Vaccinated Households While One Quarter Live In A Fully Unvaccinated Household

Percent of adults who live in households that are entirely vaccinated, entirely unvaccinated, or mixed:

■ All-vaccinated household ■ Vaccinated in mixed household ■ Unvaccinated in mixed household ■ All-unvaccinated household



### Party identification



### COVID-19 vaccination status



NOTE: Vaccinated adults are those who have received at least one dose of a COVID-19 vaccine. See topline for full question wording.

SOURCE: KFF COVID-19 Vaccine Monitor (June 8-21, 2021)

**KFF COVID-19**  
**Vaccine Monitor**

# Needed: Trusted sources (Republicans)

## Vice President Pence To Get COVID-19 Vaccine Publicly On Friday

December 16, 2020 · 6:29 PM ET

ALANA WISE



Vice President Pence attends a rally this month in support of GOP Sen. David Perdue and Kelly Loeffler in Savannah, Ga.  
Spencer Platt/Getty Images

Estimated Effects of Republican Endorse Condition on Vaccine Intentions, Encouragement, and Attitudes

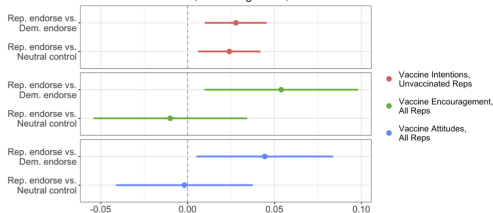


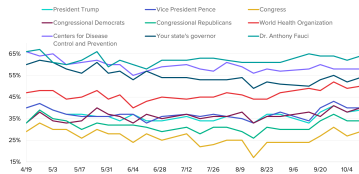
Figure 2: Average treatment effects on vaccination intentions among unvaccinated Republicans. Average treatment effects among all Republicans reported for willingness to encourage family and friends to get the vaccine and vaccine attitudes (belief that benefits outweighing risks, vaccine will protect from severe illness, people have responsibility to get vaccine, and vaccine will help the economy). All scales range from 0 to 1.

(Pink et al. N.d.)

# Needed: Trusted sources (Fauci)

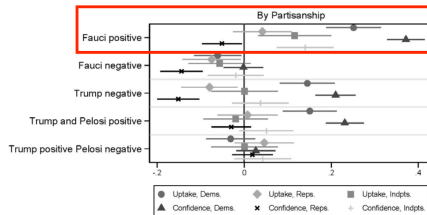
## Nearly 2 in 3 Voters Rate Dr. Fauci's Coronavirus Response as Excellent or Good

Share of registered voters who said they'd rate each of the following groups and people's responses to the coronavirus as excellent or good:



MORNING CONSULT • POLITICO

Polls were conducted between April 17 and Oct. 11, 2020, among about 1,990 registered voters each, with margins of error of +/-2%.



Comparison to Trump positive statement

(Bokemper et al. 2021)

Needed: Trusted sources in marginalized groups



WE@COVID | BCAC

# THE CONVERSATION

BETWEEN US, ABOUT US.™



W. Kamau Bell talks with Black health care workers about the **COVID Vaccines**

# Needed: Trusted sources (HC workers)

**TABLE 2** Parental Report of Levels of Trust of Certain People for Vaccine-Safety Information

	A Lot, %	Some, %	Not at All, %
My child(ren)'s doctor	76	22	2
Other health care providers	26	70	4
Government vaccine experts/officials	23	61	16
Family and friends	15	67	18
Parents who believe their child was harmed by a vaccine	8	65	27
Celebrities	2	24	74

(Freed et al. 2011)

# Conclusions and recommendations

- ▶ Preventing myths  $>$  correcting them
- ▶ Correcting misinfo unlikely to be optimal
- ▶ Differentiate extremists from average people
- ▶ Trusted sources best for skeptical audiences