



# Misinformation and attitude formation among the Canadian Public

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AENGUS BRIDGMAN

COPSS-NISS COVID-19 DATA  
SCIENCE WEBINAR SERIES

FEBRUARY 18

# BIG THINK

- Elite cues are potent forces
- However, where we get our information is becoming ever-more diffuse
- Notably, information consumption on social media is ever-increasing
- Little formal democratic governance or oversight on social media platforms\*

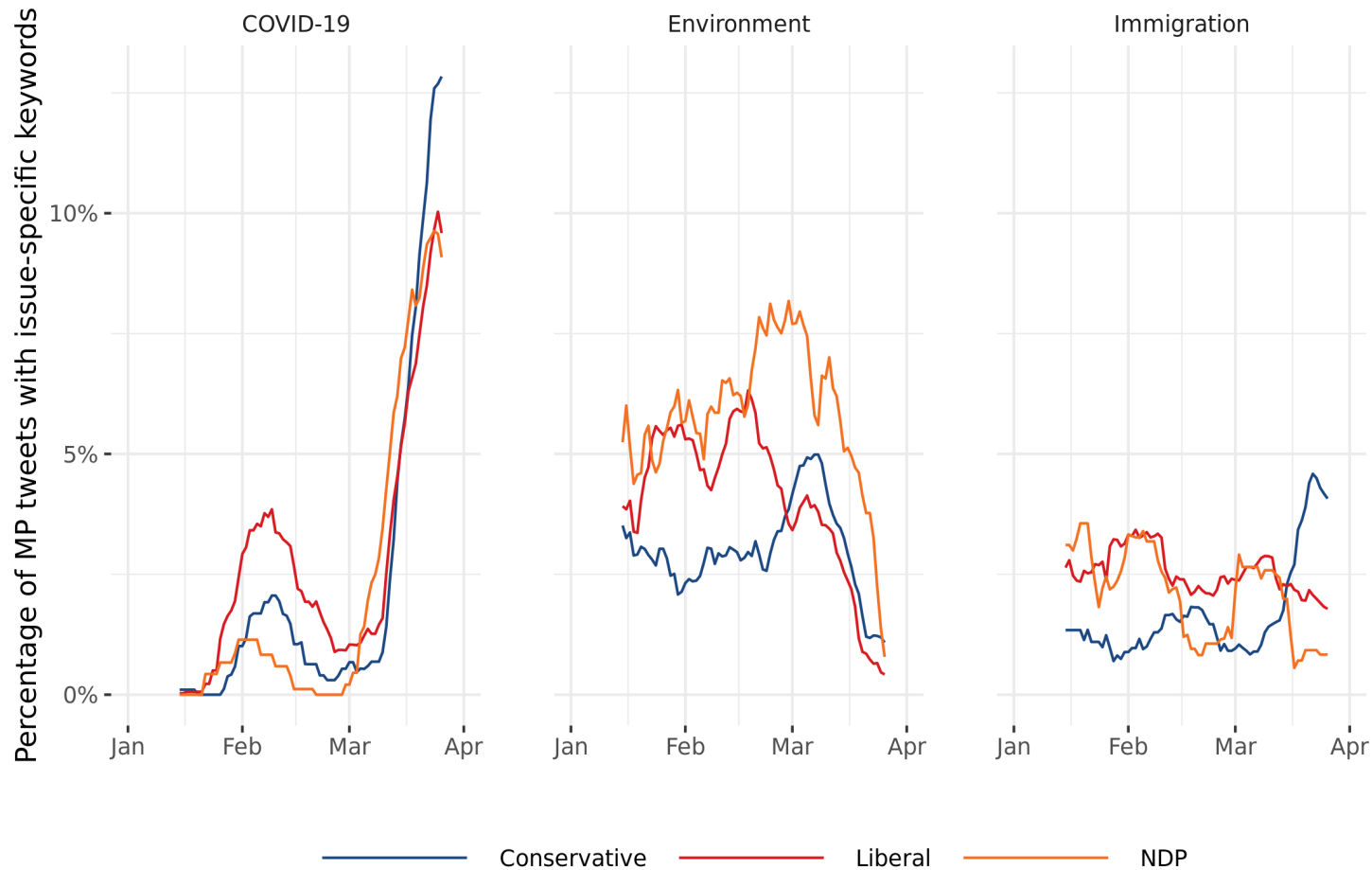
TODAY...

A TALE  
OF THREE  
PAPERS

- [A Rare Moment of Cross-Partisan Consensus: Elite and Public Response to the COVID-19 Pandemic in Canada](#)
- [The causes and consequences of COVID-19 misperceptions: Understanding the role of news and social media](#)
- Infodemic pathways: Evaluating the role that news and social media play in cross-national information transfer
- Wrap up

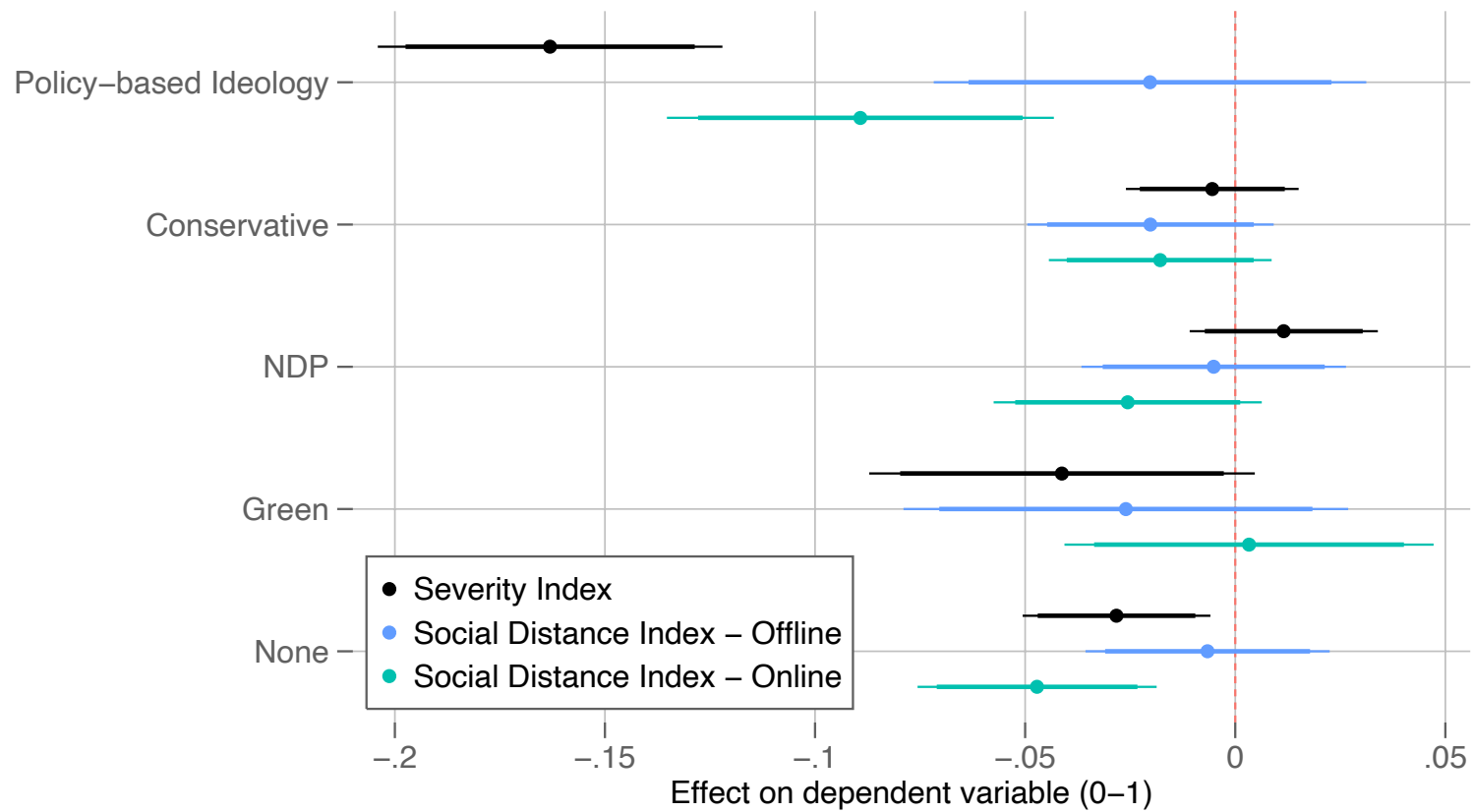
A Rare  
Moment of  
Cross-  
Partisan  
Consensus

- How do politicians' cues impact the mass public response to the pandemic?
- Published in the *Canadian Journal of Political science* (April 2020)
- Multi-wave survey
- Twitter and Facebook posts from Members of Parliament
- Google search history in (87) Canadian cities



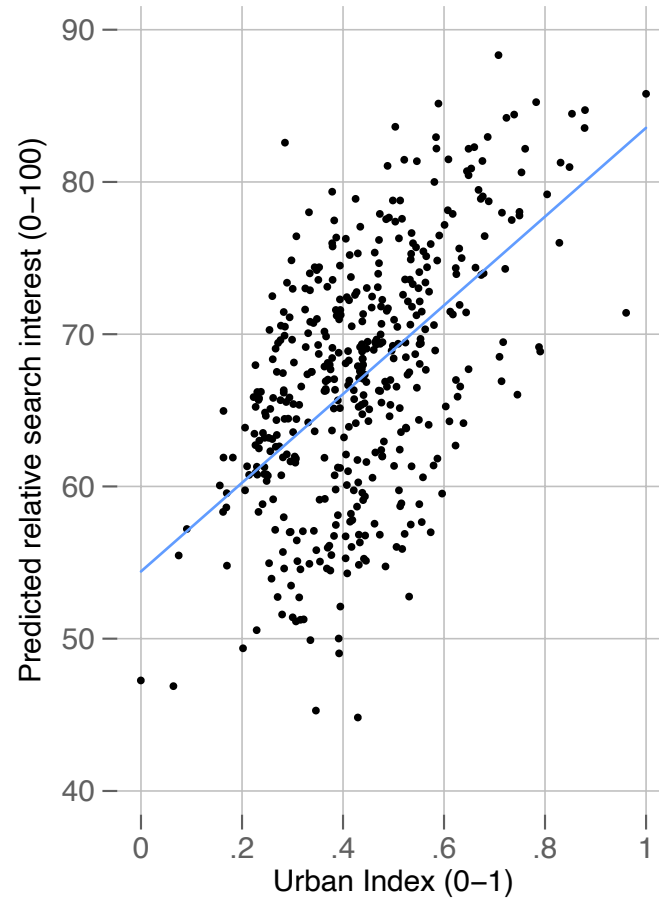
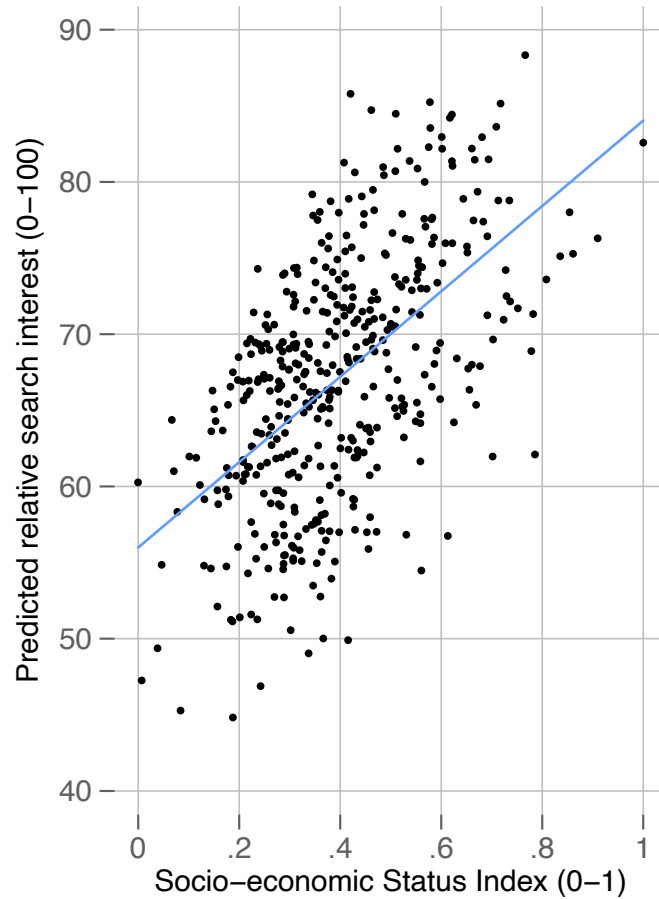
## How did Canadian parties respond to COVID-19?

- 33,124 Member of Parliament tweets from January to April
- Keyword-based and manual review for themes
- No denial or downplaying



Did partisans respond to these elite cues?

- No difference in perceived severity or social distancing practices by partisanship



## Double check with Google search data

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- Dense and large cities
- More educated and wealthy cities
- Conservative vote not a useful explanatory variable

# A Rare Moment of Cross- Partisan Consensus

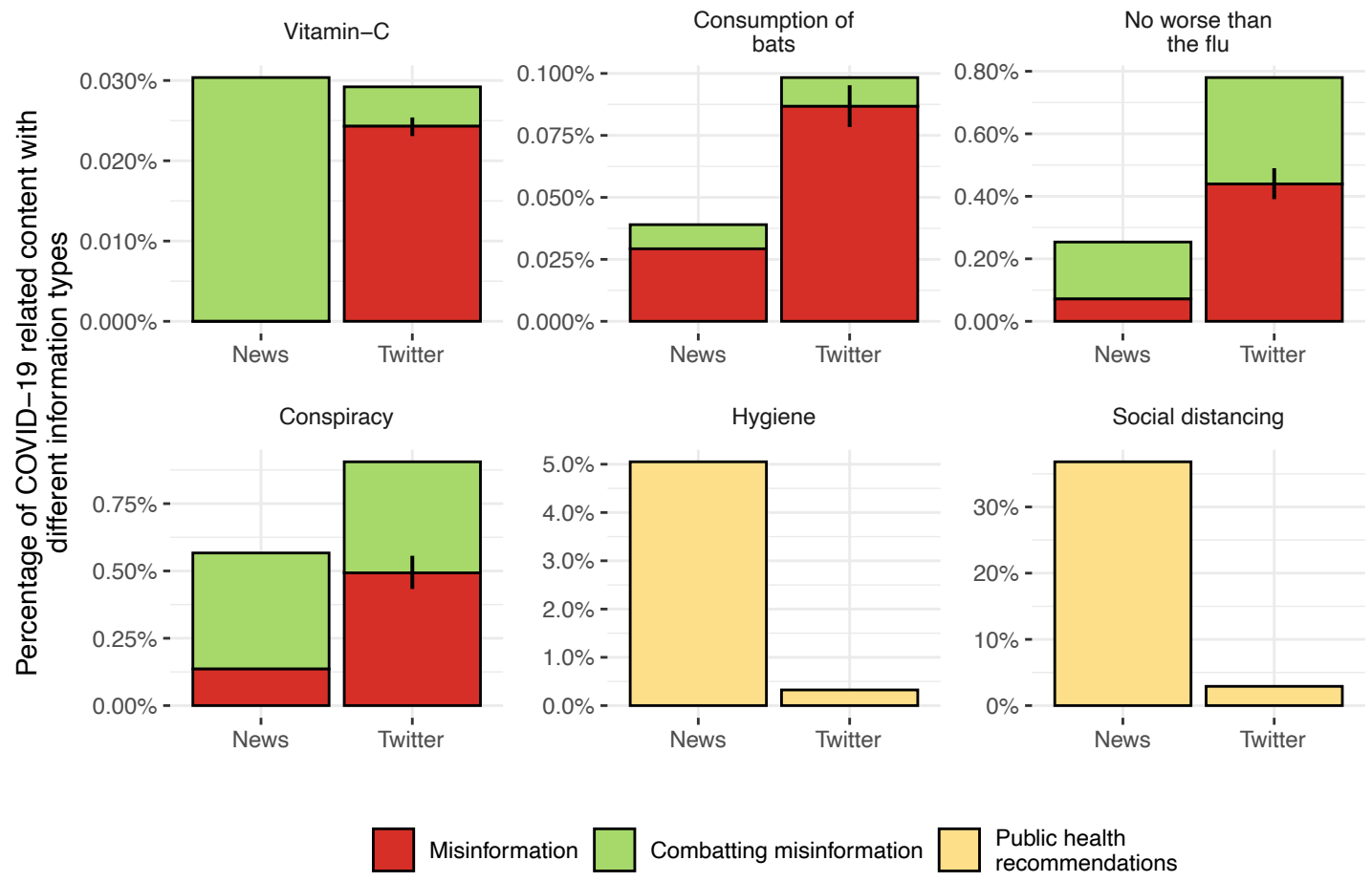
Bottom line

- Elites provide strong cues and increasingly use social media to signal positions
- Cross-party consensus is a politically powerful tool
- New policy issue may cause people to look to their political leaders for guidance
- Where else might people be getting their information?



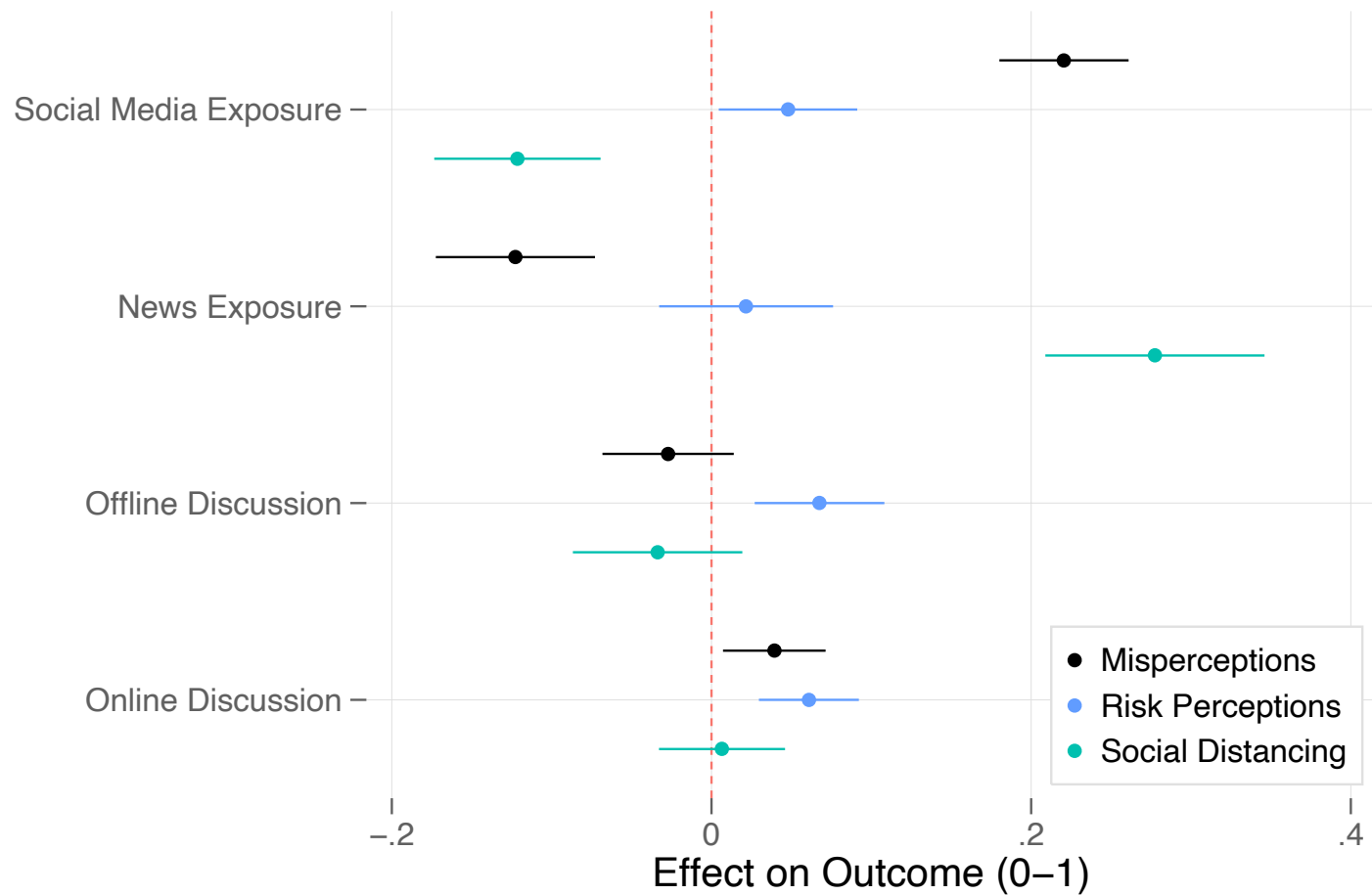
# The causes and consequences of COVID-19 misperceptions

- Where is misinformation about COVID-19?
- What are the consequences of consuming this misinformation?
- Published in the *HKS Misinformation Review* (June 2020)
- Multi-wave survey
- Large Twitter dataset
- Comprehensive Canadian news media dataset



## (Debunking) misinfo on social and news media

- 2.25 million tweets from 620,000 likely Canadians
- 8.8 thousand news articles
- Keywords + manual review



## What are the consequences of all of this misinfo?

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- Survey fielded at the end of the data collection period
- Opposite effects for social and news media

# The causes and consequences of COVID-19 misperceptions

## BOTTOM LINE

- Misinformation is widespread on social media, although there are many users seeking to debunk it as well
- Public health recommendations appear far more frequently in news media information streams
- This information quality differential is dramatically associated with misperceptions, risk evaluations, and social distancing

## Infodemic pathways

- Canadians prefer domestic media sources and political elites are generally disinterested in COVID-19 misinformation
- How then does misinformation enter the public discourse? Where does it come from?
- Tweets, retweets, and large Twitter network
- Multi-wave survey with US information exposure items

### Step 1



Canadian politicians, journalists, and influencers (1174 accounts)



Collect all followers (6569634 distinct accounts)



Check location and description (bio) for Canadian location (747158 accounts)



Pull tweets and retweets since January 1<sup>st</sup>, 2020 (452,139,692 tweets)



Take 200,000 most active content producers

### Step 2



Active Canadian accounts (194359 accounts)



Collect all accounts followed (9118496 distinct accounts)



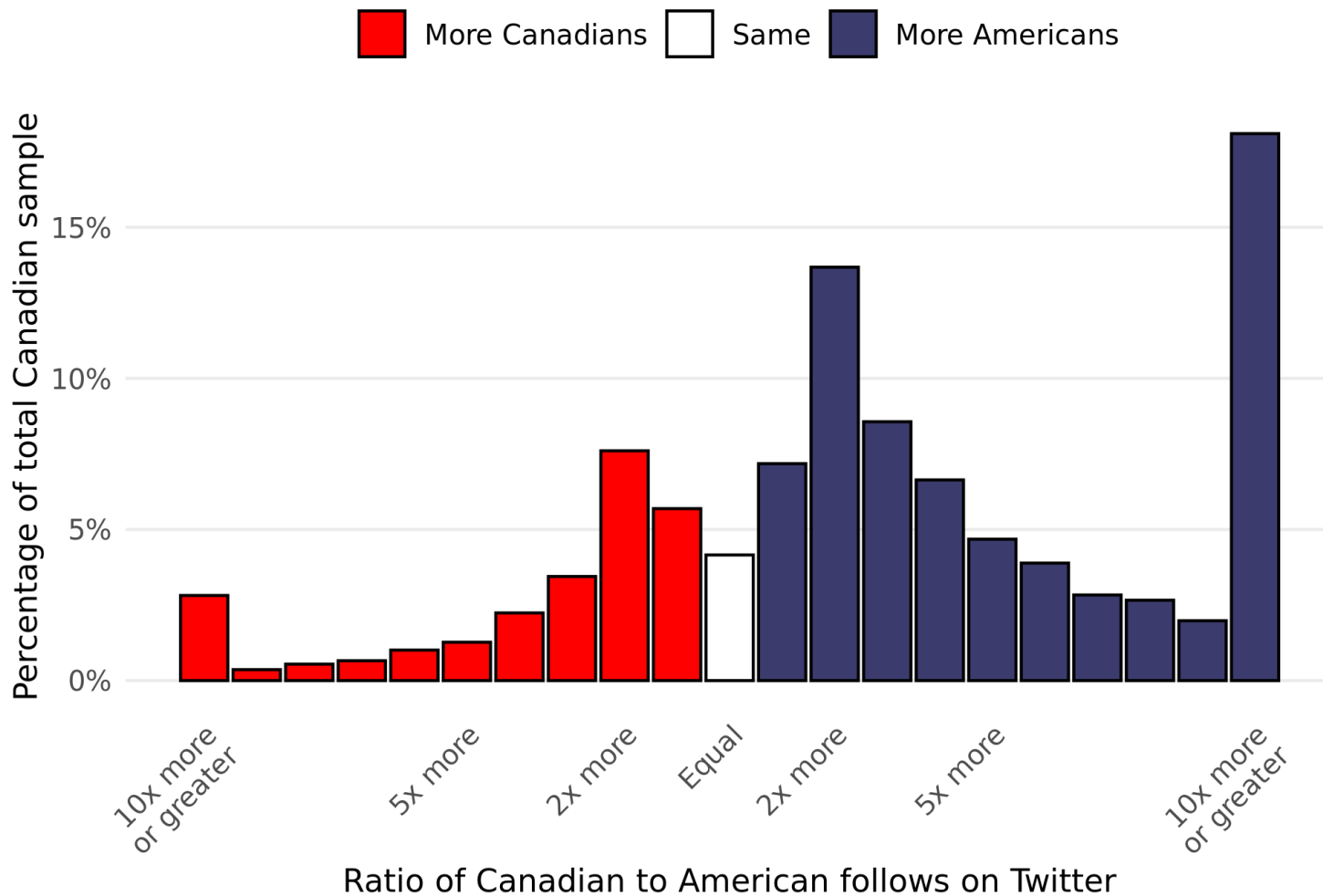
Geolocate each followed account into country (approximately 1.6M Canadian and 5.4M U.S. based accounts)



Collect all content retweeted by top Canadian accounts and classify their country of origin



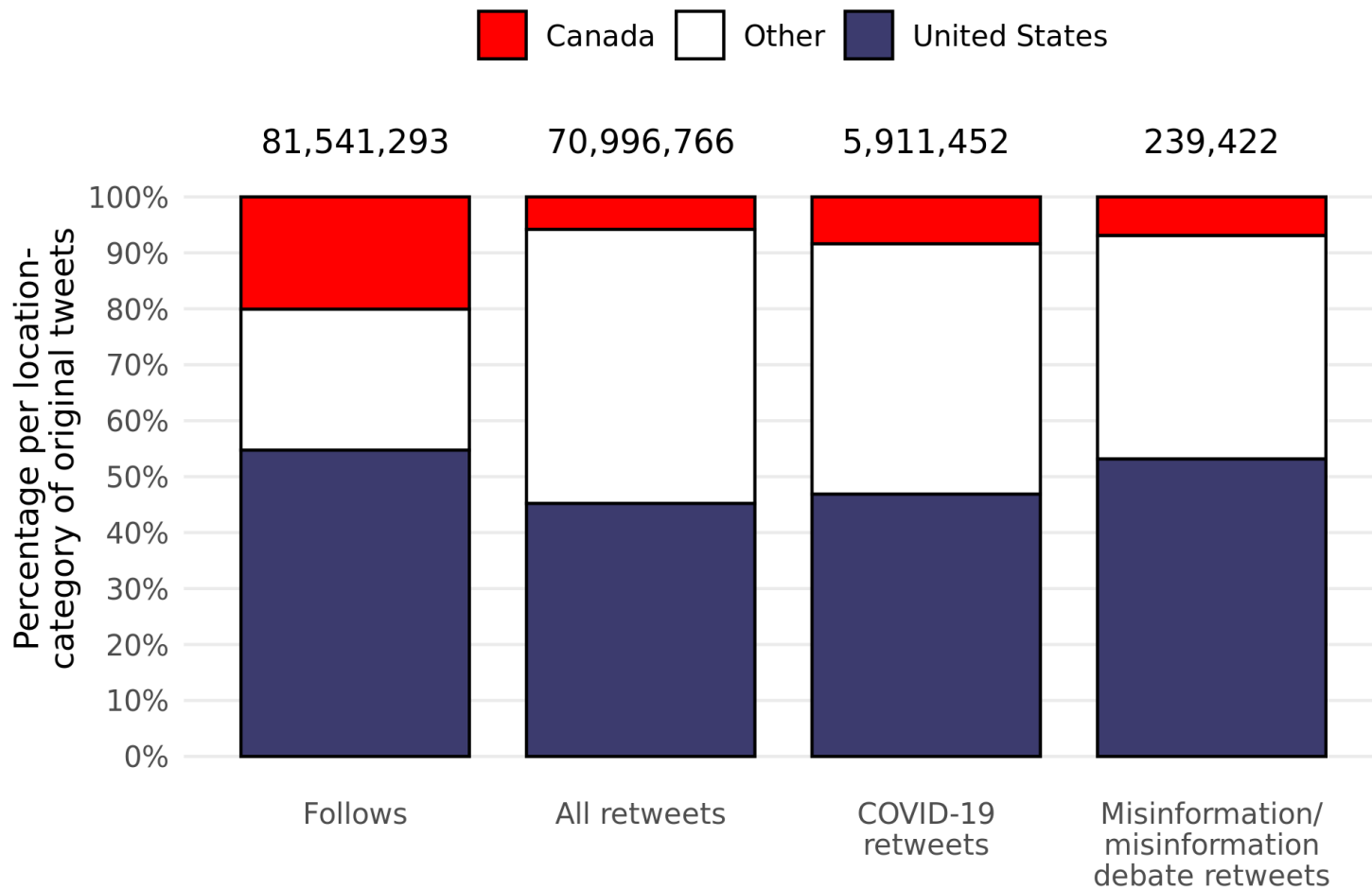
Compute descriptive statistics



## Canadians are very exposed to US information

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- 55% of all geolocated follows are of US users
- 70% of Canadians follow more US users and 17% follow 10x+ more



## How does this impact behaviour?

- 8x more retweets of US-based users
- 53% of retweeted misinfo tweets are from US users
- Dictionary by Evanaga et al. (approx 50% misinfo)
- Canadians also more likely to post original misinfo-related content if they follow more US users



	H1B		H2	
	Coef.	SE	Coef.	SE
U.S. news exposure	0.053**	0.008	-0.056**	0.009
Social media exposure			0.119**	0.010
Social media * U.S. news			0.232**	0.027
Domestic news exposure	-0.091**	0.010	-0.131**	0.010
Political discussion	0.133**	0.008	0.097**	0.008
Political knowledge	-0.145**	0.006	-0.128**	0.006
Political interest	0.019*	0.008	0.004	0.007
Education	-0.149**	0.008	-0.141**	0.007
Age	-0.058**	0.002	-0.037**	0.002
Female	-0.024**	0.003	-0.024**	0.003
Ontario	0.029**	0.006	0.028**	0.006
Quebec	0.025**	0.006	0.026**	0.006
West	0.019**	0.006	0.019**	0.006
Constant	0.518**	0.006	0.465**	0.010
R <sup>2</sup>	0.18		0.22	
N	16216		16216	

Note: DV = COVID-19 misperceptions; \* p<0.05, \*\* p<0.01.

## Triangulation with survey self-reports

- Large interaction effect between social media use and U.S. news exposure

# Infodemic pathways

## Bottom line

- Canadians on social media are more exposed to U.S.-based information
- Increased propagation of misinformation and embrace of misperceptions related to COVID-19
- Is this because Canadians care about United States news?

## Wrap up

- How to explain misperceptions in a mass population – where do they come from?
- Social media is tool that can amplify misinformation and make
- National media markets and information ecosystems are porous. Relying on “good behaviour” of traditional influencers is imperfect

# NEXT STEPS IN THIS RESEARCH AGENDA

Need to tackle:

- Mercurial misinformation problem
- Self-reported misperception problems (e.g., Graham 2021)
- Causal problems (e.g., Bail et al. 2019), particularly around self selection

QUESTIONS  
COMMENTS  
OR JUST GET  
IN TOUCH

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- And a thank you to funders



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