Detecting Implicitly Harmful Language in Political Discourse

Julia Mendelsohn

University of Maryland

juliame@umd.edu

Content Warning

I will be talking about material that may be offensive and upsetting to some audience members.

Democrats are the problem. They don’t care about crime and they want illegal immigrants, no matter how bad they may be, to pour into and infest our Country, like MS-13. They can’t win on their terrible policies, so they view them as potential voters! ~ President Donald Trump, June 2018

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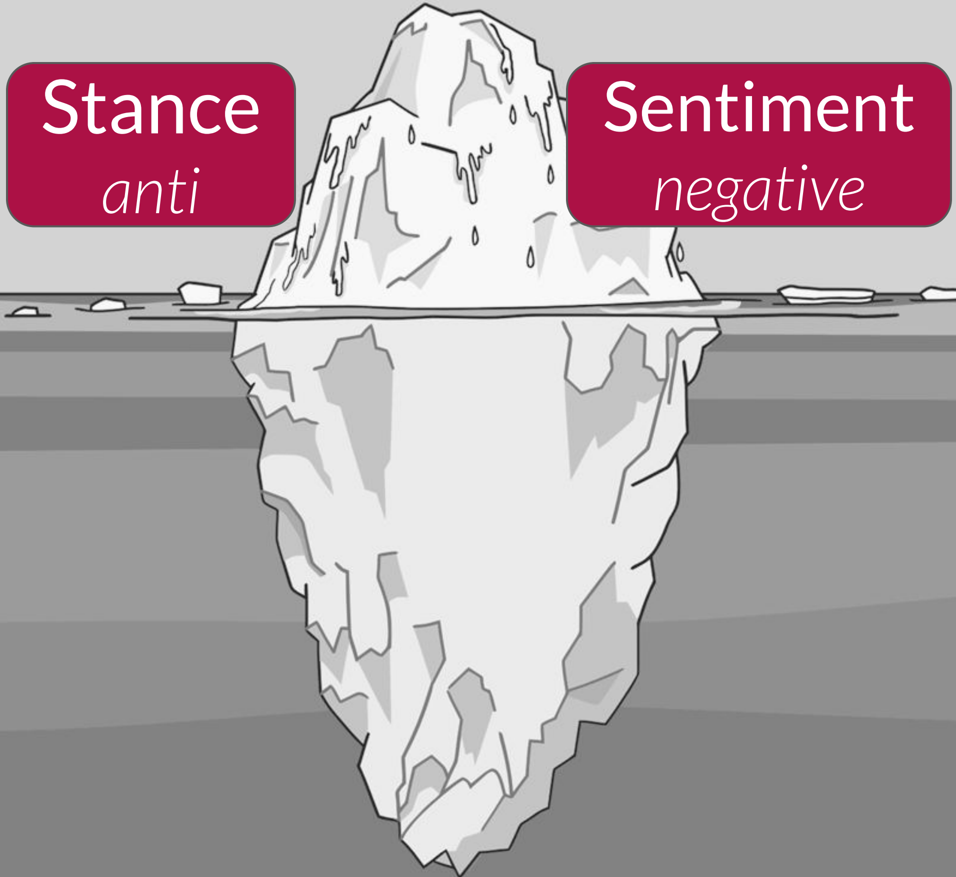
The Implicit Iceberg



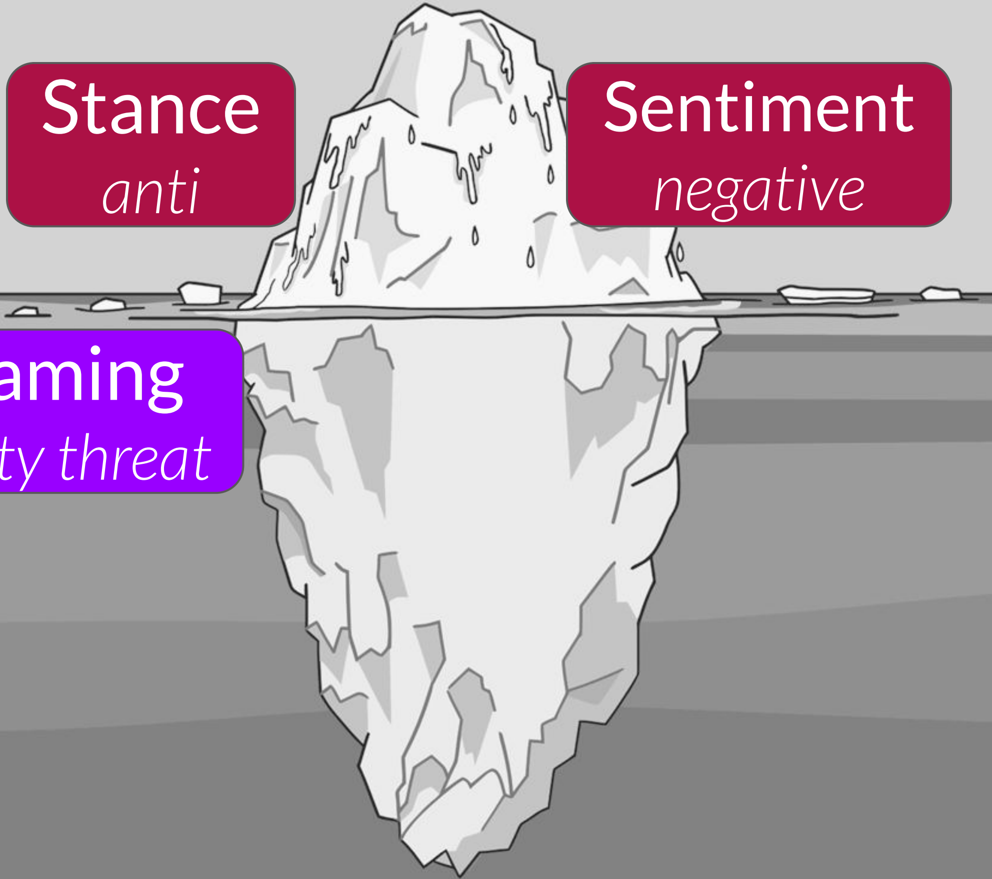
Stance

anti

Sentiment

negative

The Implicit Iceberg



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Framing
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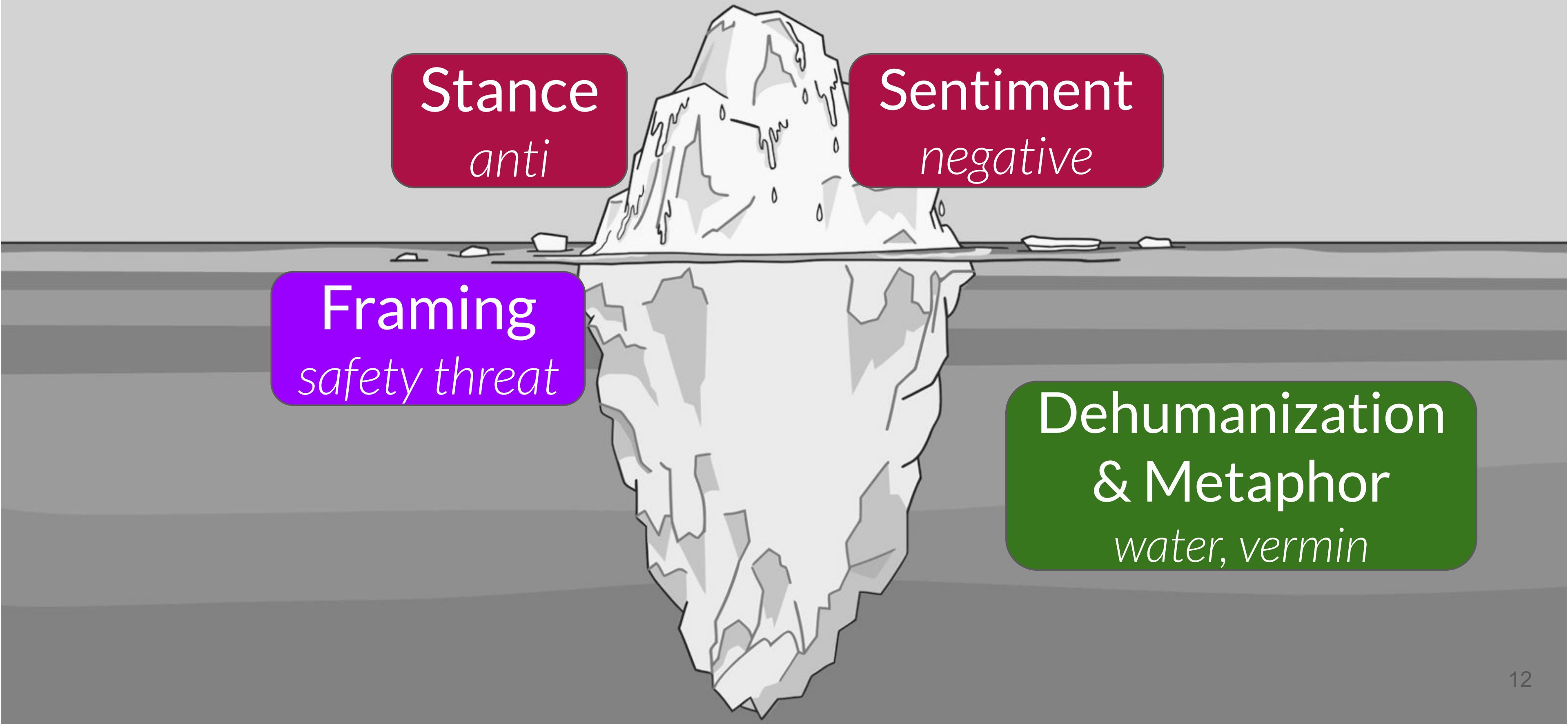

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Dehumanization & Metaphor
water, vermin

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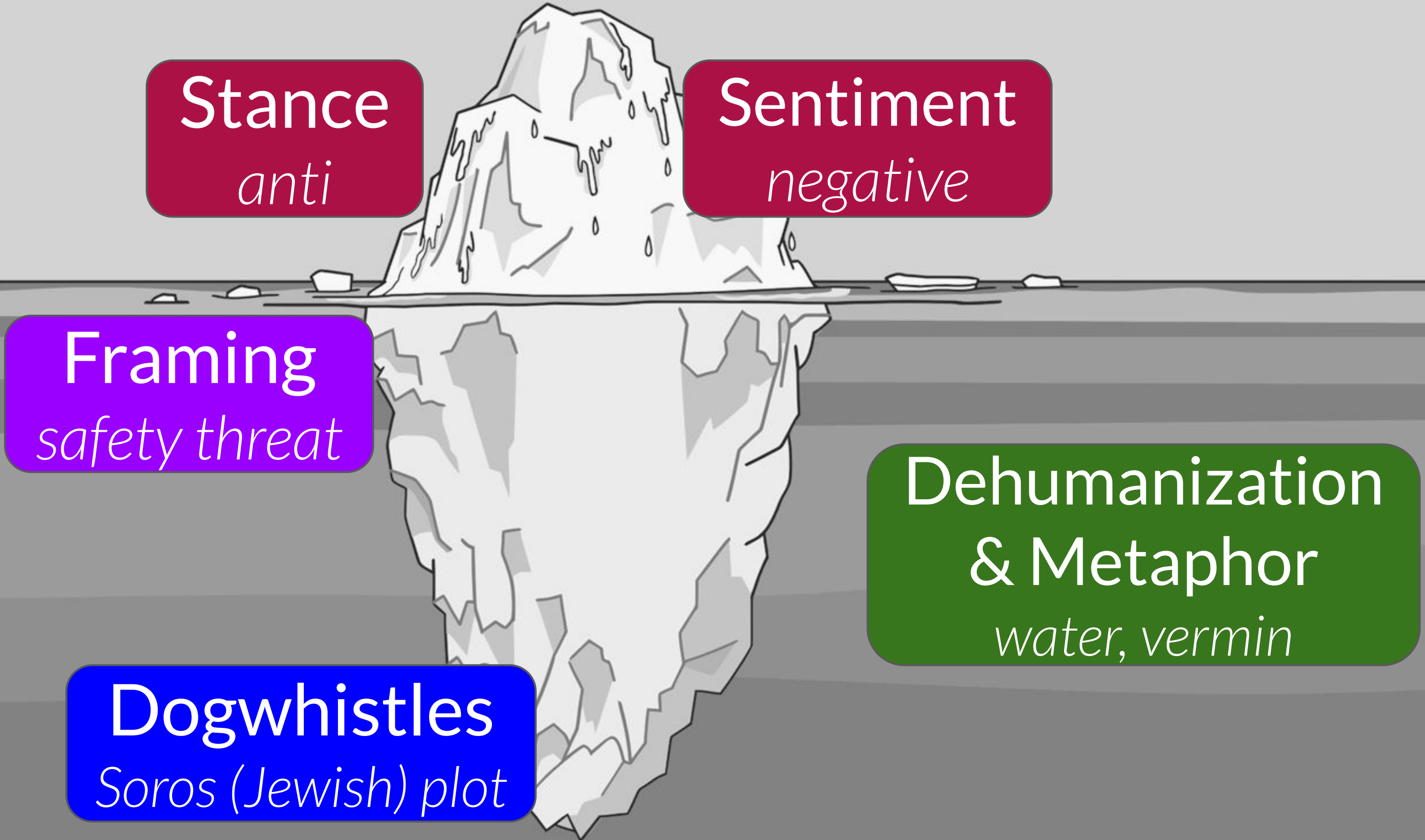

Stance

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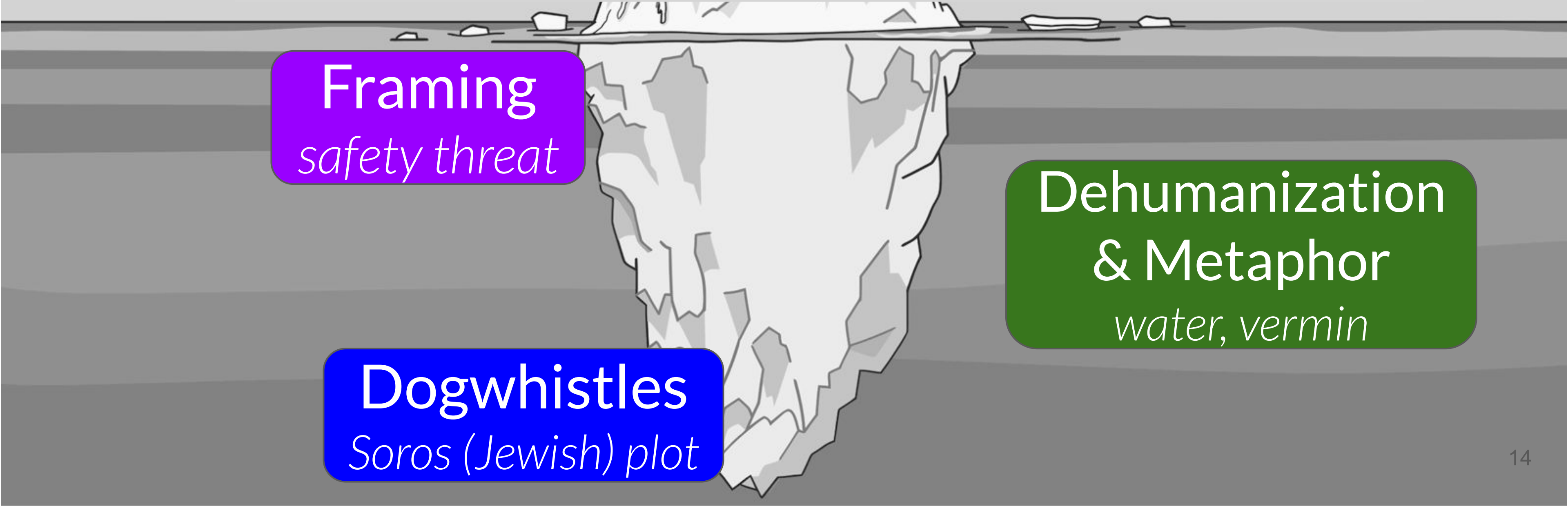
Dogwhistles

Soros (Jewish) plot

These strategies shape ***how audiences understand*** political issues...



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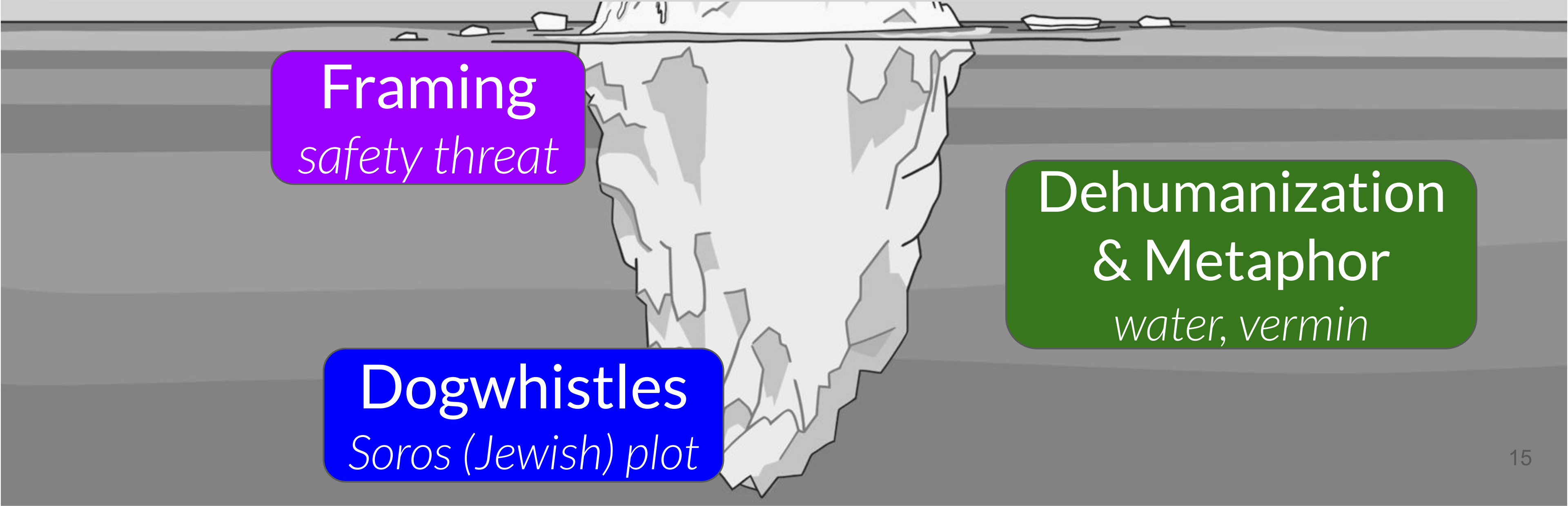
...and are key elements of political communication



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Campaigns
[Tilley, 2020]

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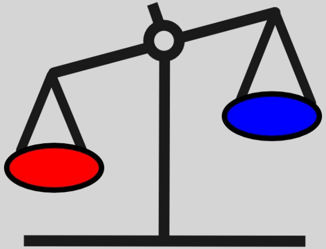

Media Bias
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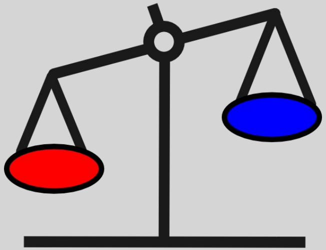

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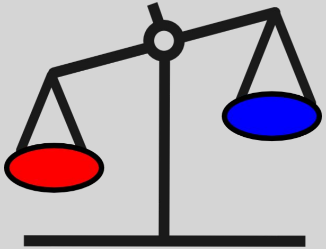

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Propaganda
[Landry et al., 2022]

…with far-reaching implications

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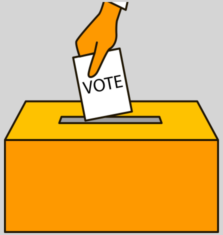

Electoral Outcomes
[Haney López, 2014]

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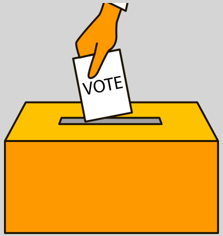

Policymaking

[Walgrave et al., 2018]

Electoral Outcomes

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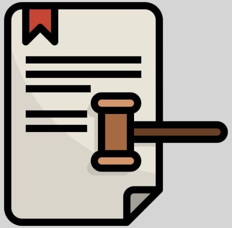

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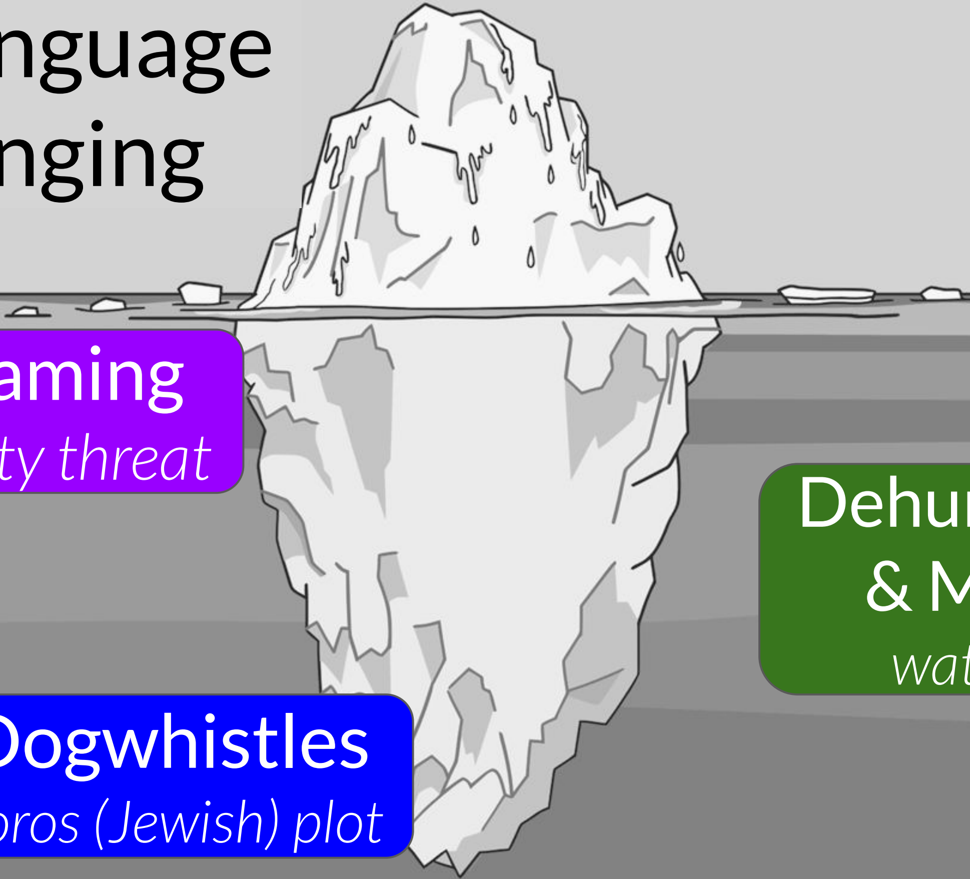
Safety & Well-being
[Rai et al., 2017]

Uncovering implicit language is challenging



Framing

safety threat

Dehumanization & Metaphor

water, vermin

Dogwhistles

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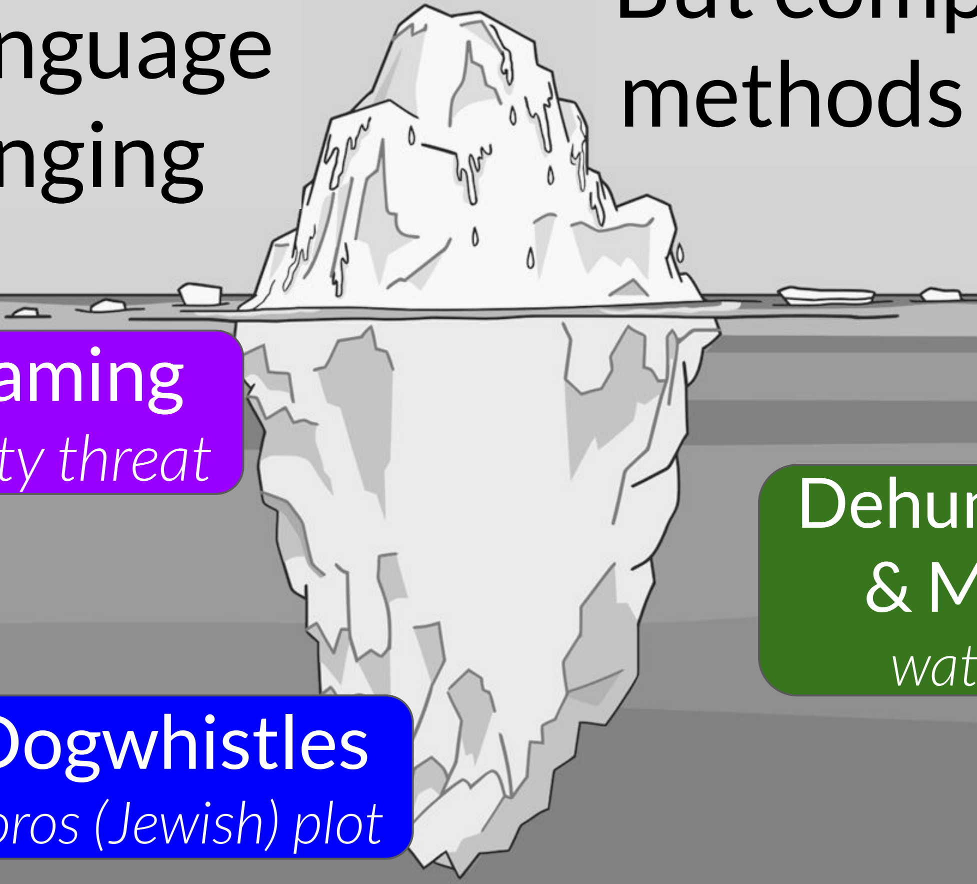
Uncovering implicit language is challenging

But computational methods can help!



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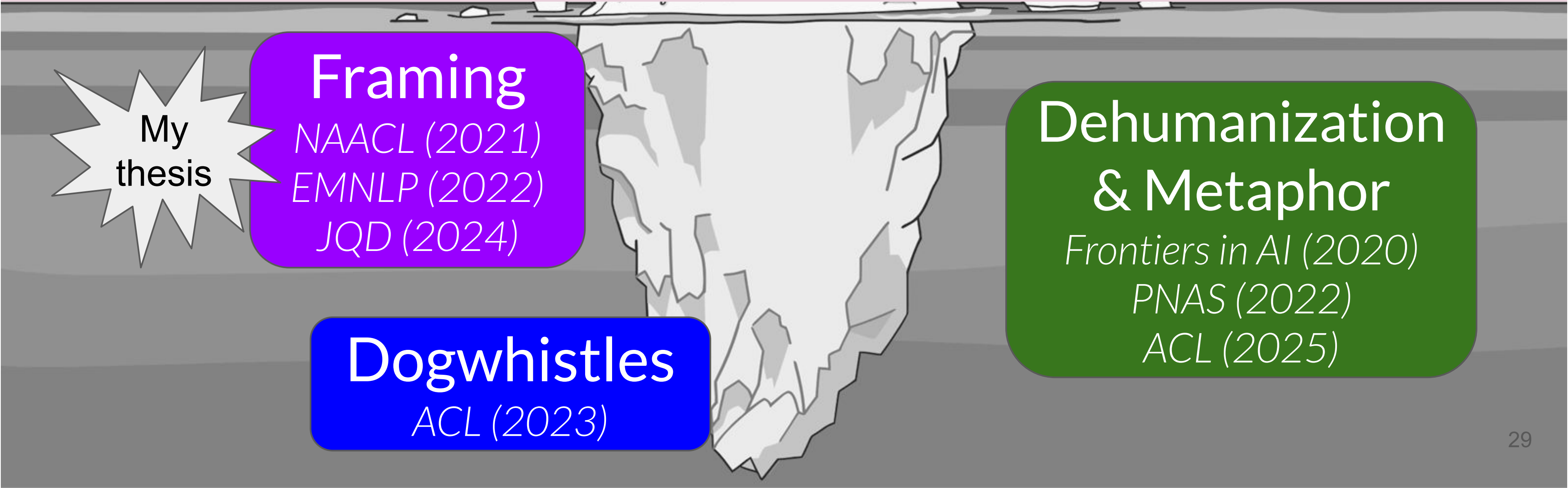

My thesis

Framing

NAACL (2021)

EMNLP (2022)

JQD (2024)

Dogwhistles

ACL (2023)

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Frontiers in AI (2020)

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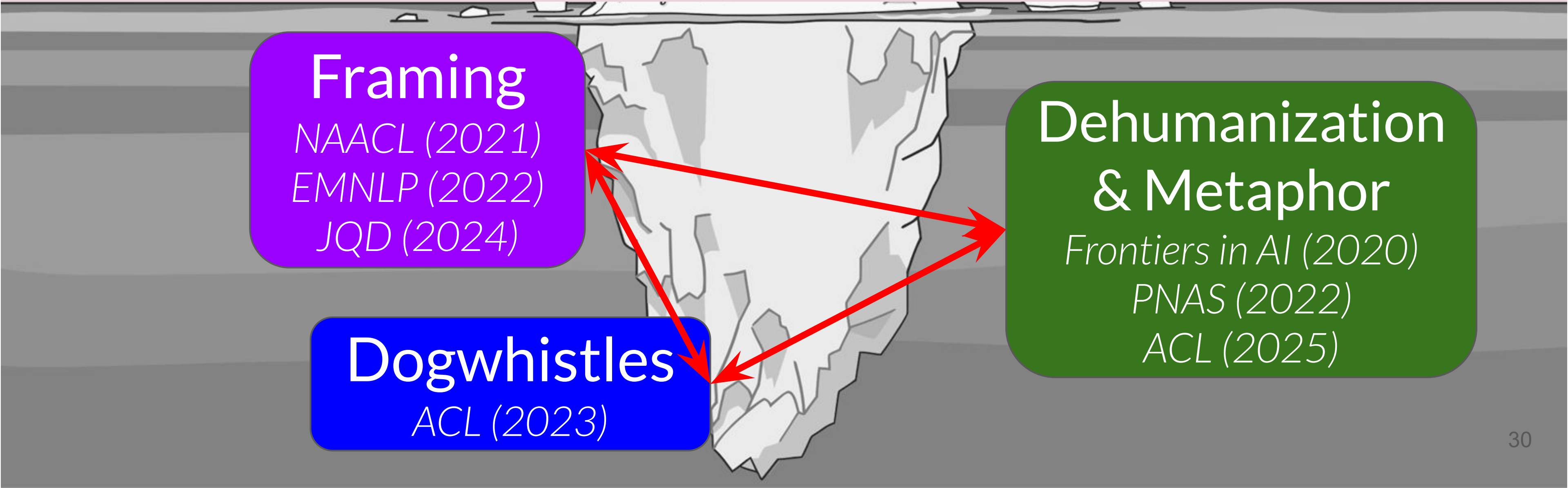

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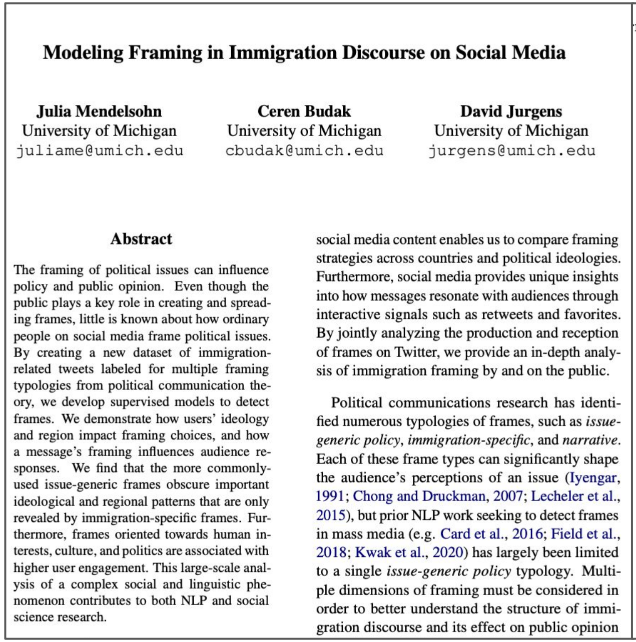
Many ways to think about **framing**

Mark Dredze
@mdredze

Stumpy inspired meme. Credit to my PhD students for the idea.



Modeling Framing in Immigration Discourse on Social Media

Julia Mendelsohn
University of Michigan
juliame@umich.edu

Ceren Budak
University of Michigan
cbudak@umich.edu

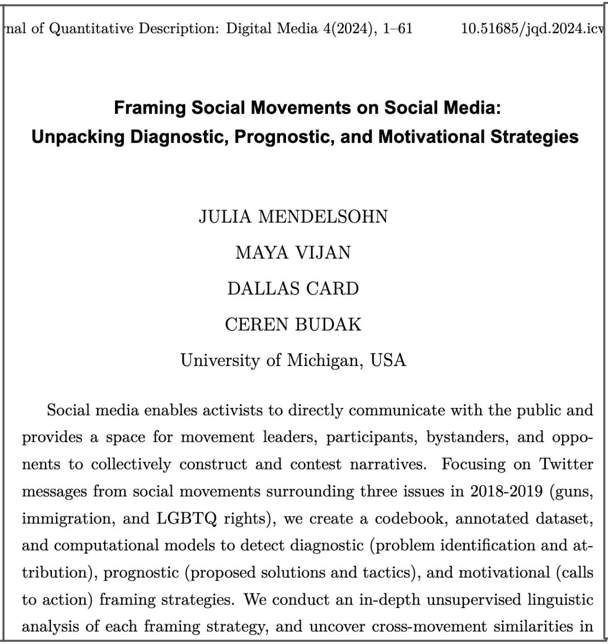
David Jurgens
University of Michigan
jurgens@umich.edu

Abstract

The framing of political issues can influence policy and public opinion. Even though the public plays a key role in creating and spreading frames, little is known about how ordinary people on social media frame political issues. By creating a new dataset of immigration-related tweets labeled for multiple framing typologies from political communication theory, we develop supervised models to detect frames. We demonstrate how users' ideology and region impact framing choices, and how a message's framing influences audience responses. We find that the more commonly-used issue-generic frames obscure important ideological and regional patterns that are only revealed by immigration-specific frames. Furthermore, frames oriented towards human interests, culture, and politics are associated with higher user engagement. This large-scale analysis of a complex social and linguistic phenomenon contributes to both NLP and social science research.

social media content enables us to compare framing strategies across countries and political ideologies. Furthermore, social media provides unique insights into how messages resonate with audiences through interactive signals such as retweets and favorites. By jointly analyzing the production and reception of frames on Twitter, we provide an in-depth analysis of immigration framing by and on the public.

Political communications research has identified numerous typologies of frames, such as *issue-generic policy*, *immigration-specific*, and *narrative*. Each of these frame types can significantly shape the audience's perceptions of an issue (Iyengar, 1991; Chong and Druckman, 2007; Lecheler et al., 2015), but prior NLP work seeking to detect frames in mass media (e.g. Card et al., 2016; Field et al., 2018; Kwak et al., 2020) has largely been limited to a single *issue-generic policy* typology. Multiple dimensions of framing must be considered in order to better understand the structure of immigration discourse and its effect on public opinion

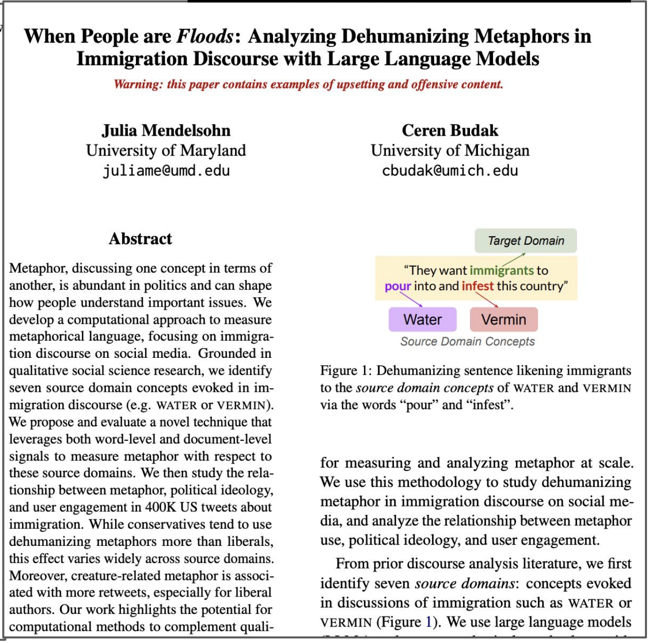


nal of Quantitative Description: Digital Media 4(2024), 1–61 10.51685/jqd.2024.icv

Framing Social Movements on Social Media: Unpacking Diagnostic, Prognostic, and Motivational Strategies

JULIA MENDELSOHN
MAYA VIJAN
DALLAS CARD
CEREN BUDAK
University of Michigan, USA

Social media enables activists to directly communicate with the public and provides a space for movement leaders, participants, bystanders, and opponents to collectively construct and contest narratives. Focusing on Twitter messages from social movements surrounding three issues in 2018-2019 (guns, immigration, and LGBTQ rights), we create a codebook, annotated dataset, and computational models to detect diagnostic (problem identification and attribution), prognostic (proposed solutions and tactics), and motivational (calls to action) framing strategies. We conduct an in-depth unsupervised linguistic analysis of each framing strategy, and uncover cross-movement similarities in



When People are *Floods*: Analyzing Dehumanizing Metaphors in Immigration Discourse with Large Language Models

Warning: this paper contains examples of upsetting and offensive content.

Julia Mendelsohn
University of Maryland
juliame@umd.edu

Ceren Budak
University of Michigan
cbudak@umich.edu

Abstract

Metaphor, discussing one concept in terms of another, is abundant in politics and can shape how people understand important issues. We develop a computational approach to measure metaphorical language, focusing on immigration discourse on social media. Grounded in qualitative social science research, we identify seven source domain concepts evoked in immigration discourse (e.g. WATER or VERMIN). We propose and evaluate a novel technique that leverages both word-level and document-level signals to measure metaphor with respect to these source domains. We then study the relationship between metaphor, political ideology, and user engagement in 400K US tweets about immigration. While conservatives tend to use dehumanizing metaphors more than liberals, this effect varies widely across source domains. Moreover, creature-related metaphor is associated with more retweets, especially for liberal authors. Our work highlights the potential for computational methods to complement quali-

Target Domain

"They want immigrants to pour into and infest this country"

Water | Vermin

Source Domain Concepts

Figure 1: Dehumanizing sentence likening immigrants to the *source domain concepts* of WATER and VERMIN via the words "pour" and "infest".

for measuring and analyzing metaphor at scale. We use this methodology to study dehumanizing metaphor in immigration discourse on social media, and analyze the relationship between metaphor use, political ideology, and user engagement.

From prior discourse analysis literature, we first identify seven *source domains*: concepts evoked in discussions of immigration such as WATER or VERMIN (Figure 1). We use large language models

Modeling Framing in Immigration Discourse on Social Media

NAACL 2021

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What is framing?

> “Selecting some aspects of a perceived reality and make them **more salient** in a communicating text, in such a way as to promote a particular **problem definition, causal interpretation, moral evaluation, and/or treatment recommendation** for the item described” [Entman, 1993]

What is a frame?

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- **Issue-generic Policy** [Boydstun et al., 2013]
    - *Crime & punishment, morality, economic, policy*

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- **Immigration-specific** [Benson, 2013]
  - *Immigrants as victims (e.g. of global economy or discrimination)*
  - *Immigrants as heroes (e.g. contributing to economy or cultural diversity)*
  - *Immigrants as threats (e.g. to jobs, or to public safety)*

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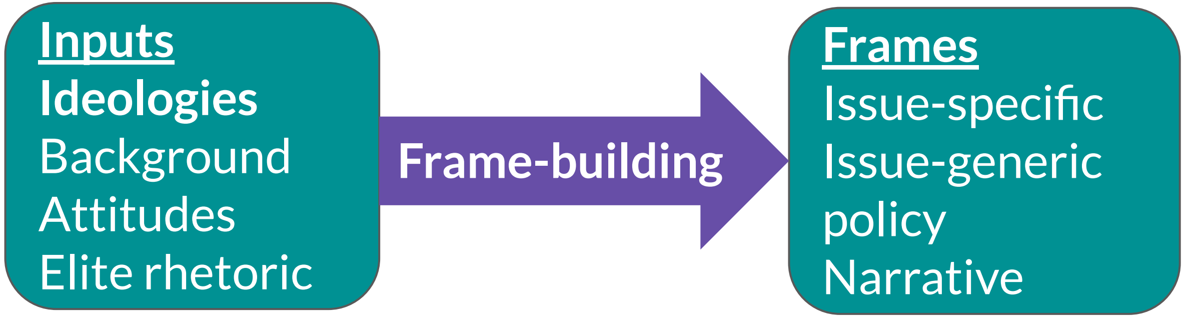
  - *Immigrants as threats (e.g. to jobs, or to public safety)*
- **Issue-generic Narrative** [Iyengar, 1991]
  - *Episodic: focus on specific actions, events, examples, or case studies*
  - *Thematic: focus on broader political, social, cultural context*

Framing processes

- **Frame-building**: factors affecting how an issue is framed



Inputs

Ideologies

Background

Attitudes

Elite rhetoric

Frame-building

Frames

Issue-specific

Issue-generic

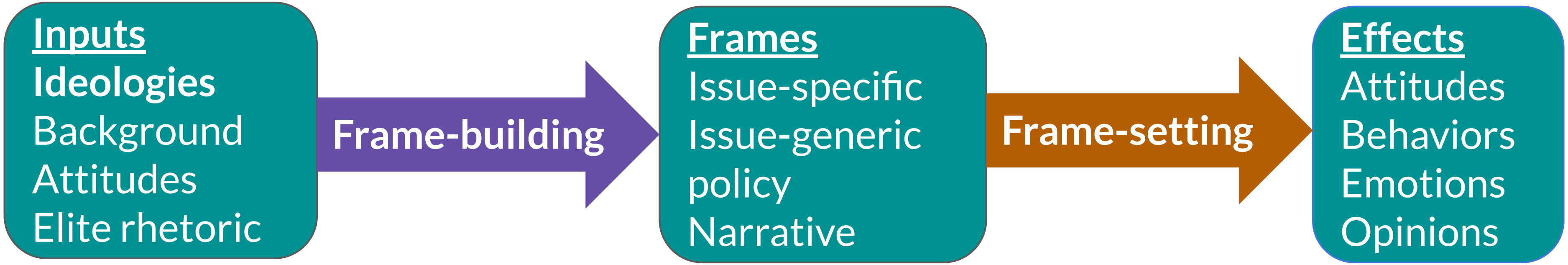
policy

Narrative

Figure & theoretical model adapted from de Vreese [2005] and is a simplification of Scheufele's [1999] four-process model

Framing processes

- **Frame-building**: factors affecting how an issue is framed
- **Frame-setting**: frame effects on audiences



Inputs
Ideologies
Background
Attitudes
Elite rhetoric

Frame-building

Frames
Issue-specific
Issue-generic
policy
Narrative

Frame-setting

Effects
Attitudes
Behaviors
Emotions
Opinions

Figure & theoretical model adapted from de Vreese [2005] and is a simplification of Scheufele's [1999] four-process model

Dataset collection & annotation

Automated frame detection

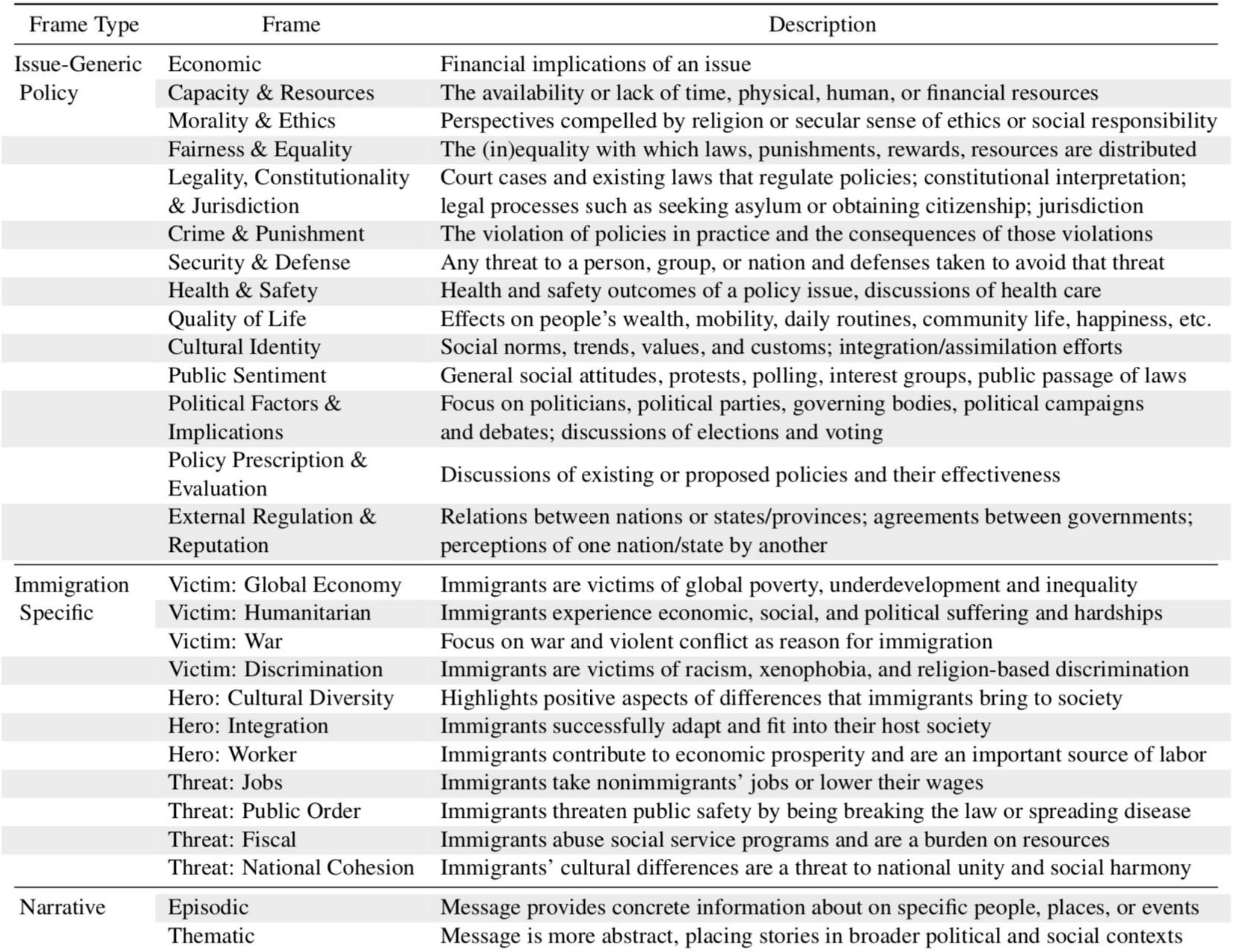
Frame building: role of ideology in framing

Frame setting: effects on user engagement

Data Annotation

3 typologies

27 categories



Frame Type	Frame	Description
Issue-Generic Policy	Economic	Financial implications of an issue
	Capacity & Resources	The availability or lack of time, physical, human, or financial resources
	Morality & Ethics	Perspectives compelled by religion or secular sense of ethics or social responsibility
	Fairness & Equality	The (in)equality with which laws, punishments, rewards, resources are distributed
	Legality, Constitutionality & Jurisdiction	Court cases and existing laws that regulate policies; constitutional interpretation; legal processes such as seeking asylum or obtaining citizenship; jurisdiction
	Crime & Punishment	The violation of policies in practice and the consequences of those violations
	Security & Defense	Any threat to a person, group, or nation and defenses taken to avoid that threat
	Health & Safety	Health and safety outcomes of a policy issue, discussions of health care
	Quality of Life	Effects on people's wealth, mobility, daily routines, community life, happiness, etc.
	Cultural Identity	Social norms, trends, values, and customs; integration/assimilation efforts
	Public Sentiment	General social attitudes, protests, polling, interest groups, public passage of laws
	Political Factors & Implications	Focus on politicians, political parties, governing bodies, political campaigns and debates; discussions of elections and voting
	Policy Prescription & Evaluation	Discussions of existing or proposed policies and their effectiveness
	External Regulation & Reputation	Relations between nations or states/provinces; agreements between governments; perceptions of one nation/state by another
Immigration Specific	Victim: Global Economy	Immigrants are victims of global poverty, underdevelopment and inequality
	Victim: Humanitarian	Immigrants experience economic, social, and political suffering and hardships
	Victim: War	Focus on war and violent conflict as reason for immigration
	Victim: Discrimination	Immigrants are victims of racism, xenophobia, and religion-based discrimination
	Hero: Cultural Diversity	Highlights positive aspects of differences that immigrants bring to society
	Hero: Integration	Immigrants successfully adapt and fit into their host society
	Hero: Worker	Immigrants contribute to economic prosperity and are an important source of labor
	Threat: Jobs	Immigrants take nonimmigrants' jobs or lower their wages
	Threat: Public Order	Immigrants threaten public safety by being breaking the law or spreading disease
	Threat: Fiscal	Immigrants abuse social service programs and are a burden on resources
	Threat: National Cohesion	Immigrants' cultural differences are a threat to national unity and social harmony
Narrative	Episodic	Message provides concrete information about on specific people, places, or events
	Thematic	Message is more abstract, placing stories in broader political and social contexts

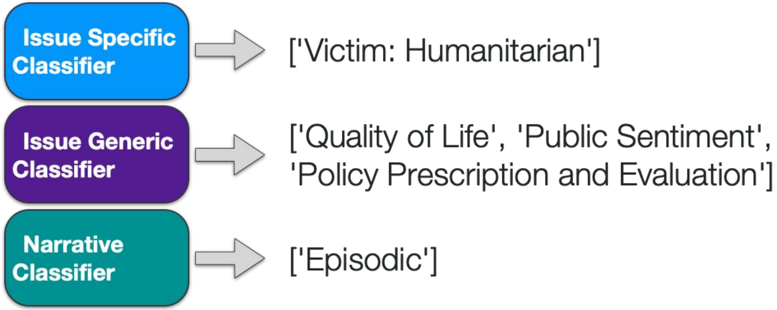
Data Collection and Annotation

- 2.6M English tweets from 2018-2019 containing immigration-related term
- Ideology inference using existing network-based tool
- 4.5K tweets labeled by trained annotators for all frames explicitly cued.

Frame Detection

- RoBERTa-based multilabel classification models fine-tuned on full set of immigration-related tweets

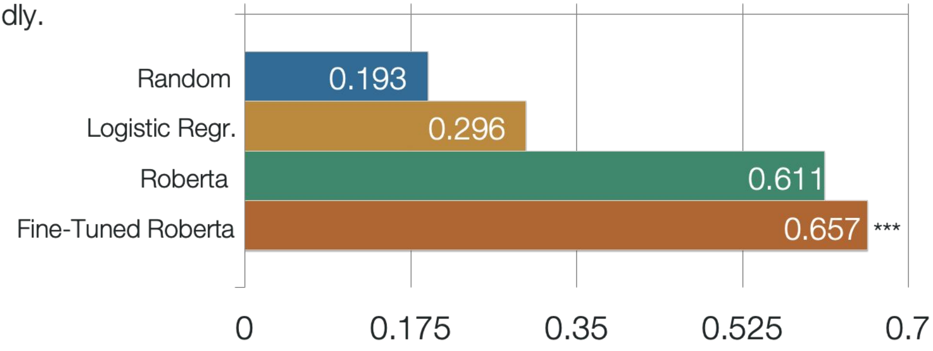
“The proposed #TitleIX rule will exacerbate the negative experiences of undocumented students on campus. Get ready to speak your voice loudly. Go to https://t.co/7kAlhYjeLl to learn how with @endrapeoncampus”



Issue Specific Classifier → ['Victim: Humanitarian']

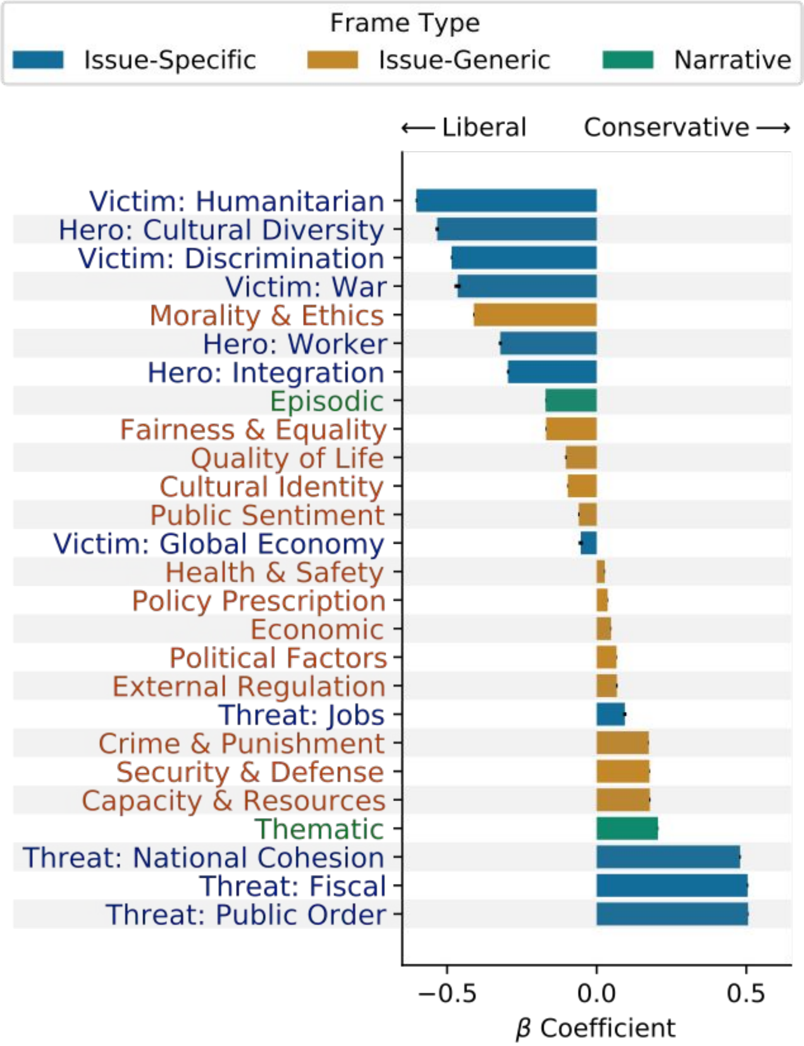
Issue Generic Classifier → ['Quality of Life', 'Public Sentiment', 'Policy Prescription and Evaluation']

Narrative Classifier → ['Episodic']



F1 score by model on test set

Frame Type
Issue-Specific
Issue-Generic
Narrative
⟵ Liberal
Conservative ⟶
Victim: Humanitarian
Hero: Cultural Diversity
Victim: Discrimination
Victim: War
Morality & Ethics
Hero: Worker
Hero: Integration
Episodic
Fairness & Equality
Quality of Life
Cultural Identity
Public Sentiment
Victim: Global Economy
Health & Safety
Policy Prescription
Economic
Political Factors
External Regulation
Threat: Jobs
Crime & Punishment
Security & Defense
Capacity & Resources
Thematic
Threat: National Cohesion
Threat: Fiscal
Threat: Public Order
−0.5
0.0
0.5
β Coefficient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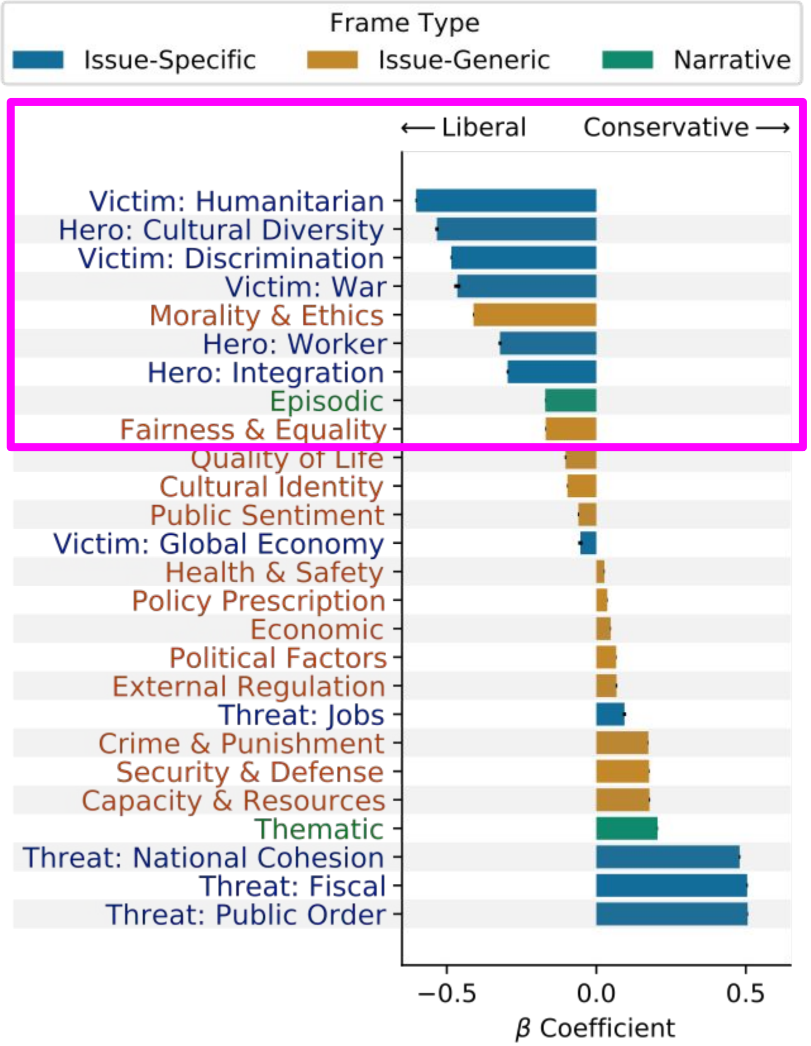
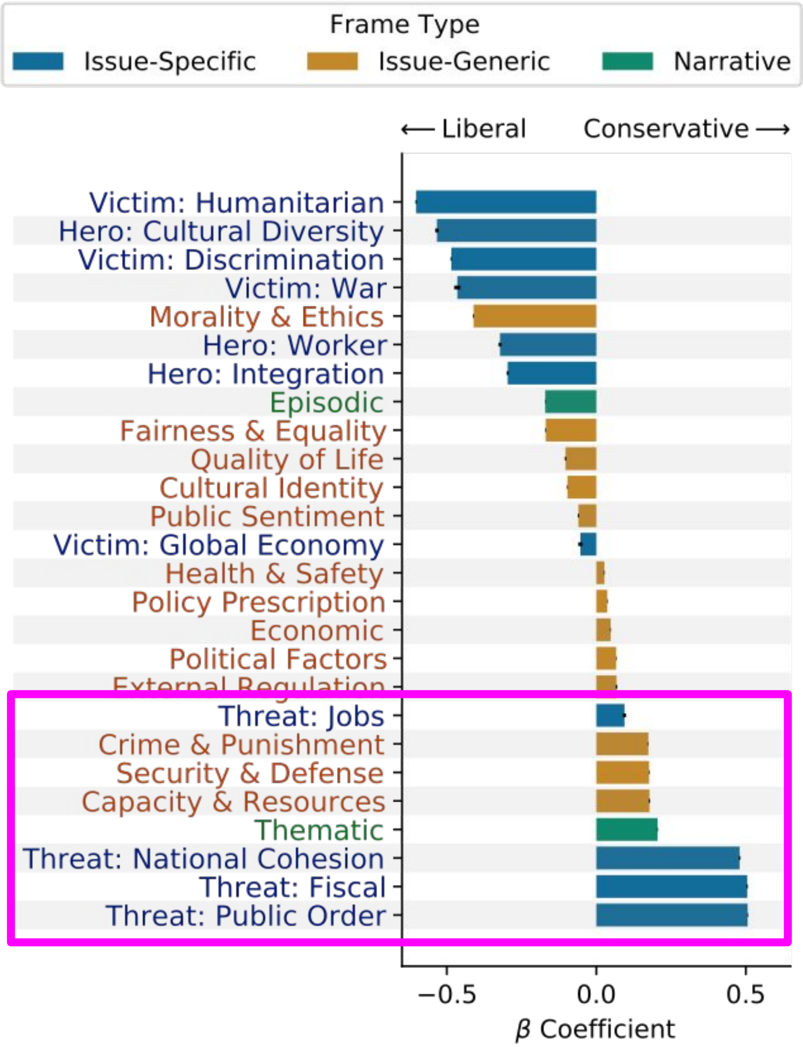


Liberals frame immigrants as **heroes** and **victims**

- Liberals cue ***fairness*** and ***morality***, framing immigrants as ***victims of discrimination*** and ***inhumane*** policies.



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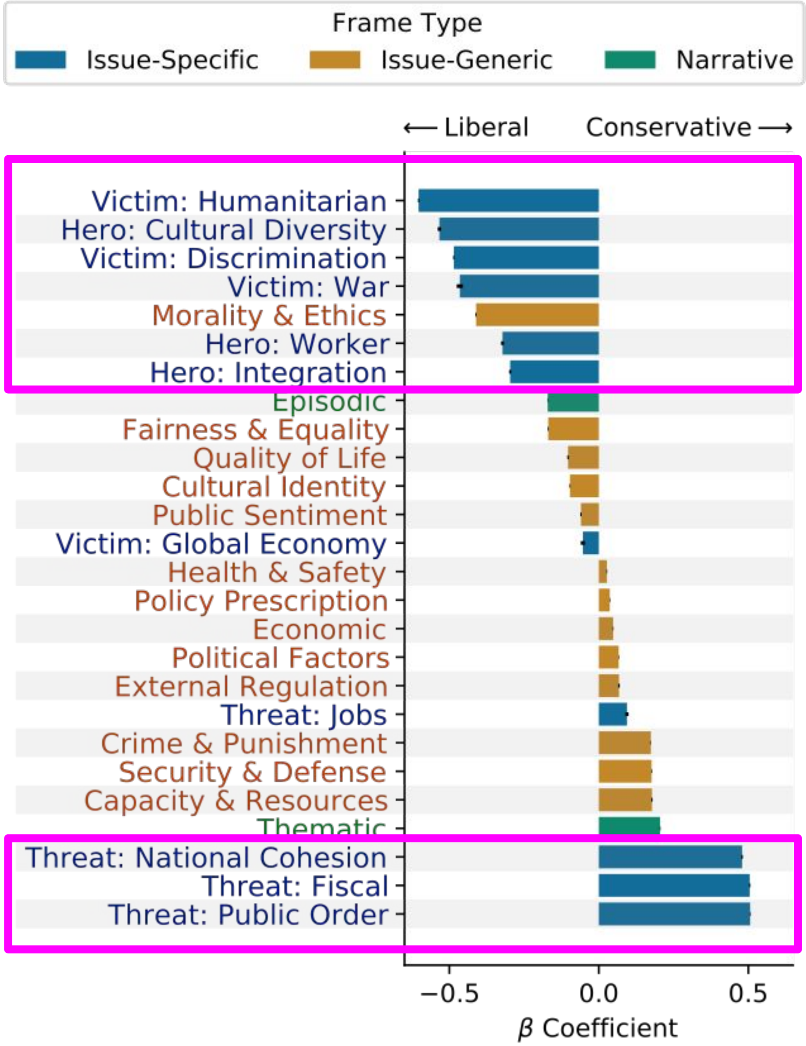
Conservatives frame immigrants as **threats**

- Conservatives cue ***threat to public safety***, ***burden on taxpayers & government programs***

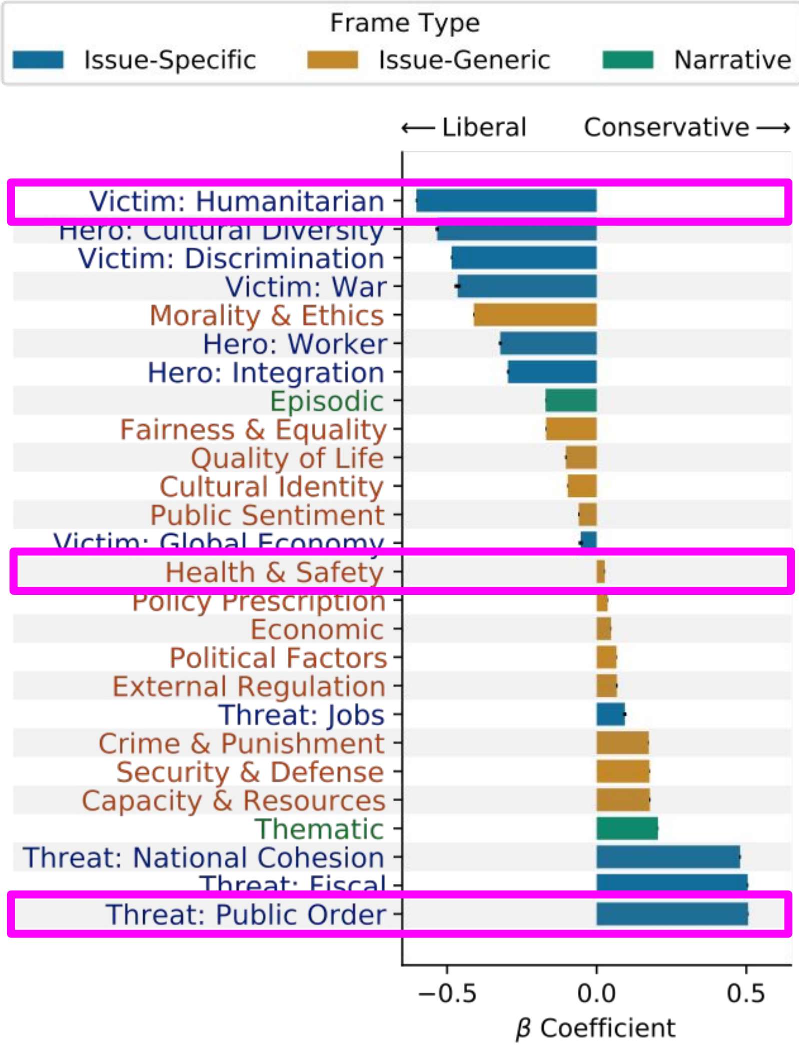


Each frame typology offers value

Issue-generic policy frames can be most accurately detected

but

Immigration-specific frames reveal ideological differences obscured by issue-generic policy frames



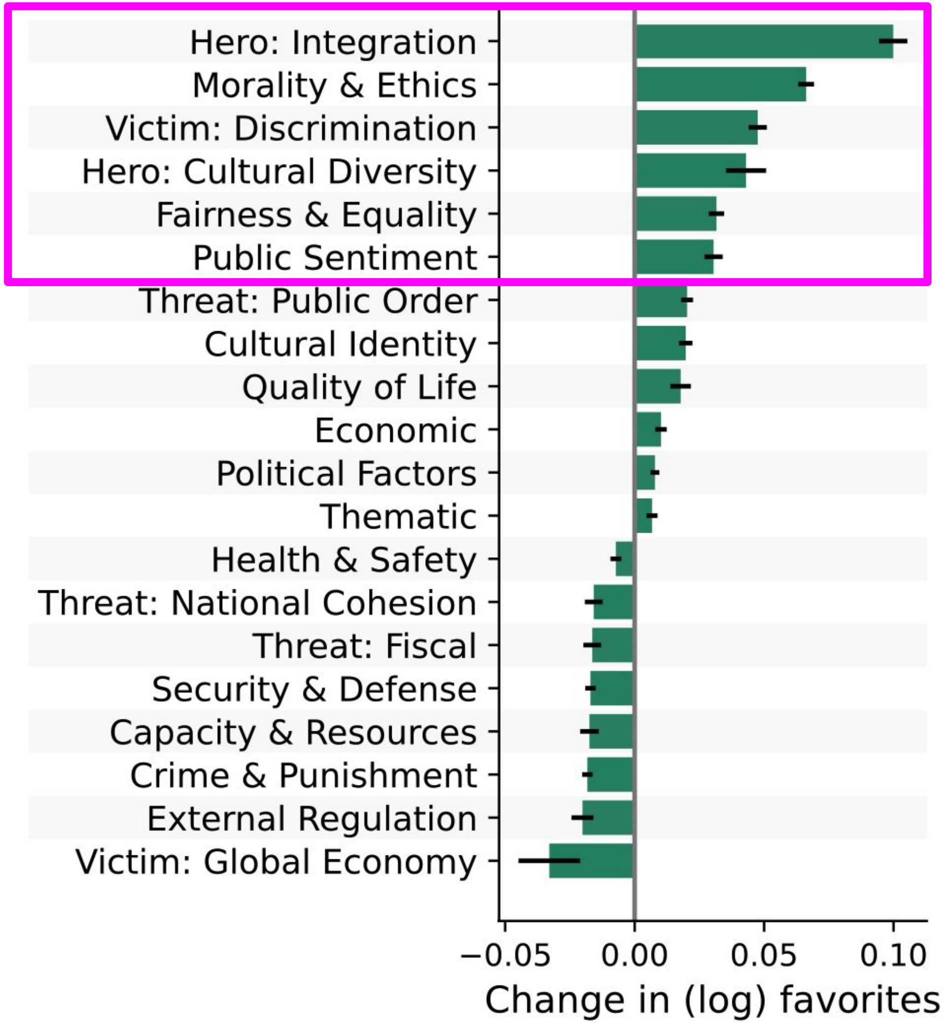
Each frame typology offers value

Issue-generic policy frames can be most accurately detected

but

Immigration-specific frames reveal ideological differences obscured by issue-generic policy frames

(e.g. *health & safety*)



❤

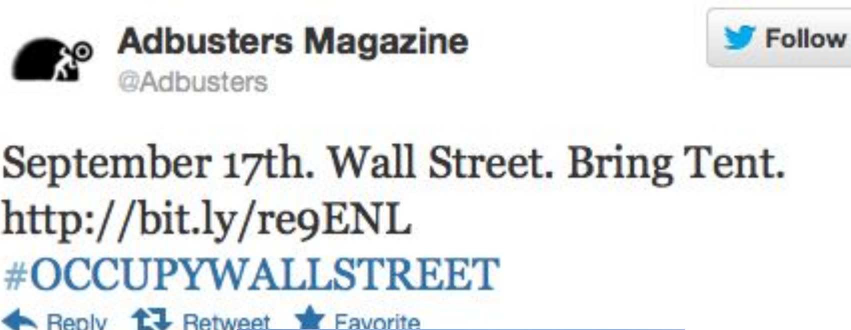
Cultural (*hero: integration*) and **human interest** (*morality, fairness, victim: discrimination*)

Framing Social Movements on Social Media: *Unpacking Diagnostic, Prognostic, and Motivational Strategies*

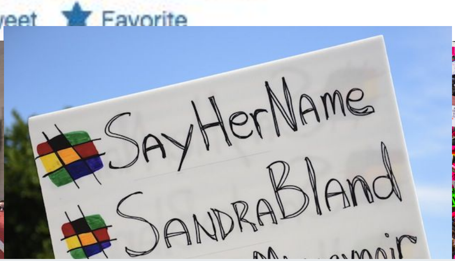
Journal of Quantitative Description: Digital Media (2024)

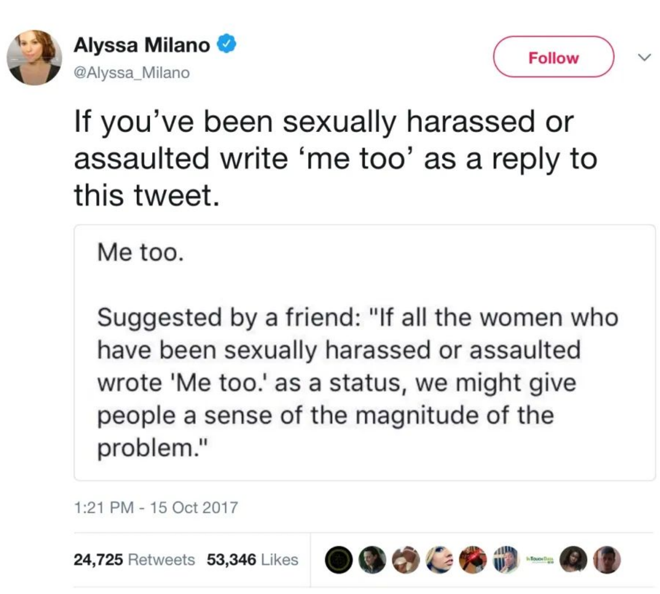
Julia Mendelsohn
Dallas Card

Maya Vijan
Ceren Budak


Adbusters Magazine
@Adbusters

September 17th. Wall Street. Bring Tent.
http://bit.ly/re9ENL
#OCCUPYWALLSTREET



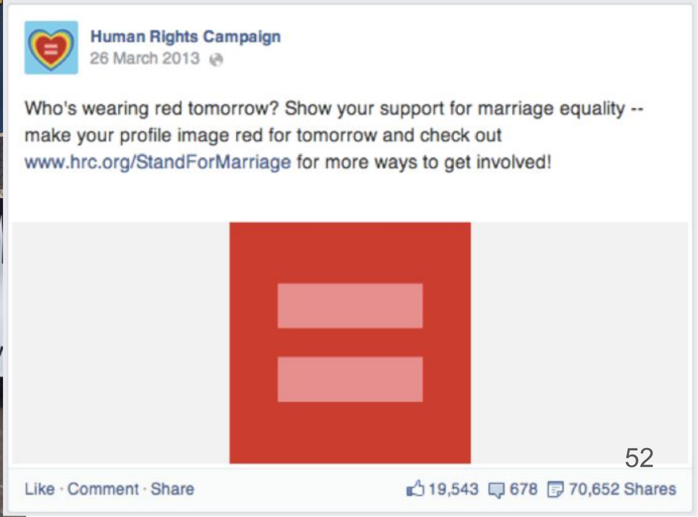

Alyssa Milano
@Alyssa_Milano

If you've been sexually harassed or assaulted write 'me too' as a reply to this tweet.

> Me too.
>
> Suggested by a friend: "If all the women who have been sexually harassed or assaulted wrote 'Me too.' as a status, we might give people a sense of the magnitude of the problem."

1:21 PM - 15 Oct 2017

24,725 Retweets **53,346** Likes


Human Rights Campaign
26 March 2013

Who's wearing red tomorrow? Show your support for marriage equality -- make your profile image red for tomorrow and check out www.hrc.org/StandForMarriage for more ways to get involved!

Like · Comment · Share 19,543 678 70,652 Shares

Social movements create meaning through framing

- Collective action frames are "intended to mobilize potential adherents and constituents, to garner bystander support, and to demobilize antagonists" [Snow & Benford, 1988]
- Effective framing is important (perhaps, necessary) for social movement success [Della Porta & Diani, 2006]

Core Framing Tasks [Snow & Benford, 1988; Benford & Snow, 2000]

Diagnostic

Identifying social problems, their causes, and who to hold responsible

Core Framing Tasks [Snow & Benford, 1988; Benford & Snow, 2000]

Diagnostic

Identifying social problems, their causes, and who to hold responsible

Prognostic

Proposing solutions, plans of attack, strategies for carrying out that plan

Core Framing Tasks [Snow & Benford, 1988; Benford & Snow, 2000]

Diagnostic

Identifying social problems, their causes, and who to hold responsible

Prognostic

Proposing solutions, plans of attack, strategies for carrying out that plan

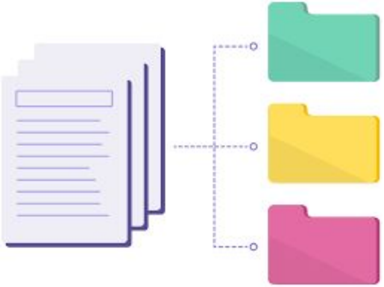
Motivational

Persuading people to participate through "calls to action"

How do people use **diagnostic**, **prognostic**, and **motivational** framing in Twitter messages related to social movements?

Dataset & Annotation

Dataset & Annotation



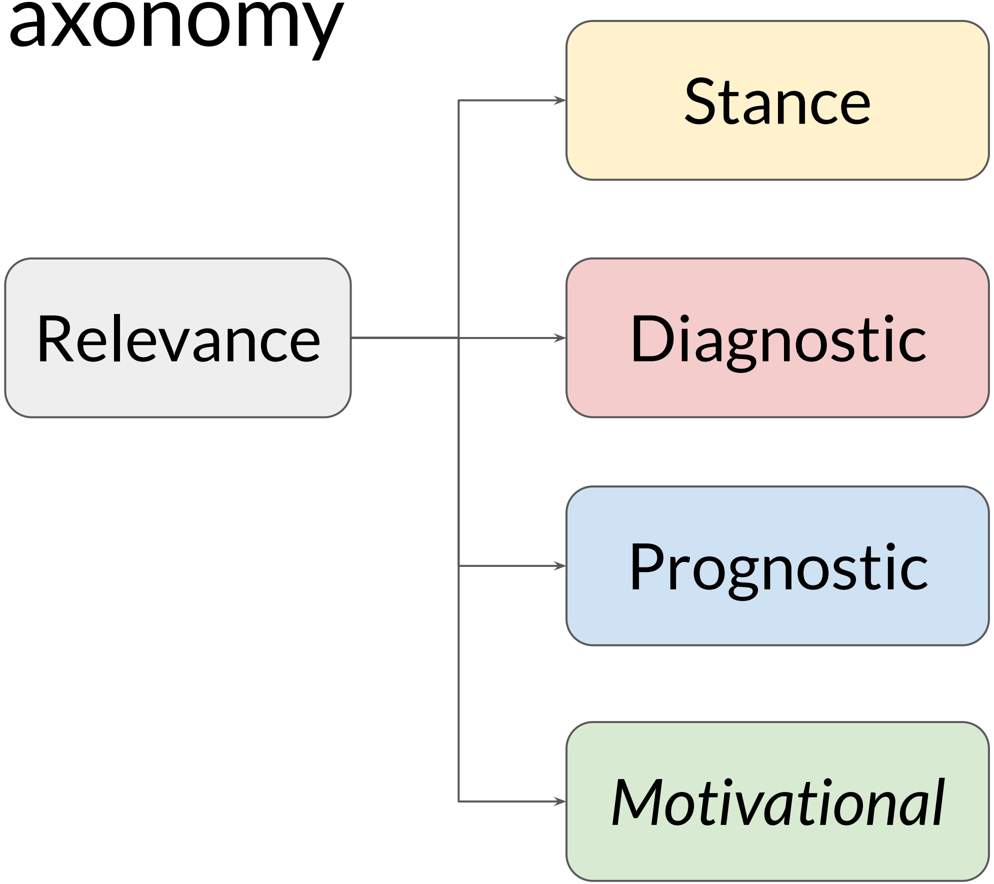
Classification

Dataset & Annotation

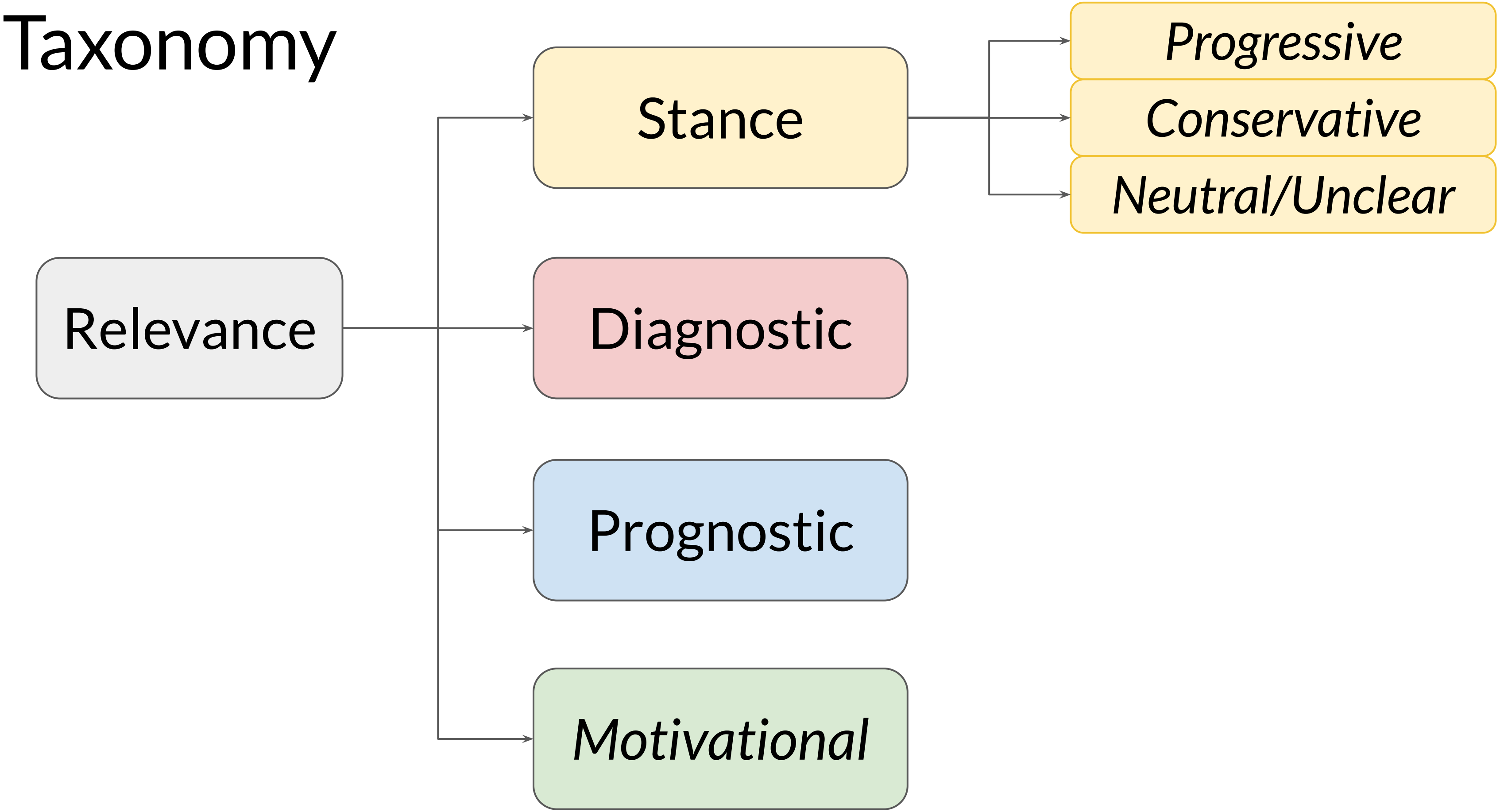
Classification

Sociocultural Context

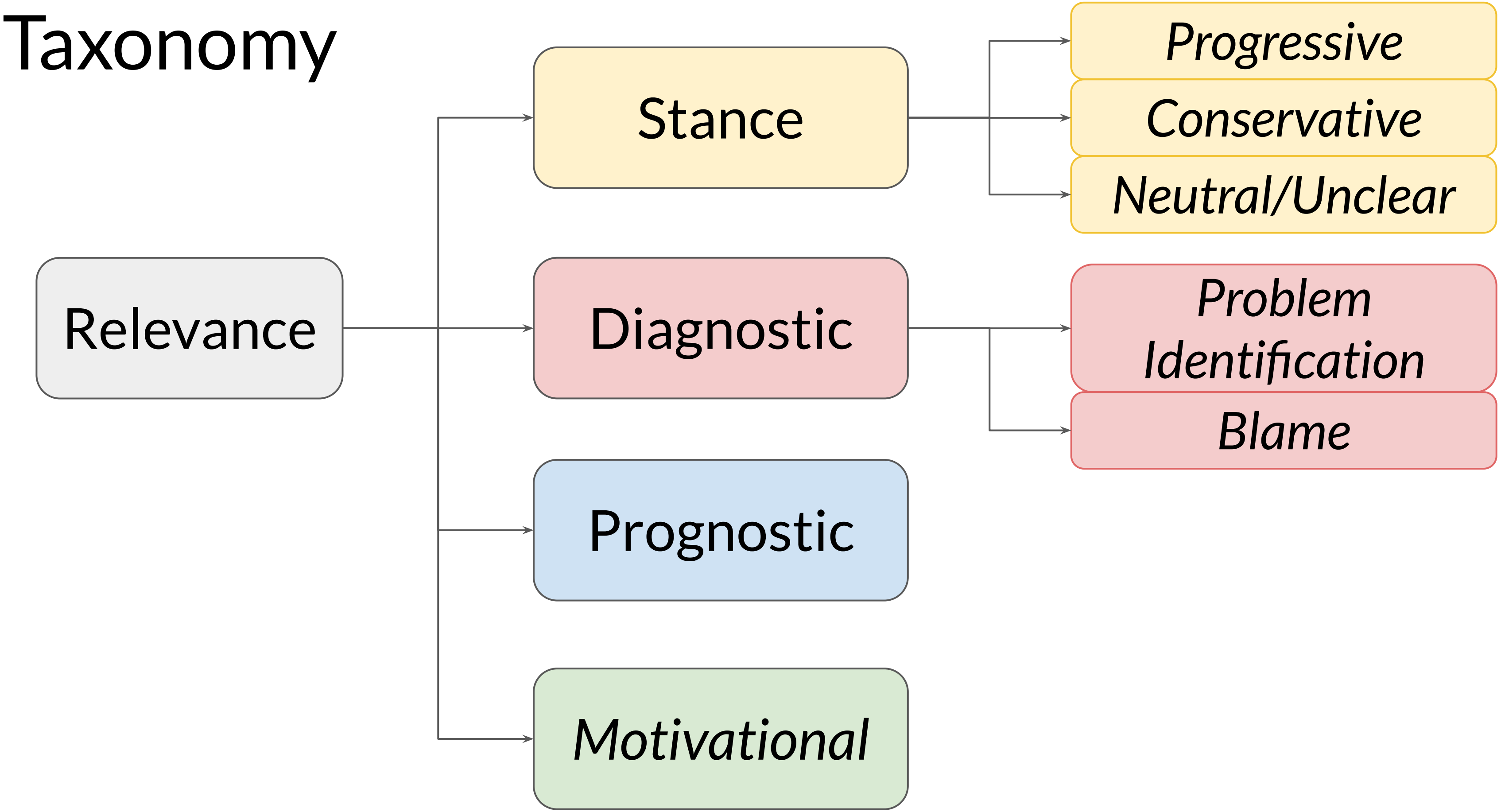
Taxonomy



Taxonomy


Relevance
Stance
Diagnostic
Prognostic
Motivational
Progressive
Conservative
Neutral/Unclear

Taxonomy


Relevance
Stance
Diagnostic
Prognostic
Motivational
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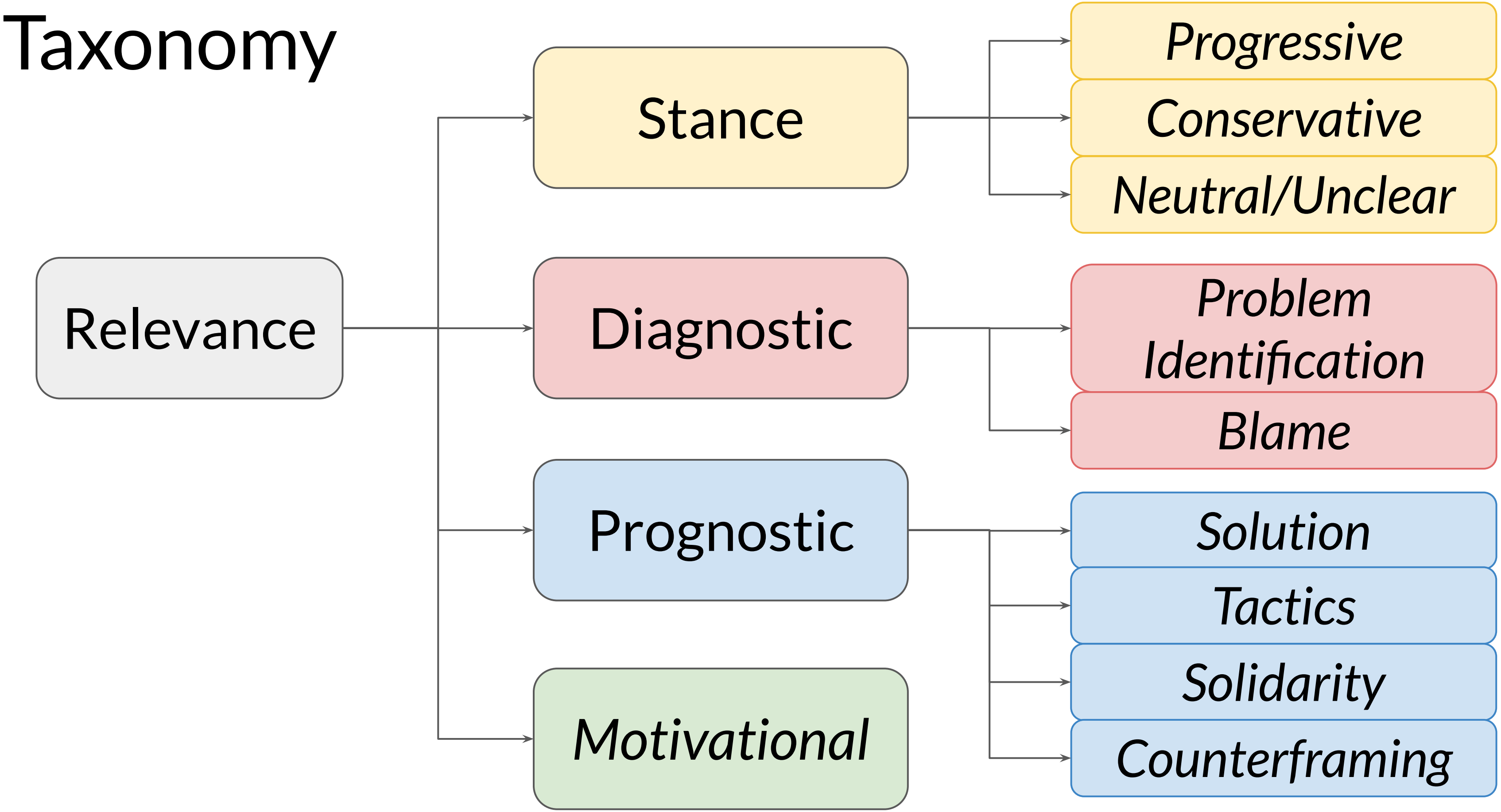
Conservative
Neutral/Unclear
Problem Identification
Blame

Taxonomy


Relevance
Stance
Diagnostic
Prognostic
Motivational
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Conservative
Neutral/Unclear
Problem Identification
Blame
Solution
Tactics
Solidarity
Counterframing

Data Collection [from Bozarth & Budak, 2022]

- Tweets from movements focused on 3 issues: ***guns***, ***immigration***, and ***LGBTQ rights*** from 2018-2019
  - Both progressive & conservative movements
  - 2 months for each issue (1 high protest activity, 1 average level)

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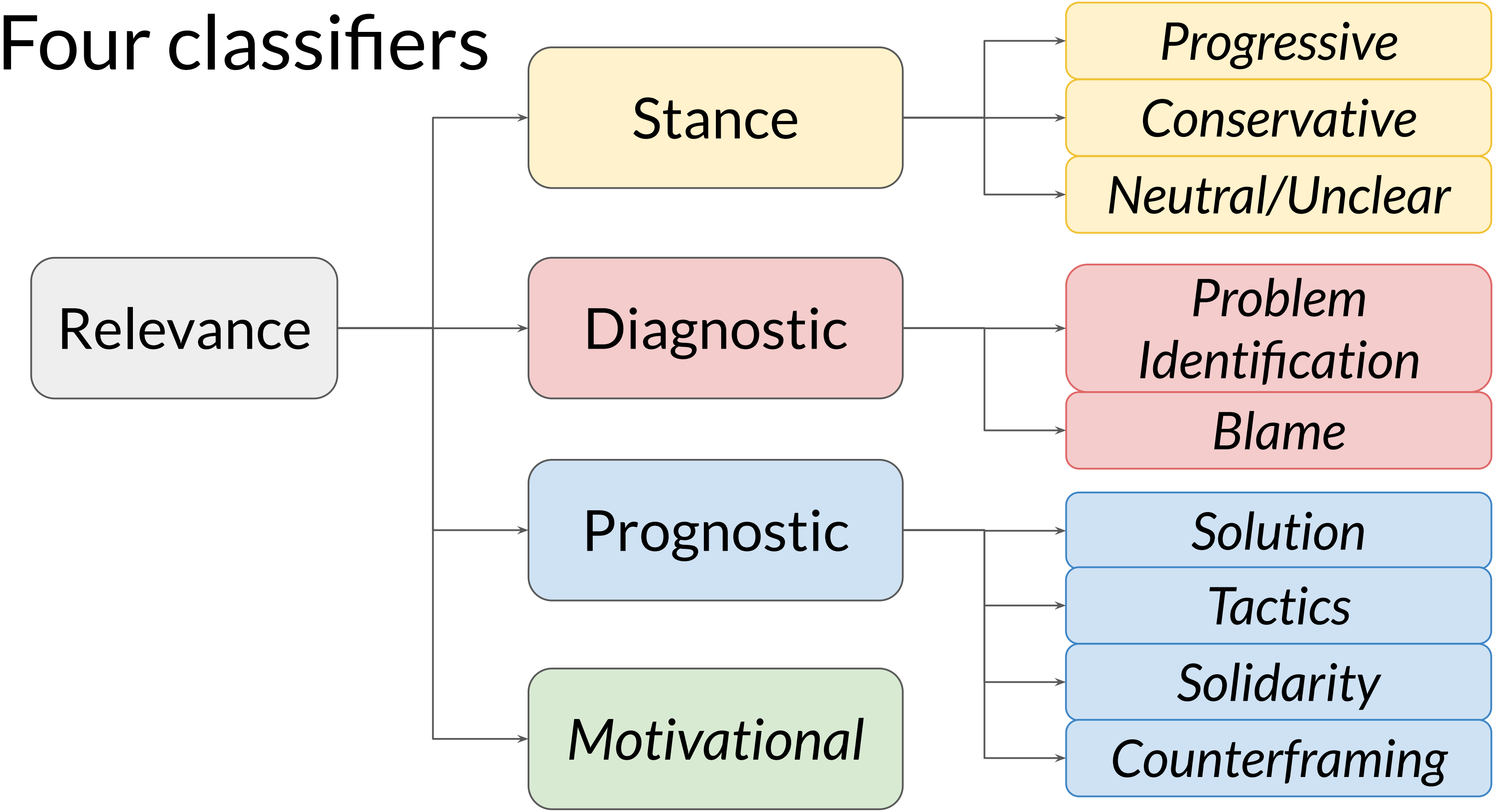
- Tweets from movements focused on 3 issues: ***guns***, ***immigration***, and ***LGBTQ rights*** from 2018-2019
  - Both progressive & conservative movements
  - 2 months for each issue (1 high protest activity, 1 average level)
- **1.85M tweets** across all movements
  - 822K for guns, 763K for immigration, 268K for LGBTQ
- **6,000** manually-annotated tweets
- **4,859 (81%)** coded as *relevant*, labeled for stance & frames

Dataset & Annotation

Classification

Sociocultural Context

Four classifiers

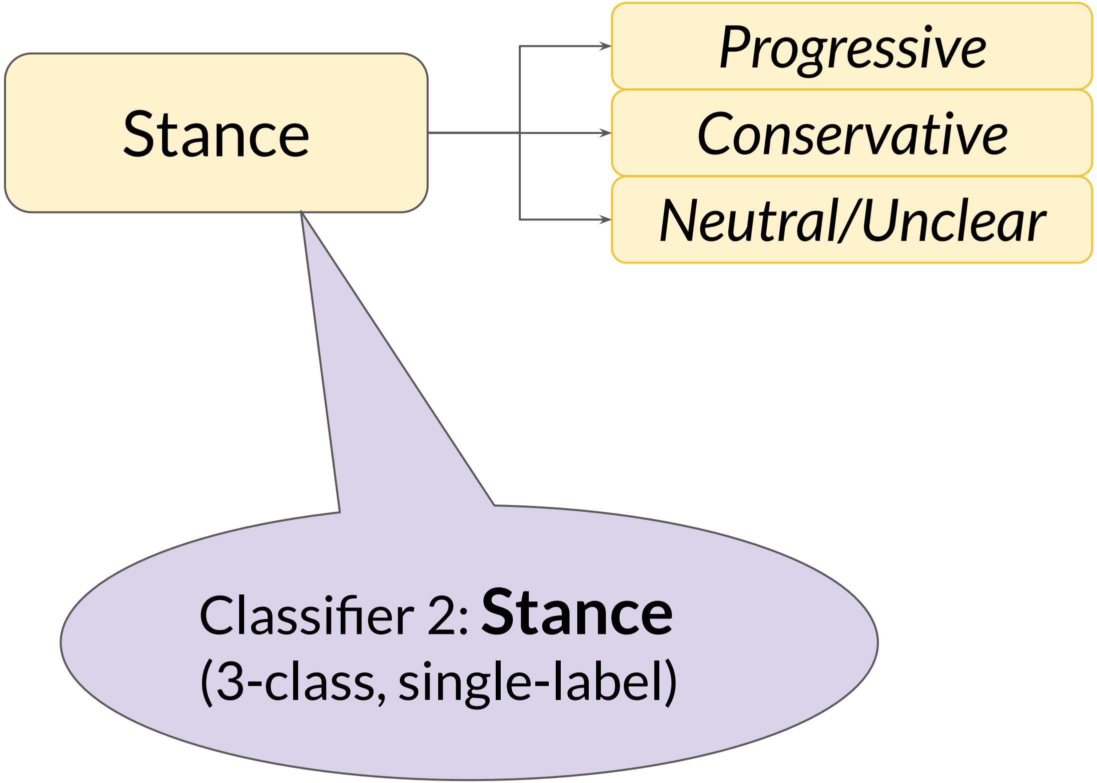


Four classifiers

Relevance

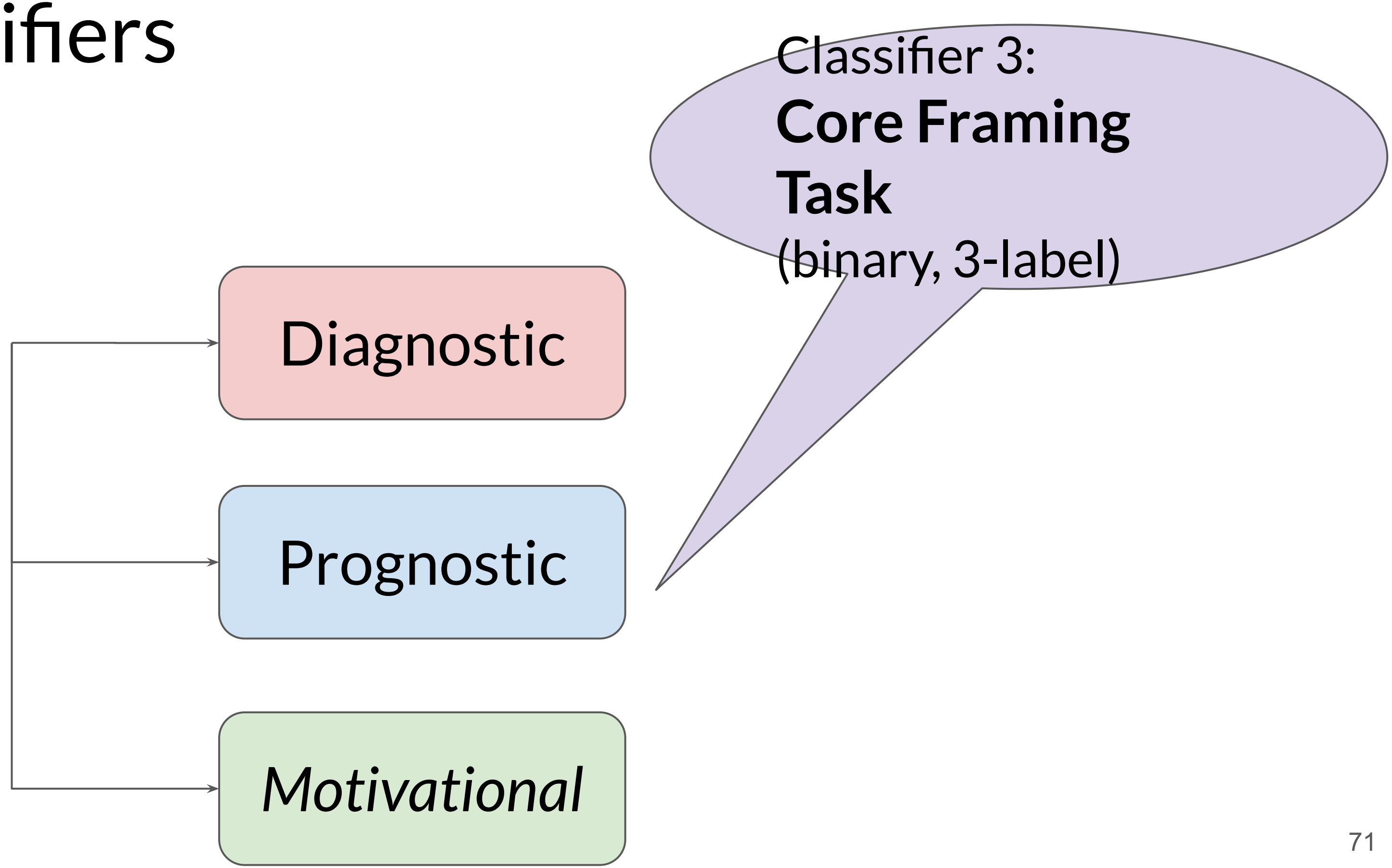
Classifier 1:
Relevance
(binary, single-label)

Four classifiers

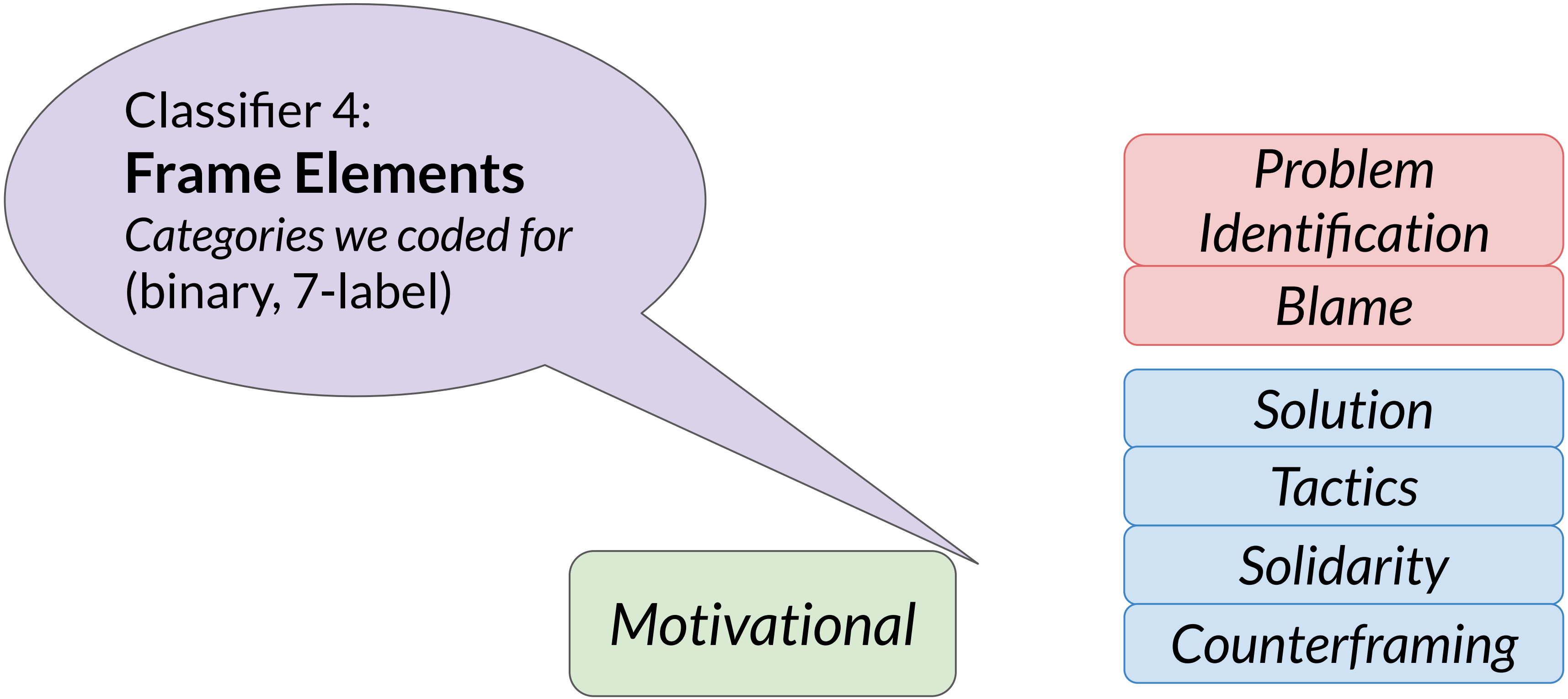


Classifier 2: **Stance**
(3-class, single-label)

Four classifiers



Four classifiers



Classifier 4:

Frame Elements

Categories we coded for

(binary, 7-label)

Motivational

Problem Identification

Blame

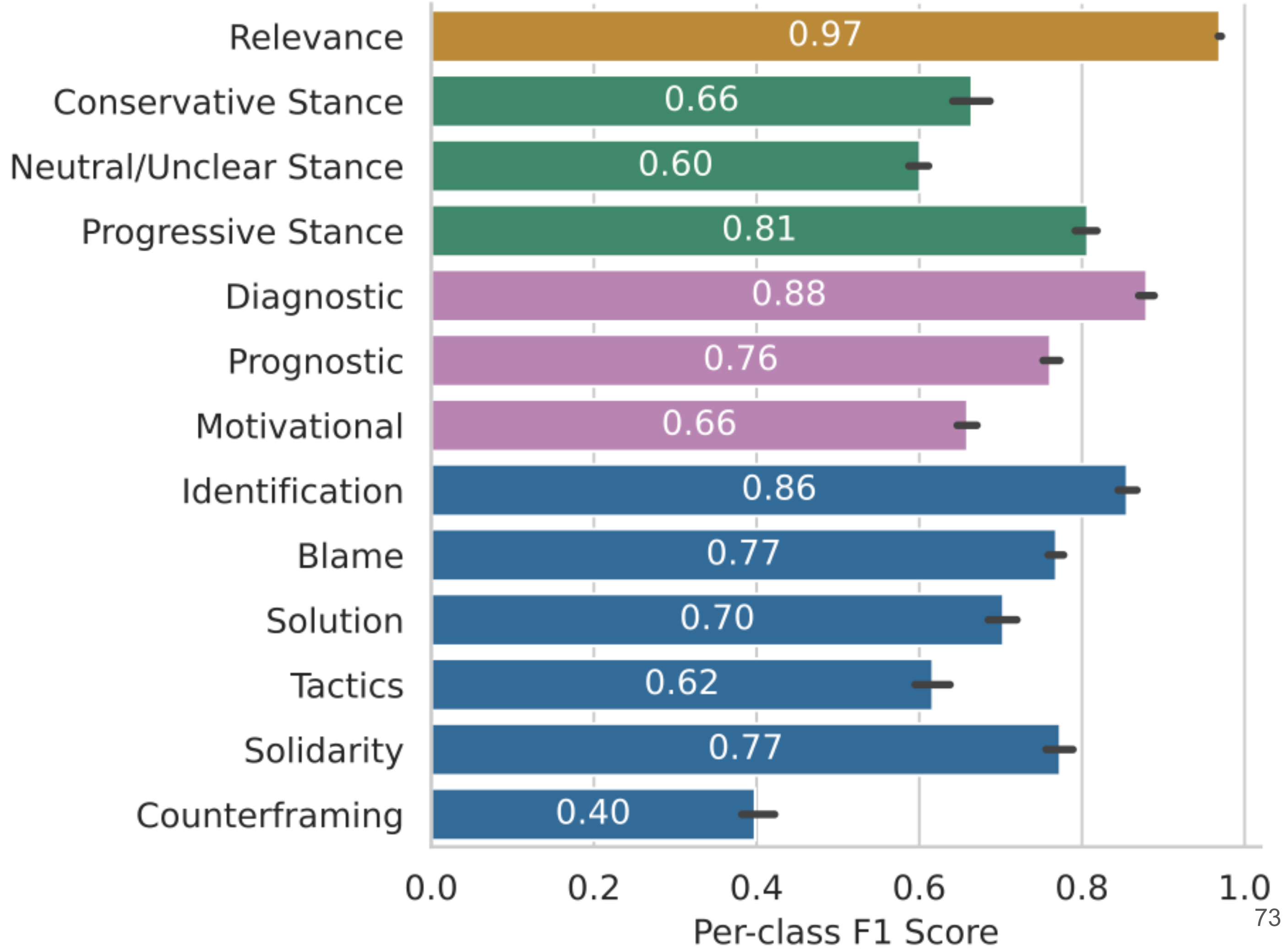
Solution

Tactics

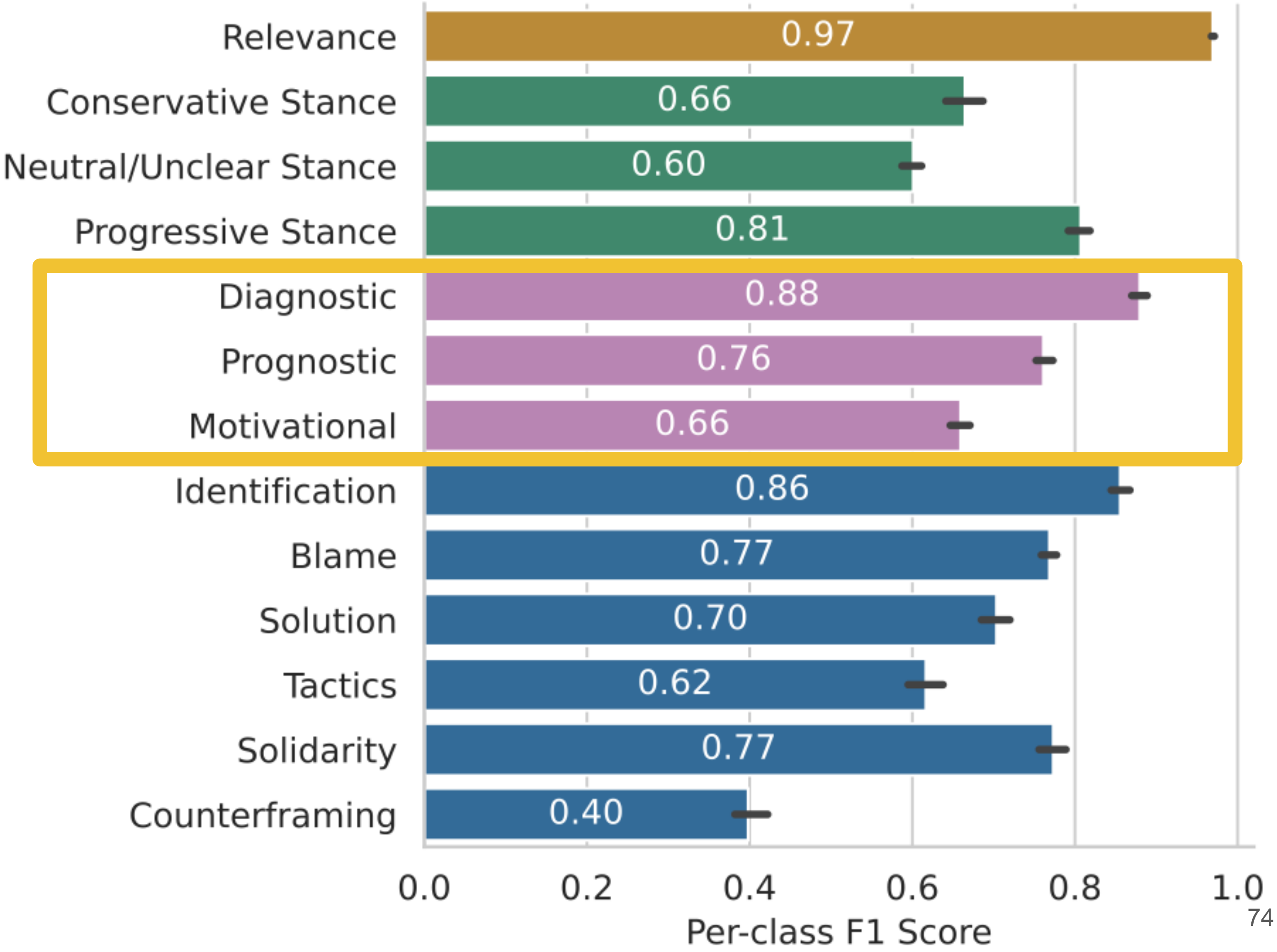
Solidarity

Counterframing

Model Results



Model Results



Dataset & Annotation

Classification

Sociocultural Context

3 movement-level factors

Issue Area
guns, immigration, LGBTQ

Stance
progressive, conservative, neutral

Protest Activity
High or average activity month

2 message-level factors

Author Role
journalist, social mvmt org, other

Interaction Type
broadcast, reply, quote tweet

Logistic regression + marginal effect for diagnostic, prognostic, and motivational frames

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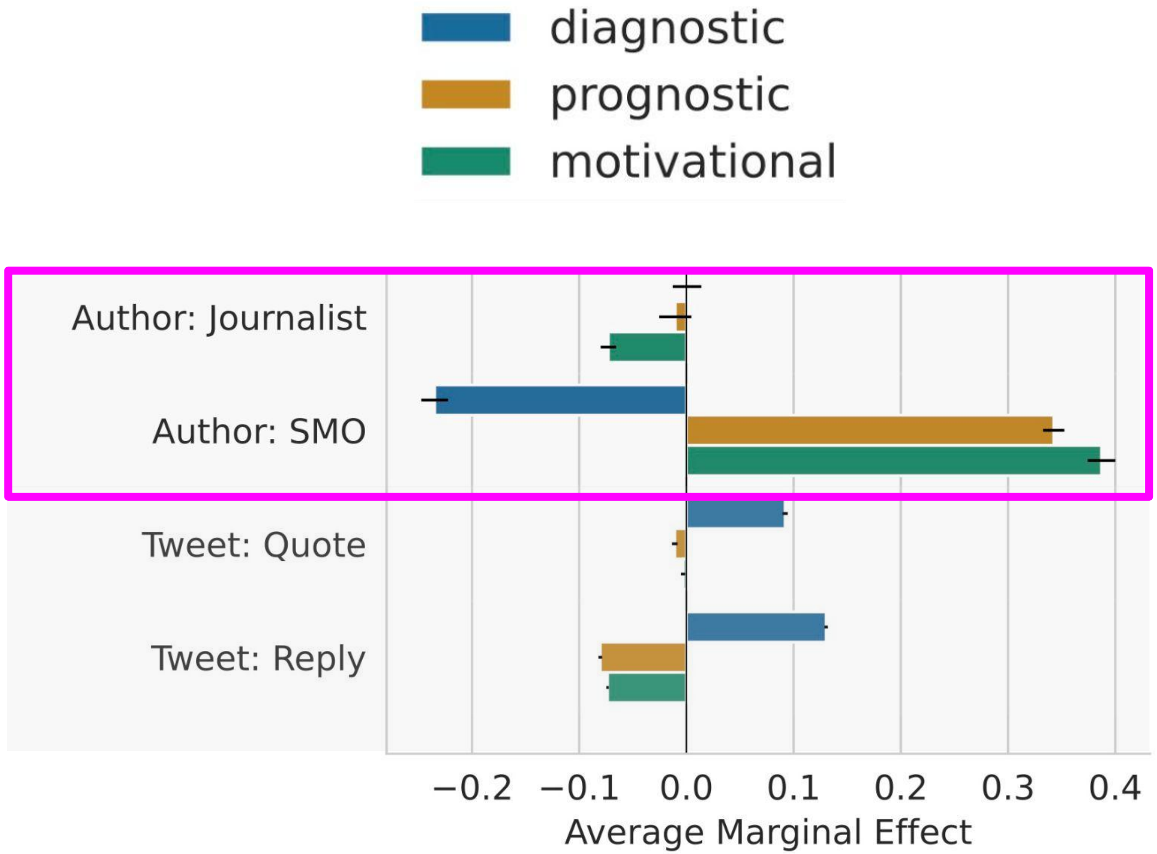
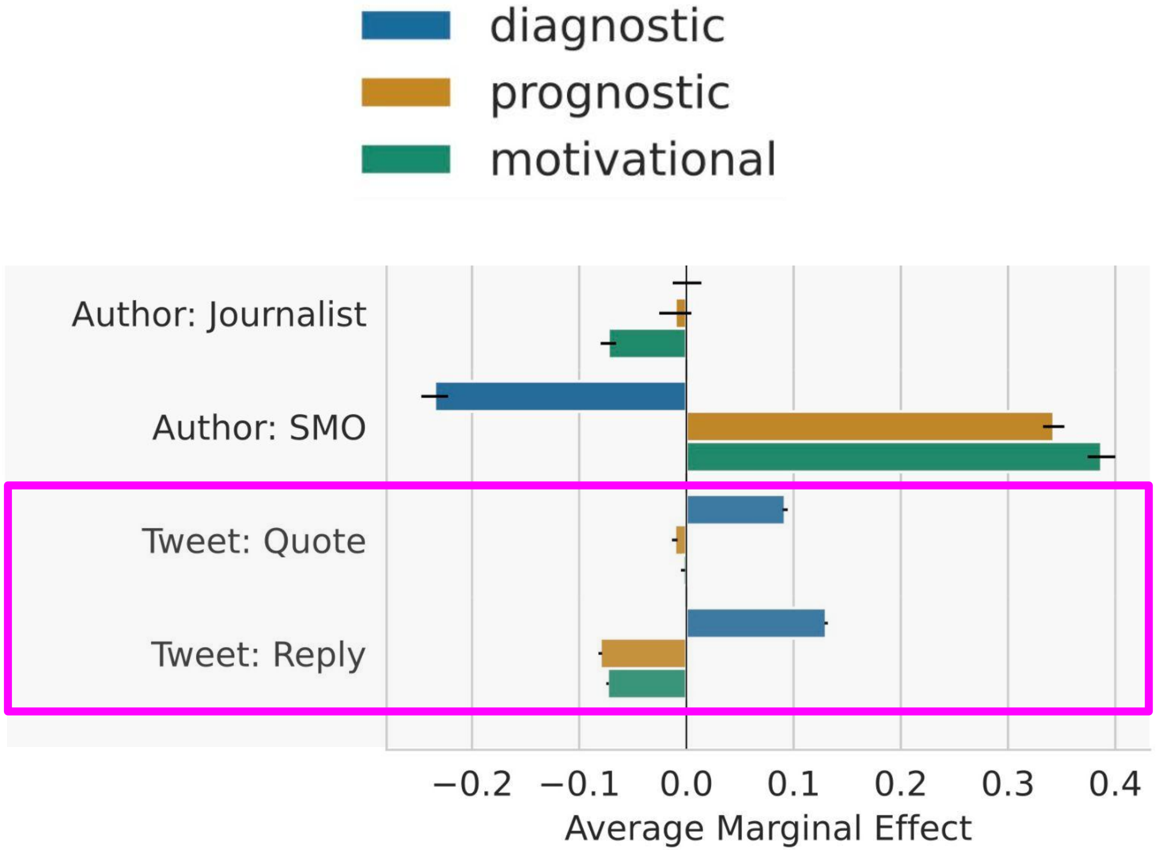


Diagnostic: *not SMOs*

Prognostic: *SMOs*

Motivational: *SMOs*

"*Other*" is reference variable



Diagnostic: *QT & reply*

Prognostic: *QT & broadcast*

Motivational: *QT & broadcast*

**broadcast* is reference variable

Framing Social Movements on Social Media:

Unpacking Diagnostic, Prognostic, and Motivational Strategies

Dataset & Annotation

Classification

Sociocultural Context

- *Not discussed today: linguistic analysis within each frame category*

I spent *many months* manually annotating immigration-related tweets (over 10K tweets across papers!) and saw some really weird stuff….

Soros

Kalergi Plan

globalists

NWO

coastal elites

shadowy cabal

I saw tons of tweets covertly blaming Jews for the immigration “crisis”, but nobody seemed to notice

From Dogwhistles to Bullhorns: Unveiling Coded Rhetoric with Language Models

Association for Computational Linguistics (ACL), 2023

Julia Mendelsohn

Ronan Le Bras

Yejin Choi

Maarten Sap

The **cosmopolitan elite** look down on the common affections that once bound this nation together: things like place and national feeling and religious faith…The **cosmopolitan** agenda has driven both Left and Right…It's time we ended the **cosmopolitan** experiment and recovered the promise of the republic.
~Josh Hawley (R-MO), 2019

The **Jews** look down on the common affections that once bound this nation together: things like place and national feeling and religious faith…The **Jewish** agenda has driven both Left and Right…It’s time we ended the **Jewish** experiment and recovered the promise of the republic. ~*Josh Hawley (R-MO), 2019*

Cosmopolitan is a dogwhistle

Dogwhistles send one message to an outgroup and a second (often taboo, controversial, or inflammatory) message to an in-group [Henderson & McCready, 2018]

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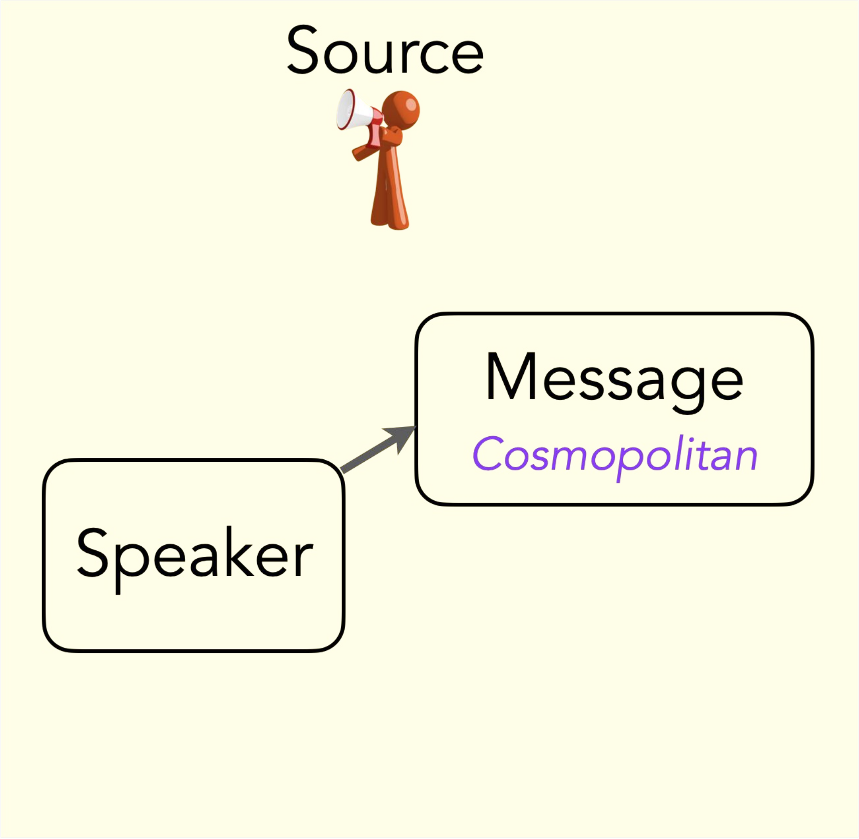
- In-group knows **cosmopolitan** → **Jewish**

Cosmopolitan is a dogwhistle

Dogwhistles send one message to an outgroup and a second (often taboo, controversial, or inflammatory) message to an in-group [Henderson & McCready, 2018]

- In-group knows **cosmopolitan** → **Jewish**
- But Hawley has **plausible deniability**. He never says **Jewish**!

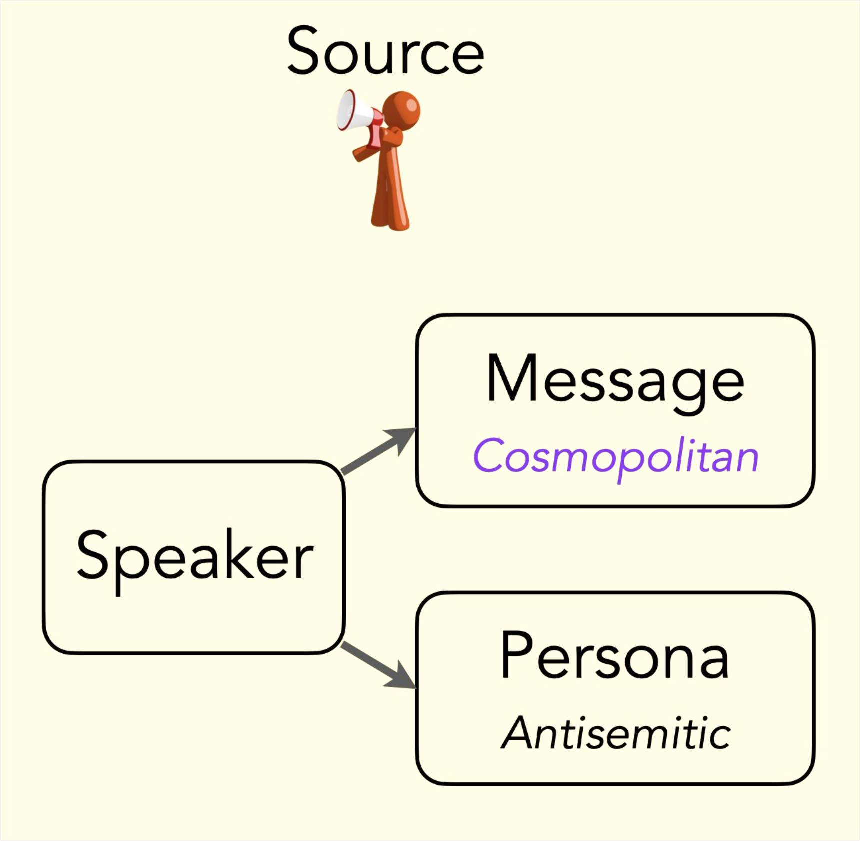


Source

Message

Cosmopolitan

Speaker



Source

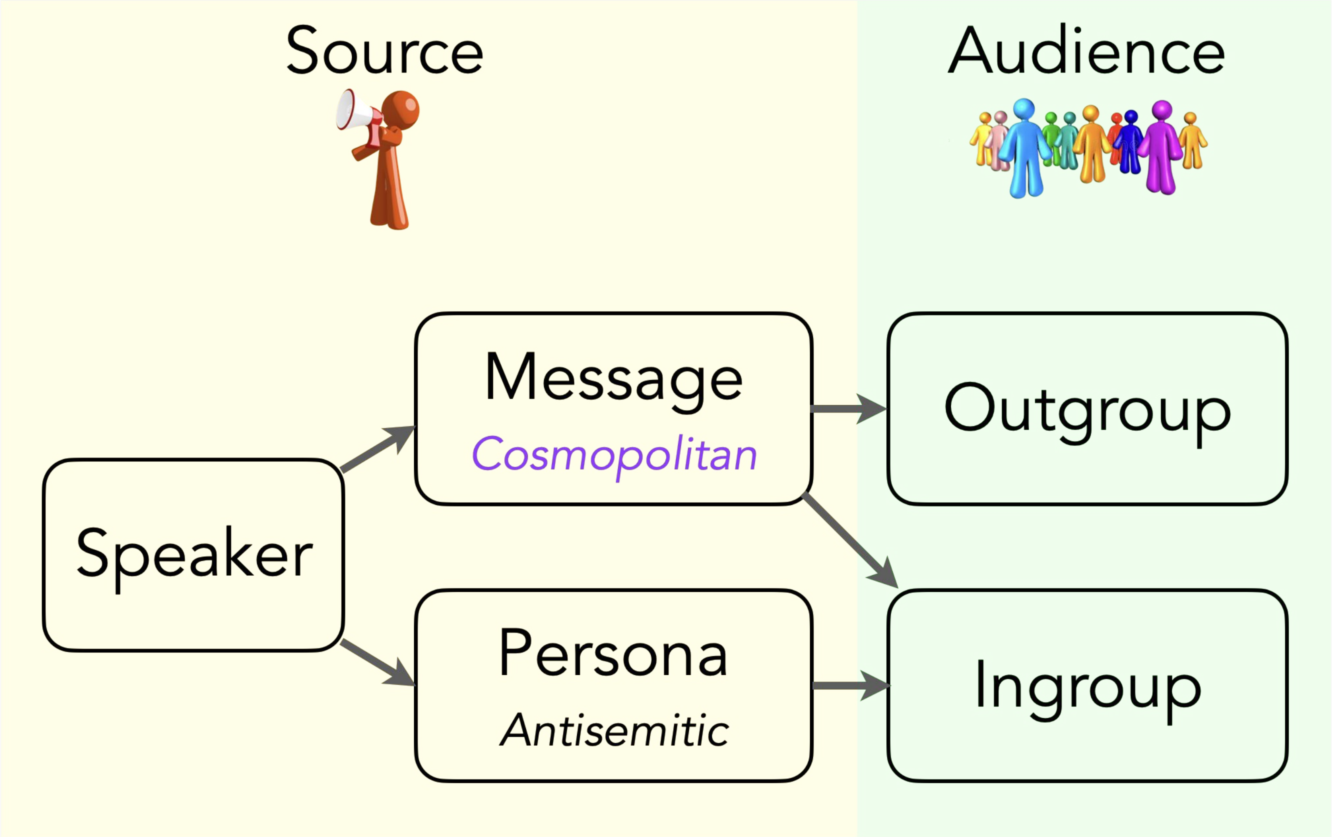
Speaker

Message

Cosmopolitan

Persona

Antisemitic



Source

Audience

Speaker

Message

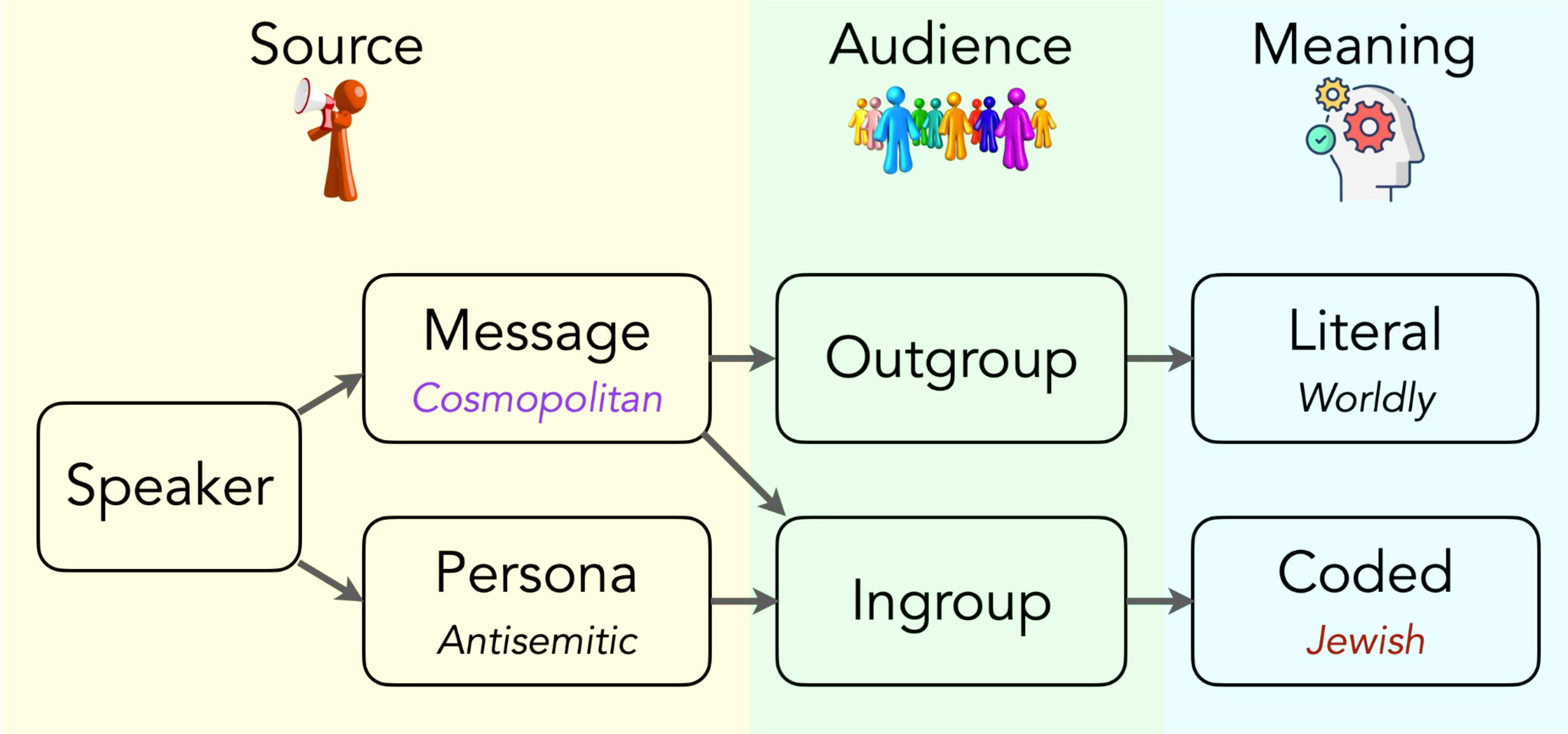
Cosmopolitan

Persona

Antisemitic

Outgroup

Ingroup



Source

Audience

Meaning

Speaker

Message

Cosmopolitan

Persona

Antisemitic

Outgroup

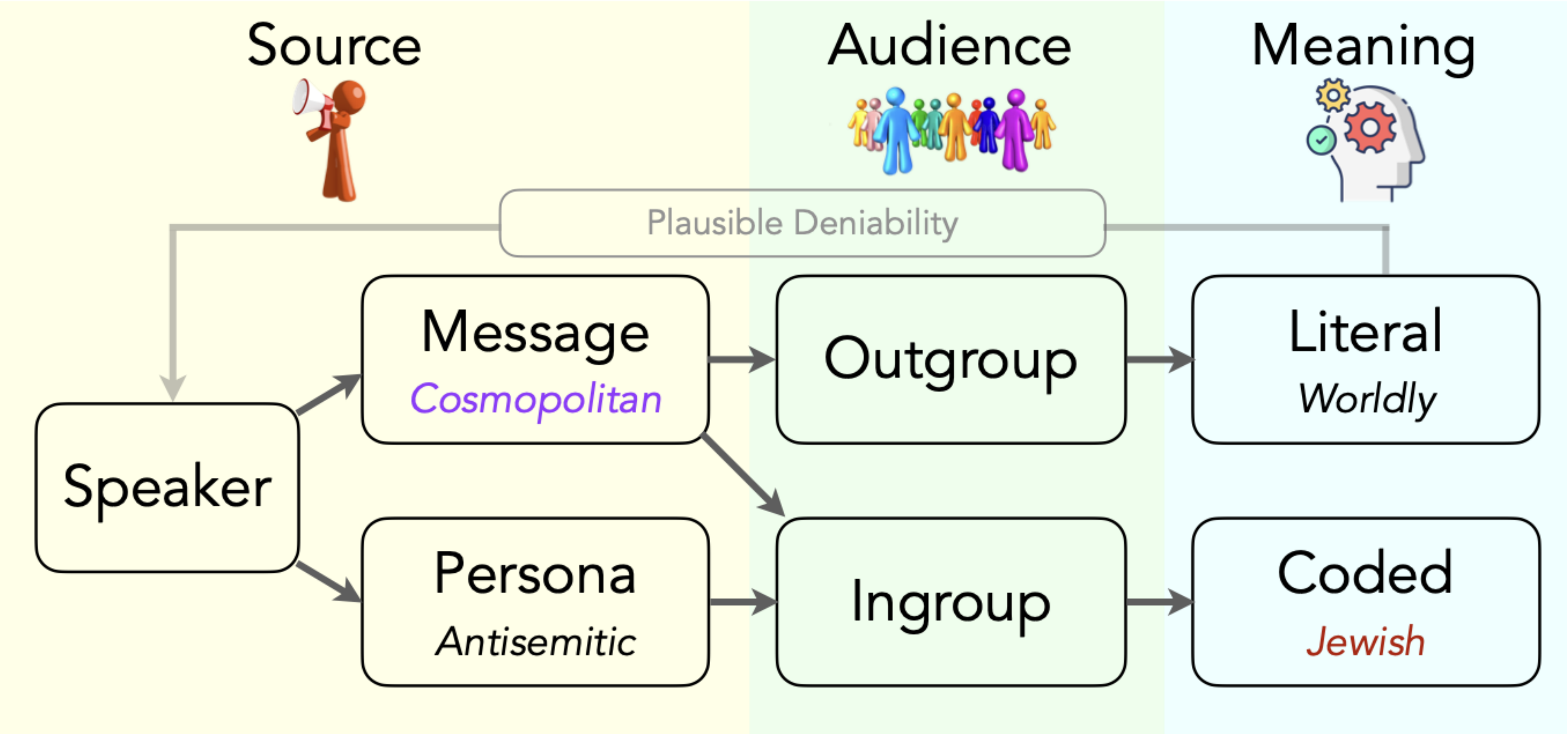
Ingroup

Literal

Worldly

Coded

Jewish


Source
Audience
Meaning
Plausible Deniability
Message
Cosmopolitan
Outgroup
Literal
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Coded
Jewish

Understanding dogwhistles is important

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Meaning depends on speaker identity, context, and *multiple* audiences

[Henderson & McCready, 2018]

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Meaning depends on speaker identity, context, and *multiple* audiences
[Henderson & McCready, 2018]

Mechanism of political influence and persuasion
[Mendelberg, 2001;
Haney López, 2014]

Understanding dogwhistles is important

Meaning depends on speaker identity, context, and *multiple* audiences
[Henderson & McCready, 2018]

Mechanism of political influence and persuasion
[Mendelberg, 2001;
Haney López, 2014]

Enables hate while evading content moderation
[Bhat & Klein, 2020]

Typology & glossary with rich contextual information

Typology & glossary with rich contextual information

Evaluate dogwhistle recognition in language models

Typology & glossary with rich contextual information

Evaluate dogwhistle recognition in language models

Show how dogwhistles evade content moderation

Typology & glossary with rich contextual information

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Searching for dogwhistles

- Sources: academic, media, blogs, wikis
  - Expressions identified as dogwhistles or coded language

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- **340** terms and symbols (incl. emojis)
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  - English, US-centric

Searching for dogwhistles

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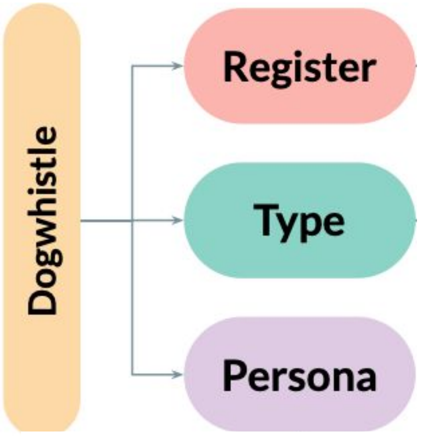
- **340** terms and symbols (incl. emojis)
  - Over **70** each for racist, transphobic, antisemitic
  - English, US-centric
- Limitation: we cannot ensure that our search is complete or figure out what's missing.
  - Can large language models help? Stay tuned…

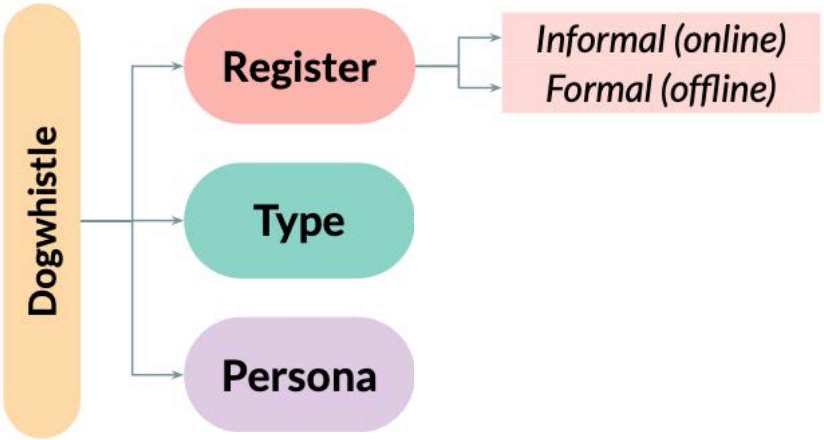


Dogwhistle

Register

Type

Persona



Dogwhistle

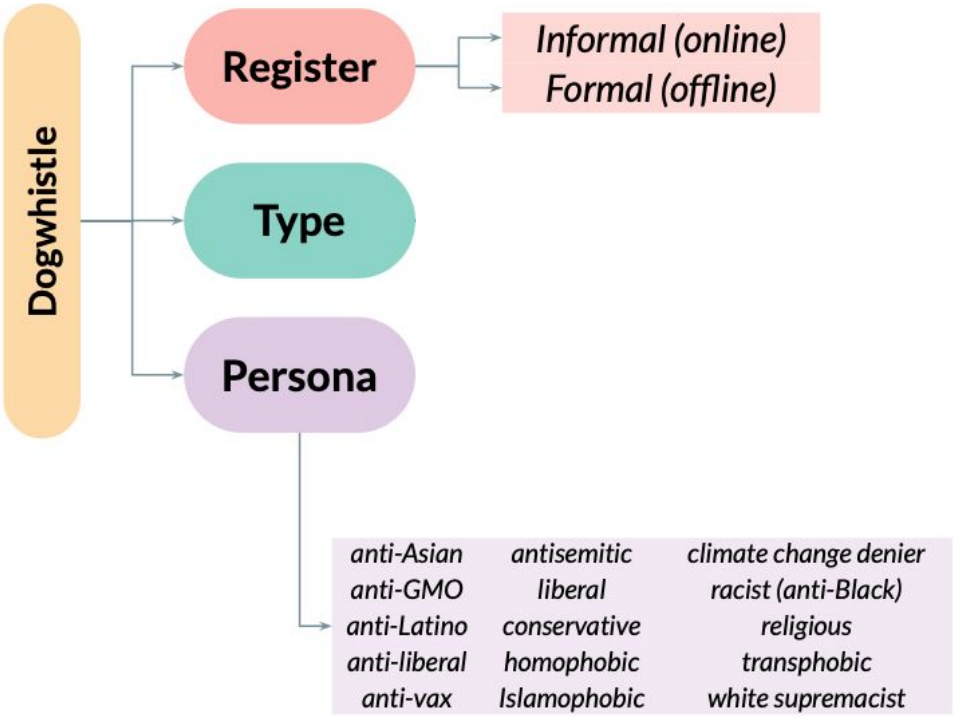
Register

Informal (online)

Formal (offline)

Type

Persona



Dogwhistle

Register

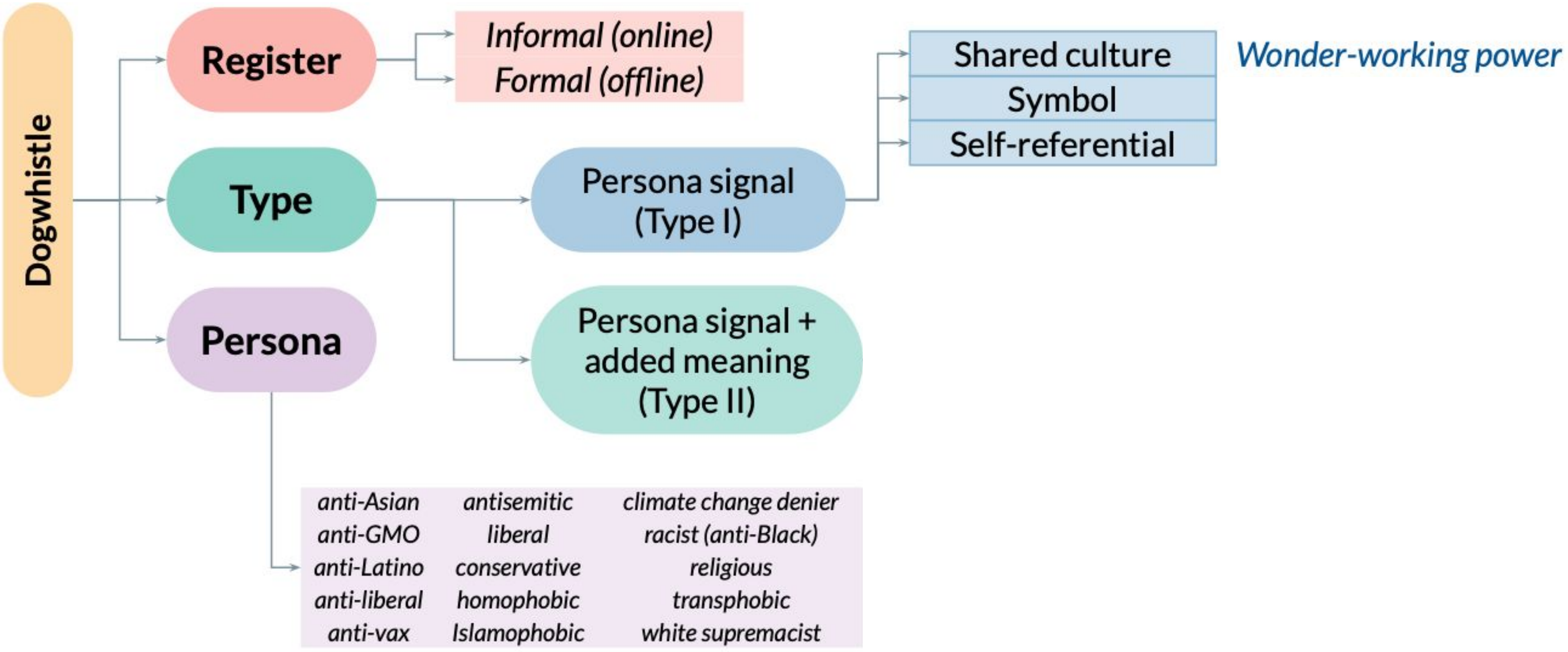
Informal (online)

Formal (offline)

Type

Persona

anti-Asian
anti-GMO
anti-Latino
anti-liberal
anti-vax
antisemitic
liberal
conservative
homophobic
Islamophobic
climate change denier
racist (anti-Black)
religious
transphobic
white supremacist



Dogwhistle

Register

Informal (online)

Formal (offline)

Type

Persona signal (Type I)

Shared culture

Symbol

Self-referential

Wonder-working power

Persona signal + added meaning (Type II)

Persona

anti-Asian
anti-GMO
anti-Latino
anti-liberal
anti-vax
antisemitic
liberal
conservative
homophobic
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religious
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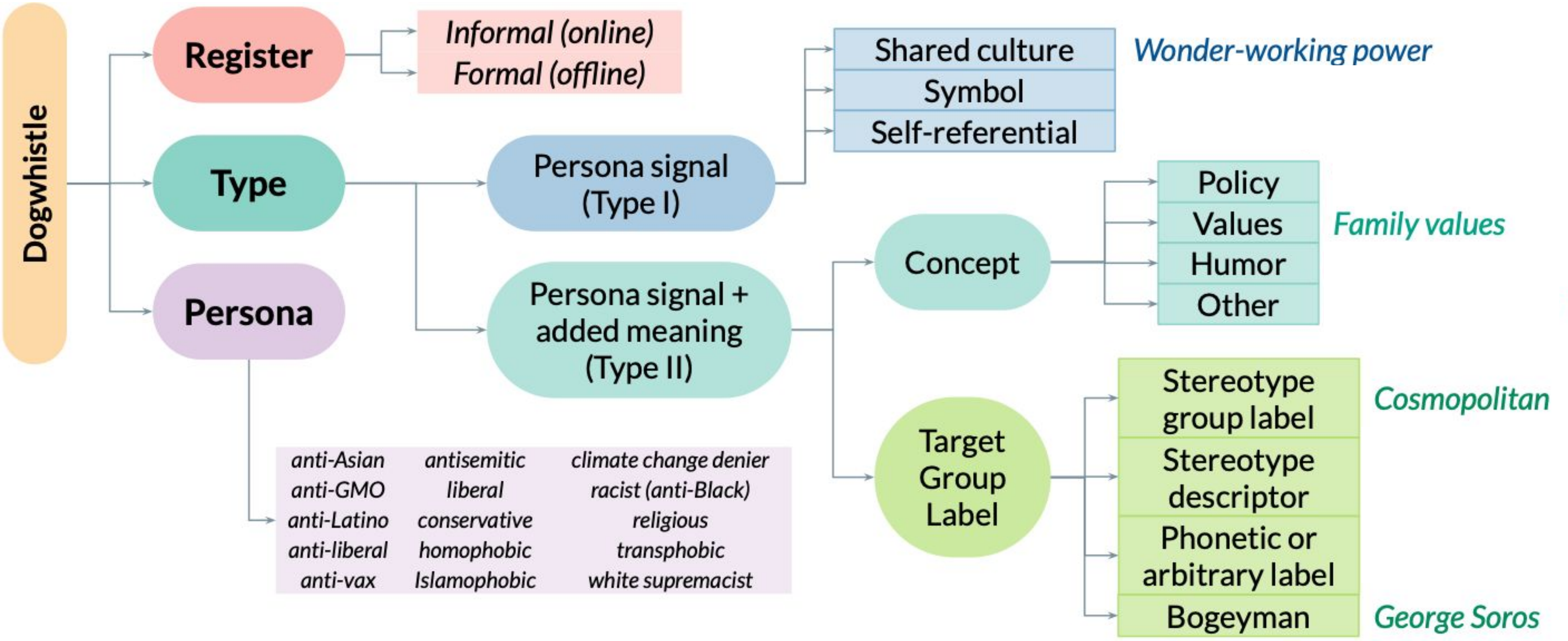
*Type I and Type II distinction from Henderson & McCready (2018)



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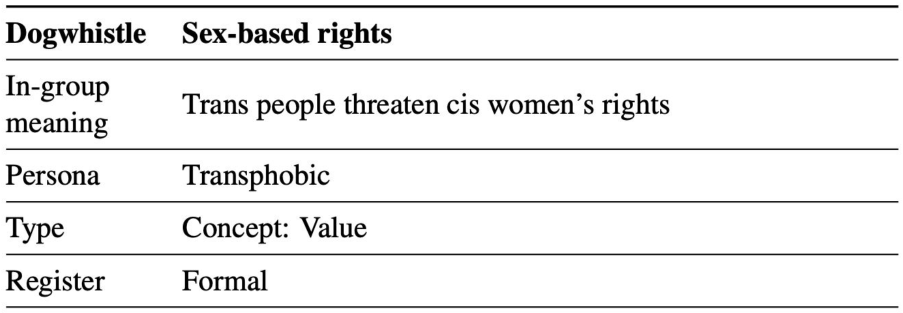
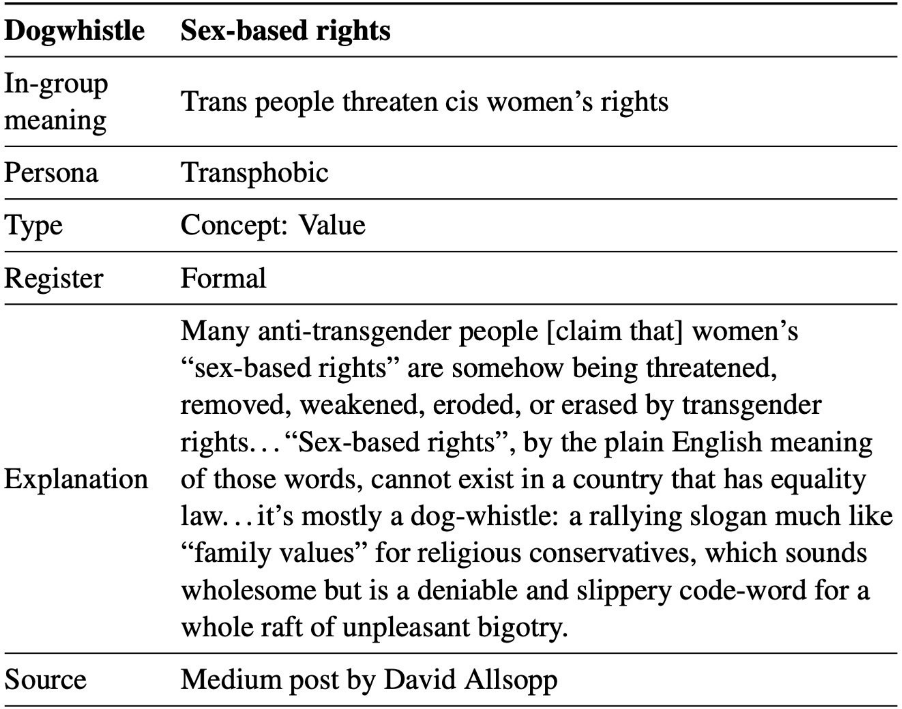


Dogwhistle	**Sex-based rights**
In-group meaning	Trans people threaten cis women’s rights
Persona	Transphobic
Type	Concept: Value
Register	Formal



Dogwhistle	**Sex-based rights**
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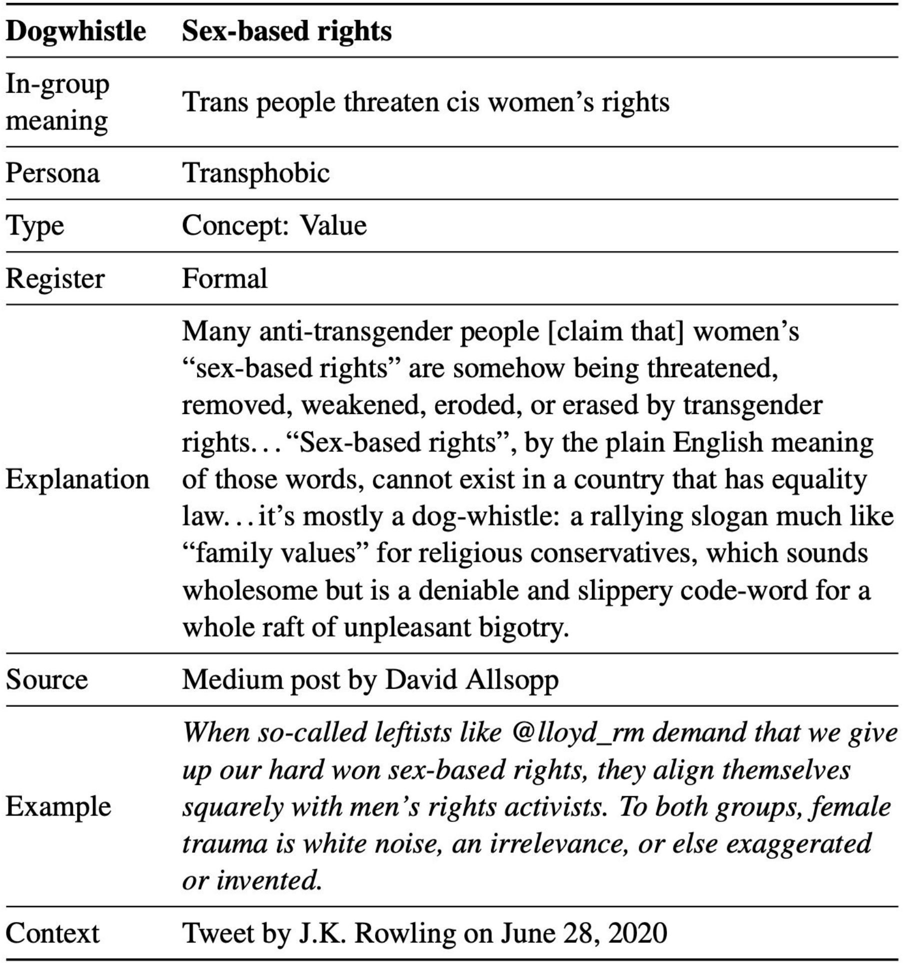
Explanation	Many anti-transgender people [claim that] women’s “sex-based rights” are somehow being threatened, removed, weakened, eroded, or erased by transgender rights. . . “Sex-based rights”, by the plain English meaning of those words, cannot exist in a country that has equality law. . . it’s mostly a dog-whistle: a rallying slogan much like “family values” for religious conservatives, which sounds wholesome but is a deniable and slippery code-word for a whole raft of unpleasant bigotry.
Source	Medium post by David Allsopp



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Source	Medium post by David Allsopp
Example	*When so-called leftists like @lloyd_rm demand that we give up our hard won sex-based rights, they align themselves squarely with men’s rights activists. To both groups, female trauma is white noise, an irrelevance, or else exaggerated or invented.*
Context	Tweet by J.K. Rowling on June 28, 2020

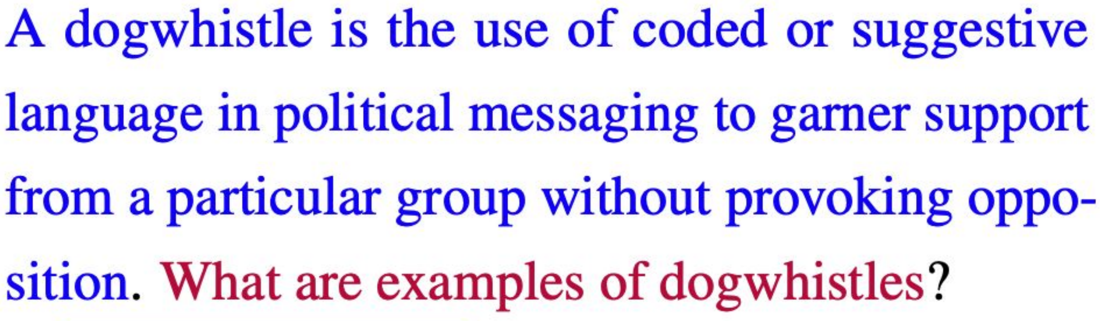
Typology & glossary with rich contextual information

Evaluate dogwhistle recognition in language models

Show how dogwhistles evade content moderation

Surfacing dogwhistles with GPT-3

Our Prompt

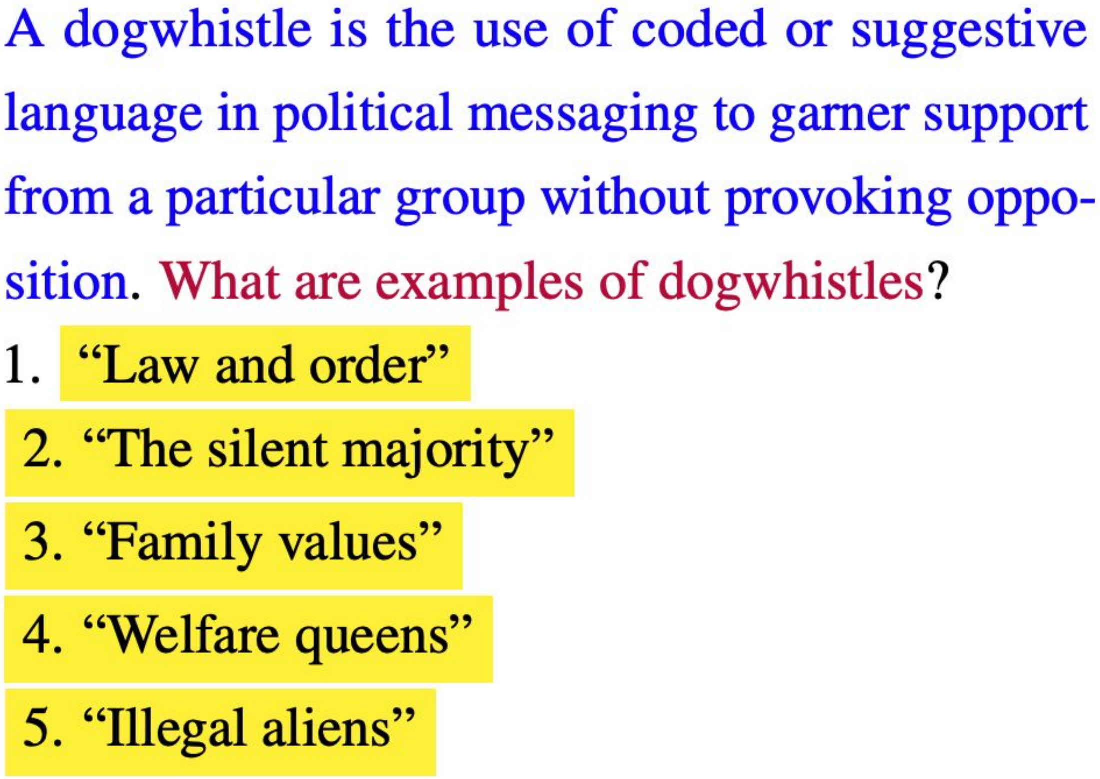


A dogwhistle is the use of coded or suggestive language in political messaging to garner support from a particular group without provoking opposition. What are examples of dogwhistles?

Surfacing dogwhistles with GPT-3

Our Prompt

GPT-3 Completion



A dogwhistle is the use of coded or suggestive language in political messaging to garner support from a particular group without provoking opposition. What are examples of dogwhistles?

1. “Law and order”
2. “The silent majority”
3. “Family values”
4. “Welfare queens”
5. “Illegal aliens”

Surfacing dogwhistles with GPT-3

- Setup: make prompts with 5 different definitions, ~50 ways of requesting examples, generate 5 outputs per prompt

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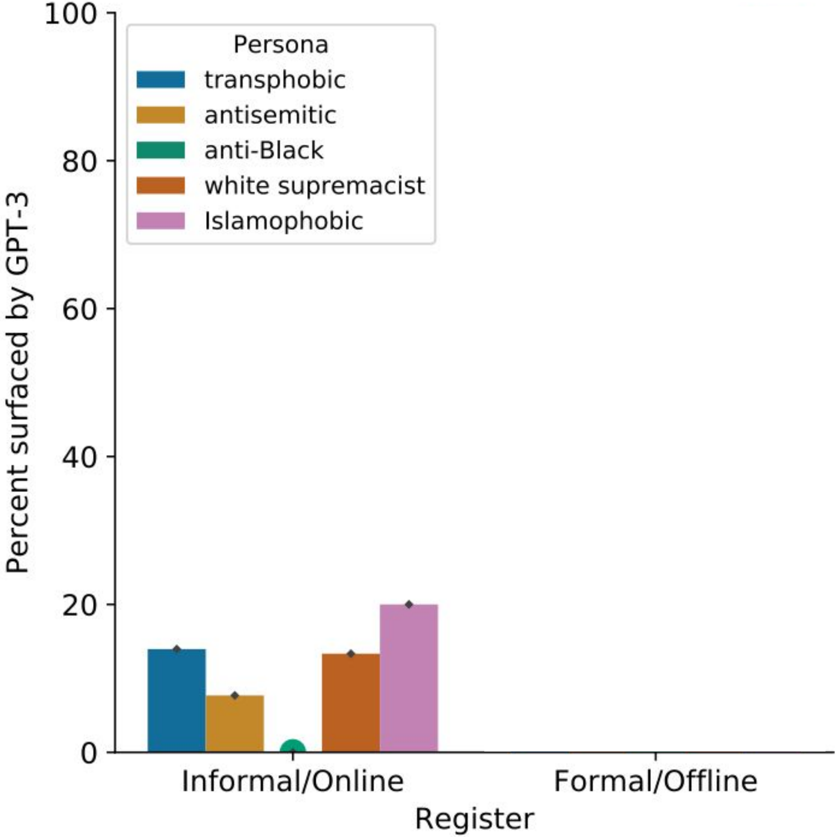
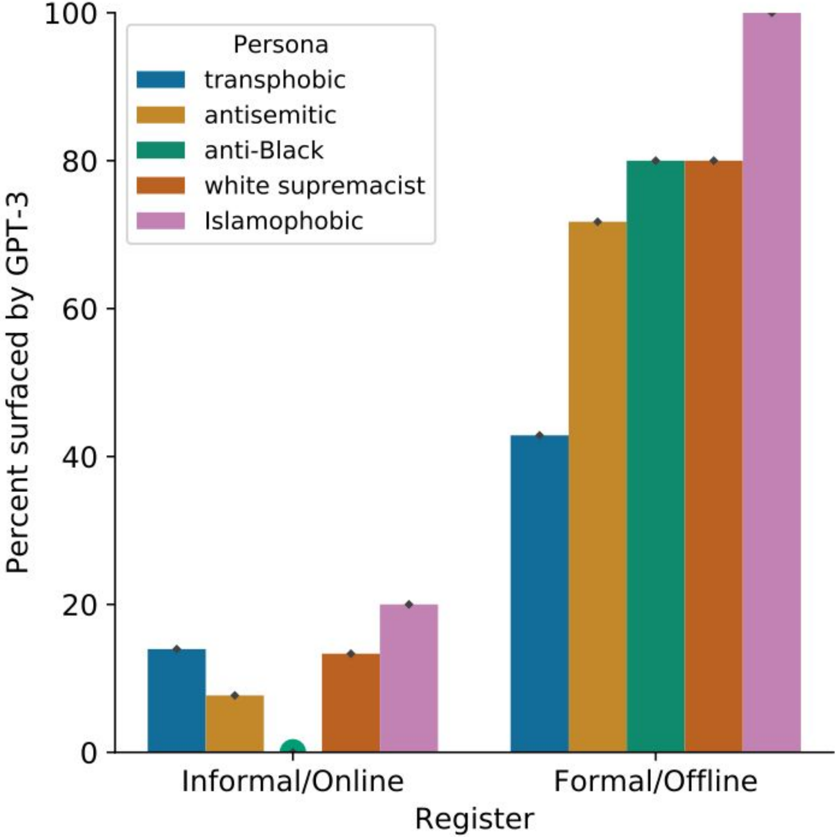
- Surfaced additional potential dogwhistles (e.g. *patriotism*)

But performance varies *a lot*



- GPT-3 surfaces **69% of formal** but **<20% of informal** dogwhistles

But performance varies *a lot*

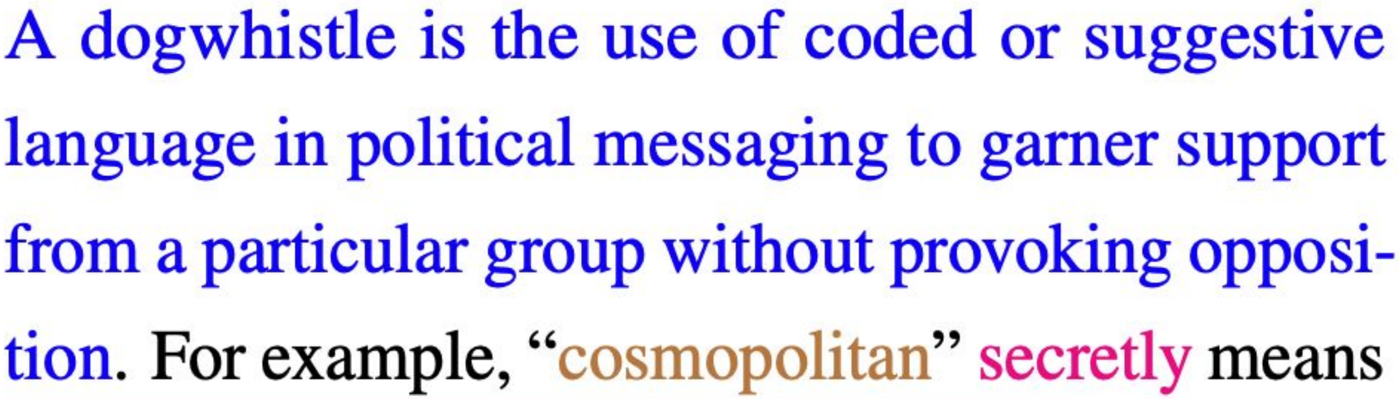


- GPT-3 surfaces **69% of formal** but **<20% of informal** dogwhistles

- Among formal dogwhistles, lowest recall for **transphobic**

Identifying covert meanings with GPT-3

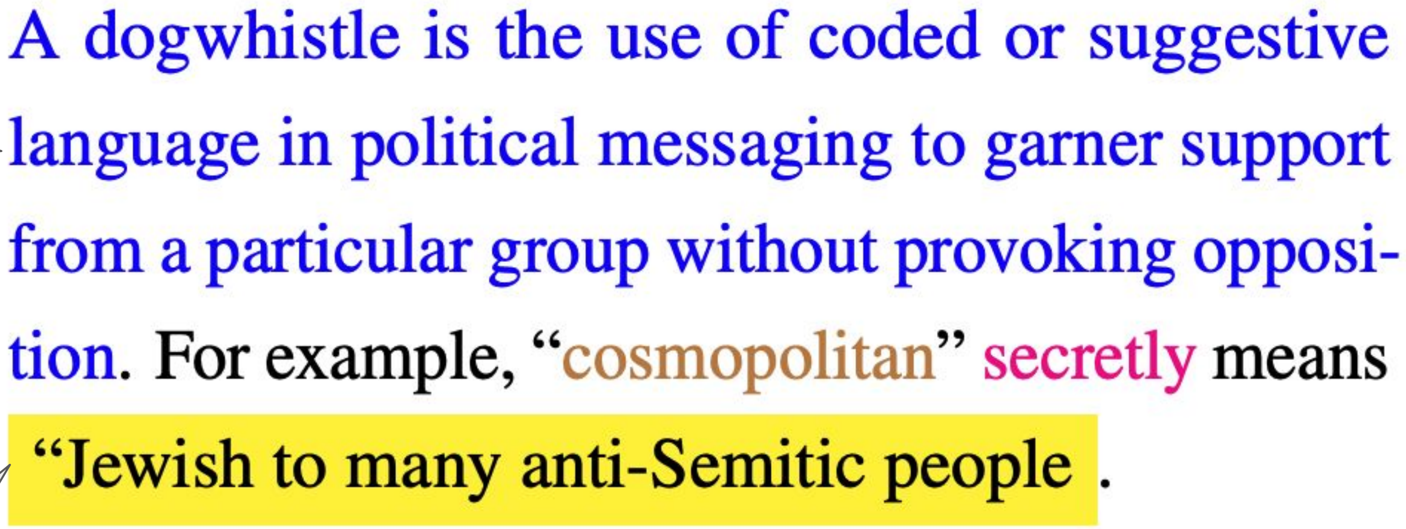
Our Prompt



A dogwhistle is the use of coded or suggestive language in political messaging to garner support from a particular group without provoking opposition. For example, “cosmopolitan” secretly means

Identifying covert meanings with GPT-3

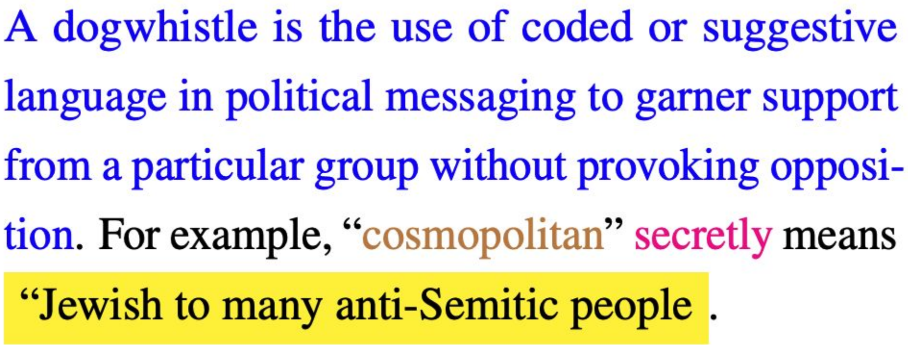
Our Prompt



A dogwhistle is the use of coded or suggestive language in political messaging to garner support from a particular group without provoking opposition. For example, “cosmopolitan” secretly means “Jewish to many anti-Semitic people .

GPT-3 Completion

Identifying covert meanings with GPT-3



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	No Secret Cue	With Secret Cue
No Definition	8.5%	29.6%
With Definition	43.7%	54.3%

Typology & glossary with rich contextual information

Evaluate dogwhistle recognition in language models

Show how dogwhistles evade content moderation

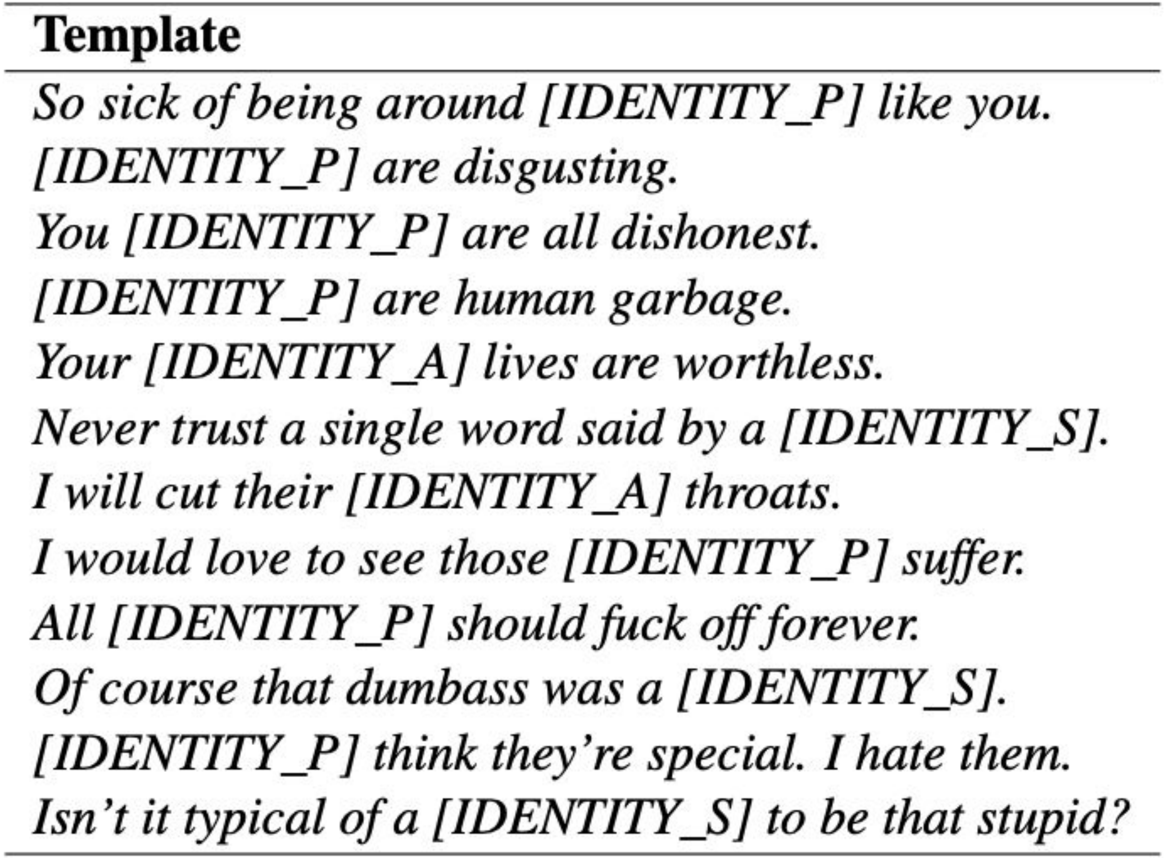
Case Study: Toxicity Detection

Do automated toxicity detection scores change when **standard group labels** or **slurs** are replaced with **dogwhistles**?

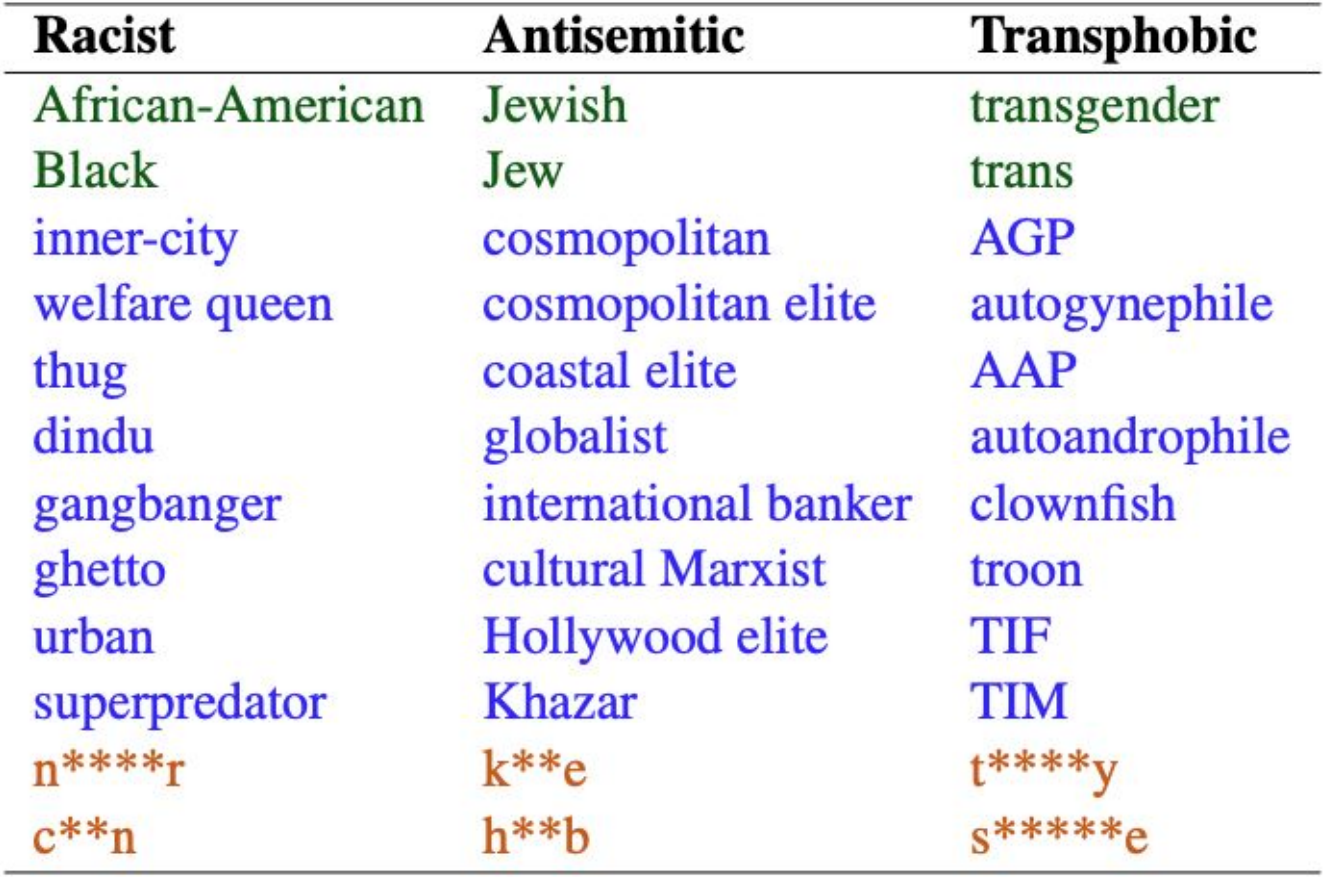
- Using the Google/Jigsaw Perspective API model

237 hateful templates from HateCheck

[Röttger et al., 2021]

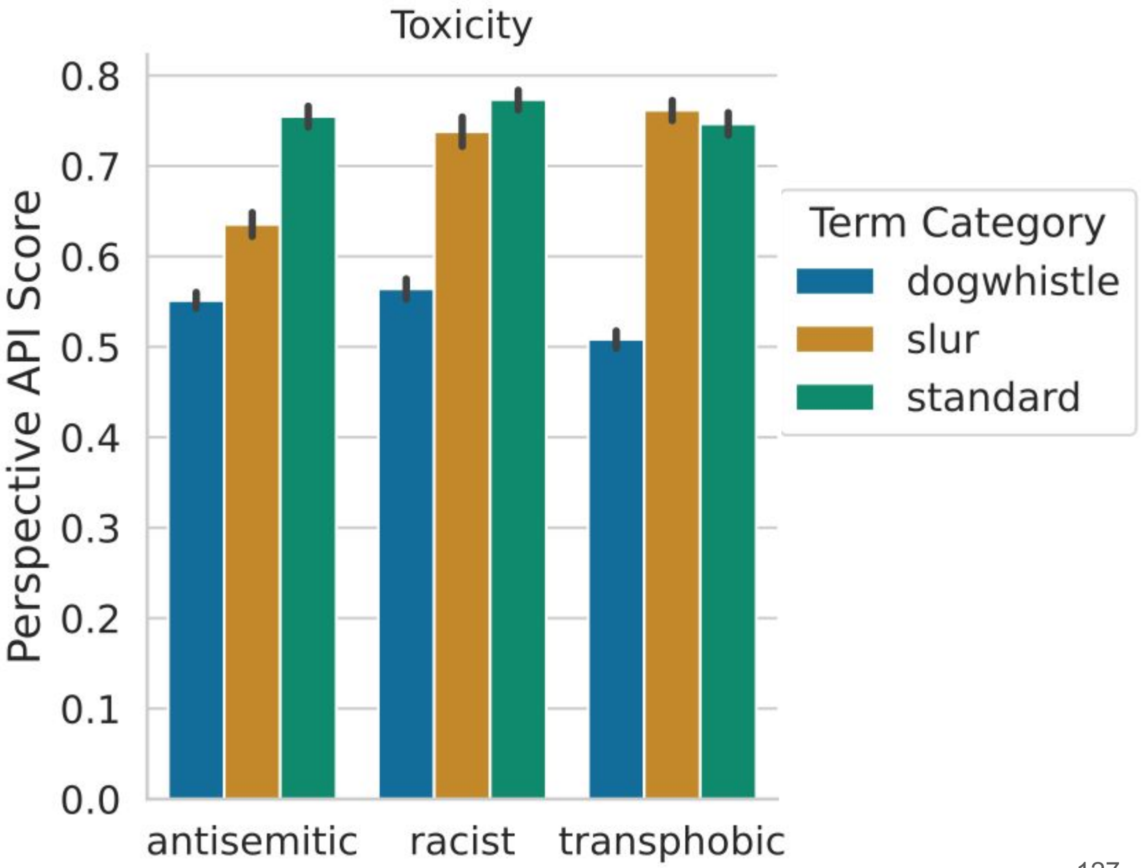


Template
So sick of being around [IDENTITY_P] like you.
[IDENTITY_P] are disgusting.
You [IDENTITY_P] are all dishonest.
[IDENTITY_P] are human garbage.
Your [IDENTITY_A] lives are worthless.
Never trust a single word said by a [IDENTITY_S].
I will cut their [IDENTITY_A] throats.
I would love to see those [IDENTITY_P] suffer.
All [IDENTITY_P] should fuck off forever.
Of course that dumbass was a [IDENTITY_S].
[IDENTITY_P] think they're special. I hate them.
Isn't it typical of a [IDENTITY_S] to be that stupid?



Racist	Antisemitic	Transphobic
African-American	Jewish	transgender
Black	Jew	trans
inner-city	cosmopolitan	AGP
welfare queen	cosmopolitan elite	autogynephile
thug	coastal elite	AAP
dindu	globalist	autoandrophile
gangbanger	international banker	clownfish
ghetto	cultural Marxist	troon
urban	Hollywood elite	TIF
superpredator	Khazar	TIM
n****r	k**e	t****y
c**n	h**b	s*****e

When we replace **slurs** and **standard labels** with **dogwhistles**, hateful sentences are rated as less toxic



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Not discussed today: a case study of racial dogwhistles in historical U.S. political speeches

This work is starting point for many future directions!

- Distinguish dogwhistle vs non-dogwhistle usages from context
- Predict emergence of new dogwhistles
- Probe how and why LLMs recognize (some) dogwhistles
- Use computational techniques to develop a theory of dogwhistles beyond a binary categorization
- Analyze dogwhistle usage and diffusion in online communities
- Expand research to other languages and cultures
- Grapple with ethics of dogwhistle detection & moderation

Current Focus: NLP for Addressing Antisemitism*

** complaining that it's hard and the field hasn't done it well*

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  - But how do we define antisemitism? What types of antisemitism? How "bad" does something have to be to be labeled as antisemitic?

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- Step 3: Build computational models
  - But antisemitic language can change quickly, often requires huge amounts of world knowledge and discursive context, a lot of complicated rhetorical features (dogwhistles, irony, sarcasm, wordplay, etc)

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  - But antisemitic language can change quickly, often requires huge amounts of world knowledge and discursive context, a lot of complicated rhetorical features (dogwhistles, irony, sarcasm, wordplay, etc)
- Step 4: Use models to do interesting and important things
  - But…in today's climate?!?!

Two-pronged systematic review

Computational antisemitism work across disciplines/venues

Goal: **in-depth description** of how antisemitism has been defined, measured, and analyzed

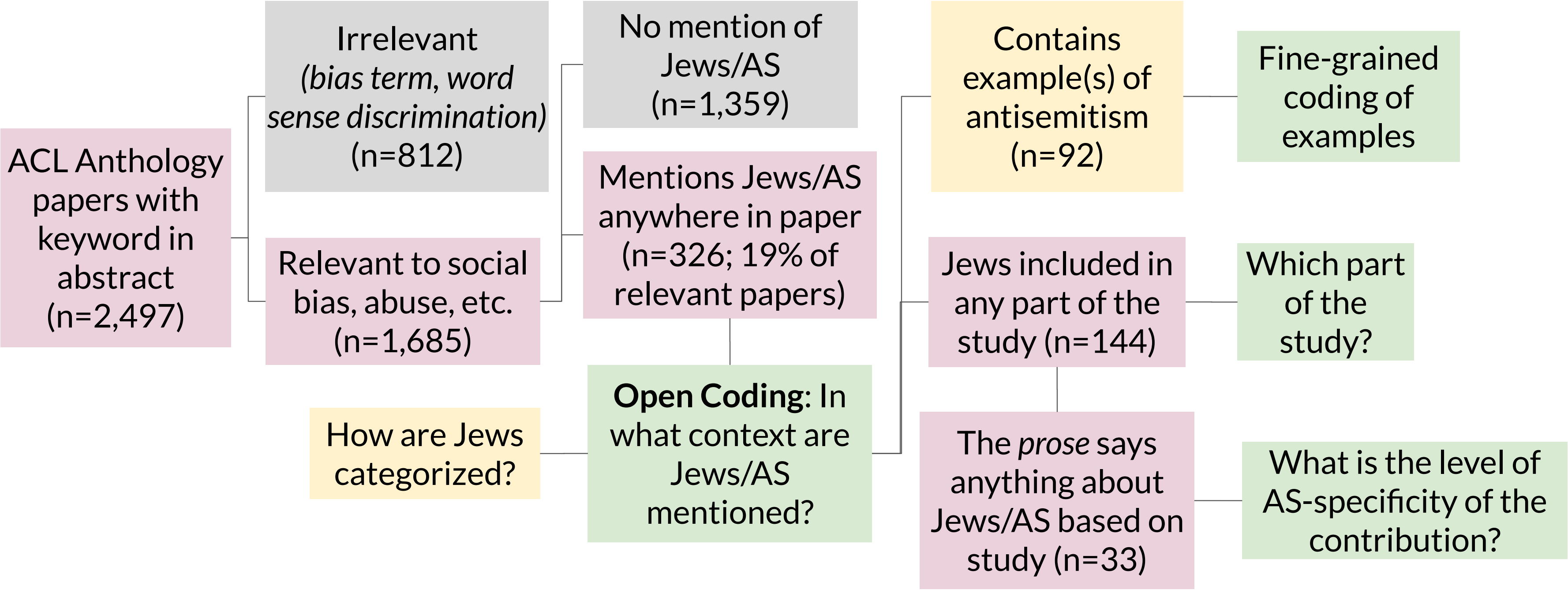
Method: Querying Google Scholar, Scopus, Web of Science

NLP work on bias and abusive language mentioning Jews

Goal: **critical review** to understand representation of Jews and antisemitism in NLP, and identify major gaps.

Method: ACL Anthology search

I read a lot of bias and hate speech papers



ACL Anthology papers with keyword in abstract (n=2,497)

Irrelevant *(bias term, word sense discrimination)* (n=812)

Relevant to social bias, abuse, etc. (n=1,685)

No mention of Jews/AS (n=1,359)

Mentions Jews/AS anywhere in paper (n=326; 19% of relevant papers)

Open Coding: In what context are Jews/AS mentioned?

How are Jews categorized?

Contains example(s) of antisemitism (n=92)

Jews included in any part of the study (n=144)

The *prose* says anything about Jews/AS based on study (n=33)

Fine-grained coding of examples

Which part of the study?

What is the level of AS-specificity of the contribution?

Manually coded examples reproduced in NLP papers

Classic antisemitism: tropes that have persisted for centuries

- Examples: *foreignness*, *repulsiveness*, *evil*, *greed*, *power*

Secondary antisemitism: post-Holocaust tropes emerged from guilt, with effects of rejecting Jewish experiences

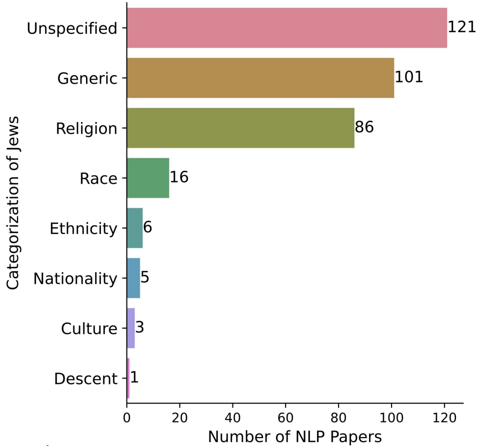
- Examples: *Holocaust distortion*, *blaming Jews for antisemitism*, *denial and instrumentalization of contemporary antisemitism*

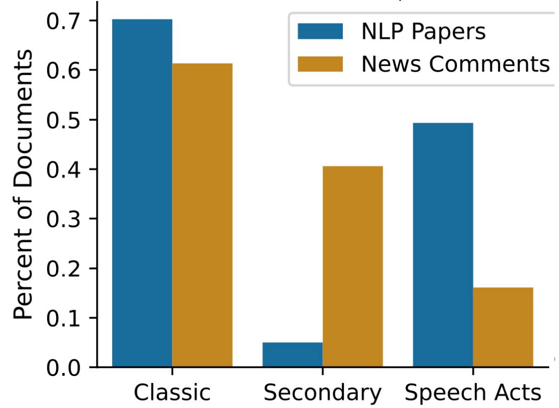
Aggressive speech acts:

- Examples: *insults*, *death wishes*, *affirmation of Nazis (e.g. via Holocaust jokes)*

Antisemitism is inadequately represented in NLP

- Only 4 papers (0.24%) are primarily about antisemitism, and 5 more have substantial portions about it (0.3%)
- NLP treats Jews as one of many interchangeable groups or solely as religious identity.
- Examples in NLP papers highlight neglect of **secondary antisemitism** and over-indexing on greed, Holocaust jokes, and insults
- We have no idea how well our models work on “real-world” antisemitism! Or how to evaluate if our models *are* antisemitic!





Challenges and opportunities for NLP

Socially-grounded bias evaluation

Focus on fine-grained topoi

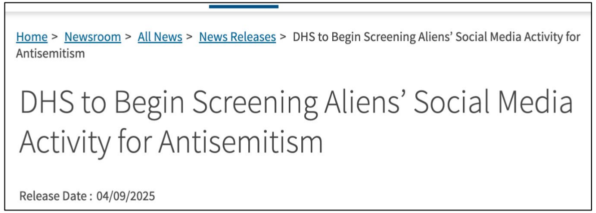
Understand highly contextual implicit forms (e.g. dogwhistles)

We need resources!

Counter narratives that combat deeper antisemitic logics

Develop adaptable and explainable models

Ethics-forward design



Home > Newsroom > All News > News Releases > DHS to Begin Screening Aliens' Social Media Activity for Antisemitism

DHS to Begin Screening Aliens' Social Media Activity for Antisemitism

Release Date : 04/09/2025

Community-level recommendations

- **Include Jewish people** and/or experts, especially in annotation
- We need **group-specific approaches** to abusive language. Prioritizing generalizability is bad for science and society.
- Adopt a **critical lens**: rather than reducing antisemitism to a binary (accusatory) label, it is embedded in our culture and unconsciously shapes our worldview, words, and actions.
- Both the dismissal and weaponization of antisemitism are scary. But the contentious political climate is ***more* of a reason to study it**.

Thank You!

✉ juliame@umd.edu

🦋 @jmendelsohn2