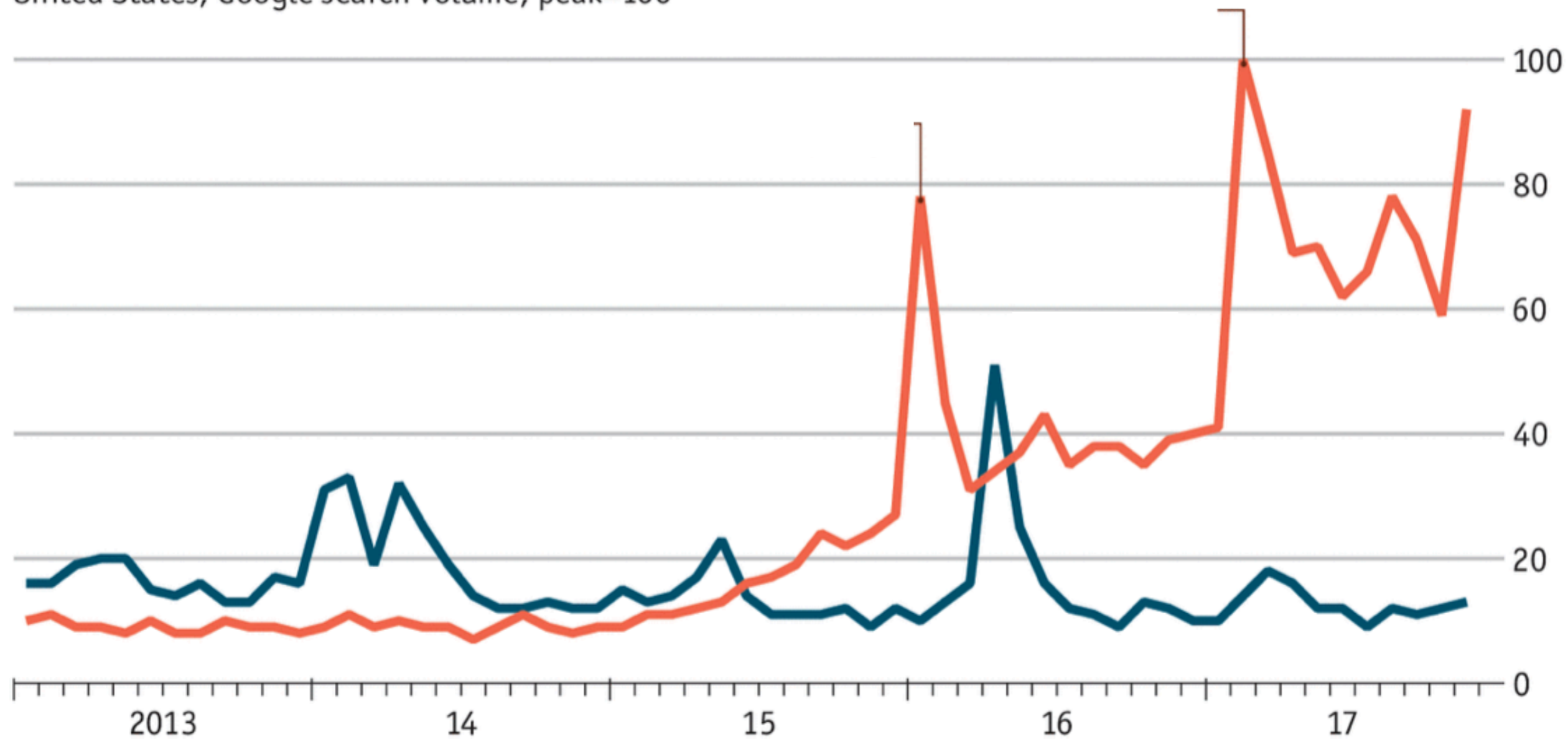


## Spheres of influence

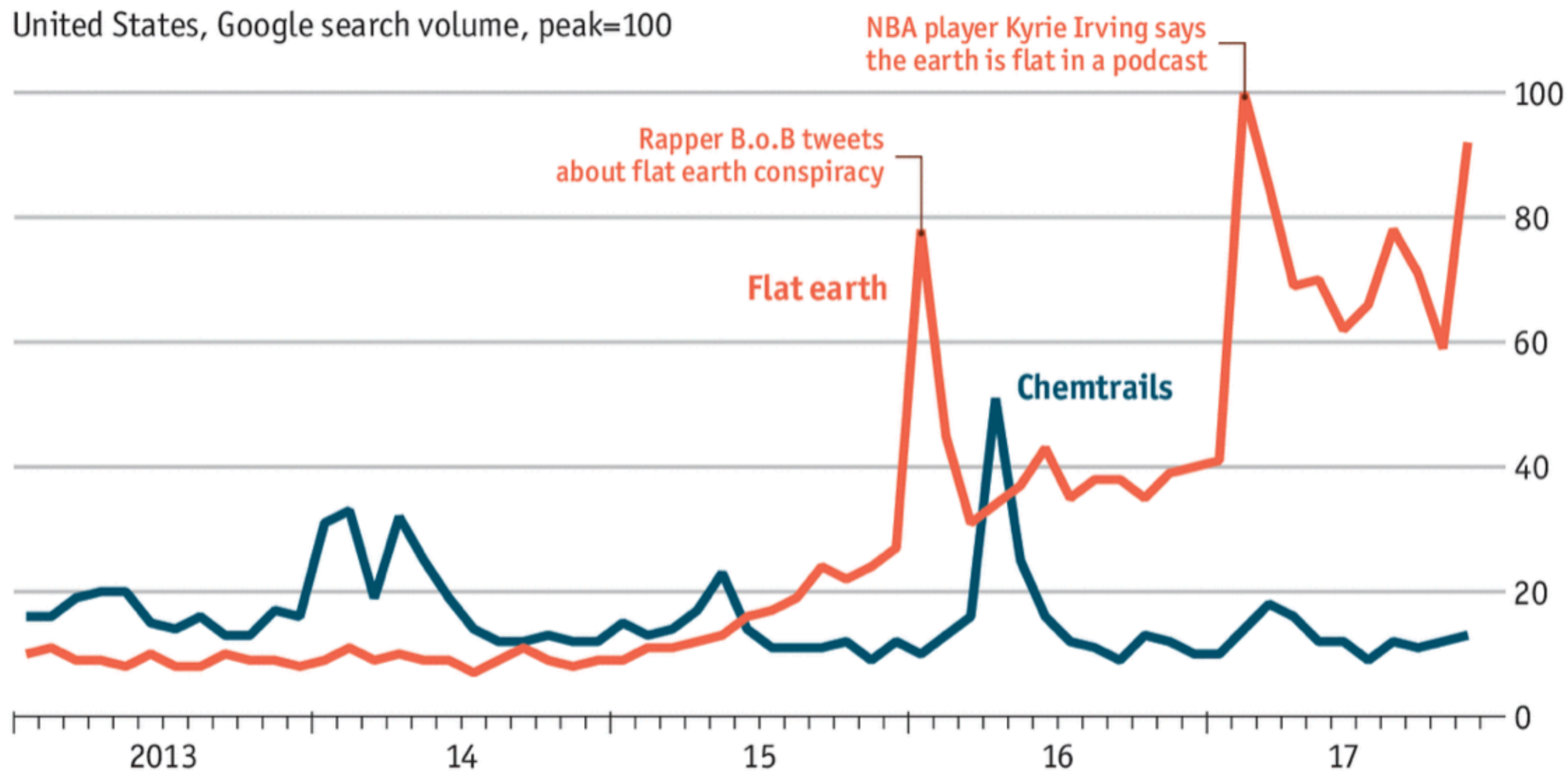
United States, Google search volume, peak=100



Source: Google Trends

# Spheres of influence

United States, Google search volume, peak=100



Source: Google Trends (<https://www.economist.com/graphic-detail/2017/11/28/americas-flat-earth-movement-appears-to-be-growing>)

Day of Sociology  
27 June 2019

“No room for thinking, under the dome”. Flat earth and the boundary construction between science and non-science on Twitter.

Luca Carbone & Peter Achterberg

|

Core

|

Core

|

Periphery

# Periphery

# Periphery

## **Shortcomings:**

- Origins and motives of non-science (Harambam & Aupers 2015, 2016)
- Classificatory power to demarcate systems of knowledge (Agrawal, 1995, 2002)



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## **Constructivist approach:**

- Not only content-based (essentialist)
- Attention to representations: boundary-work (Gyerin, 1995)

# Periphery

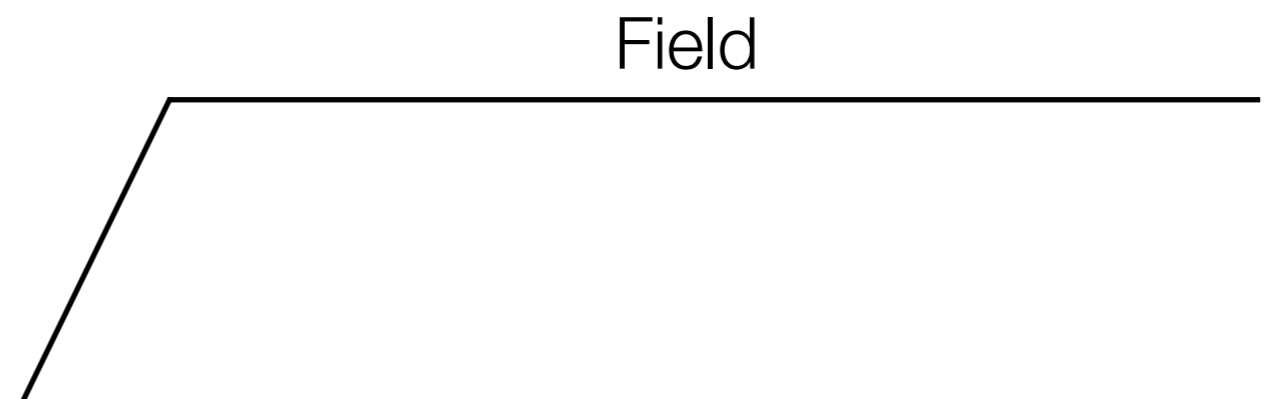
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# Periphery

## **Constructivist approach:**

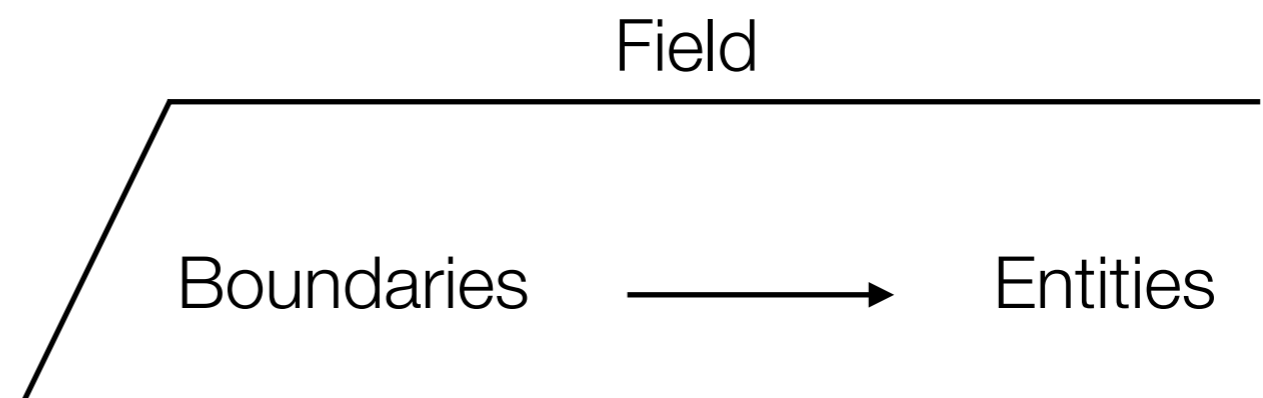
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- Twitter: symbolism, density



# Periphery

## **Constructivist approach:**

- Not only content-based (essentialist)
- Attention to representations: boundary-work (Gyerin, 1995)
- Twitter: symbolism, density
- Process (Abbott 1988, 1995)



#FlatEarth  
(N = 7138)

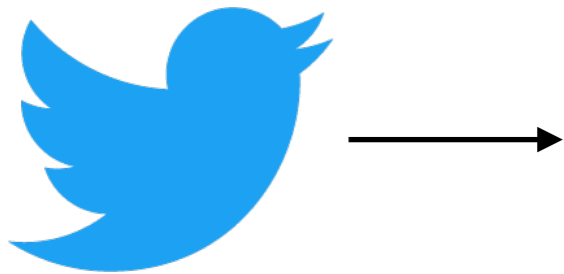


#FlatEarth  
(N = 7138)

Content analysis

$N_{\text{coding schema}} = 350$

$N_{\text{main analysis}} = 700$

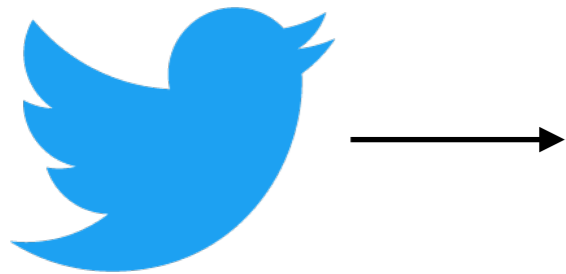


#FlatEarth  
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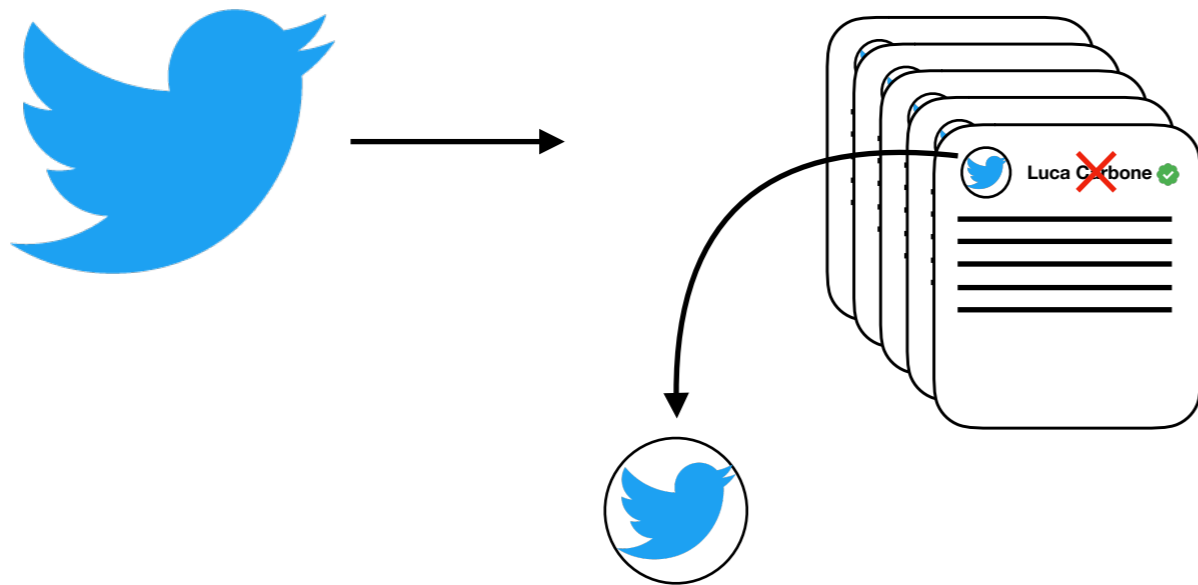


#FlatEarth  
(N = 7138)

Content analysis

$N_{\text{coding schema}} = 350$

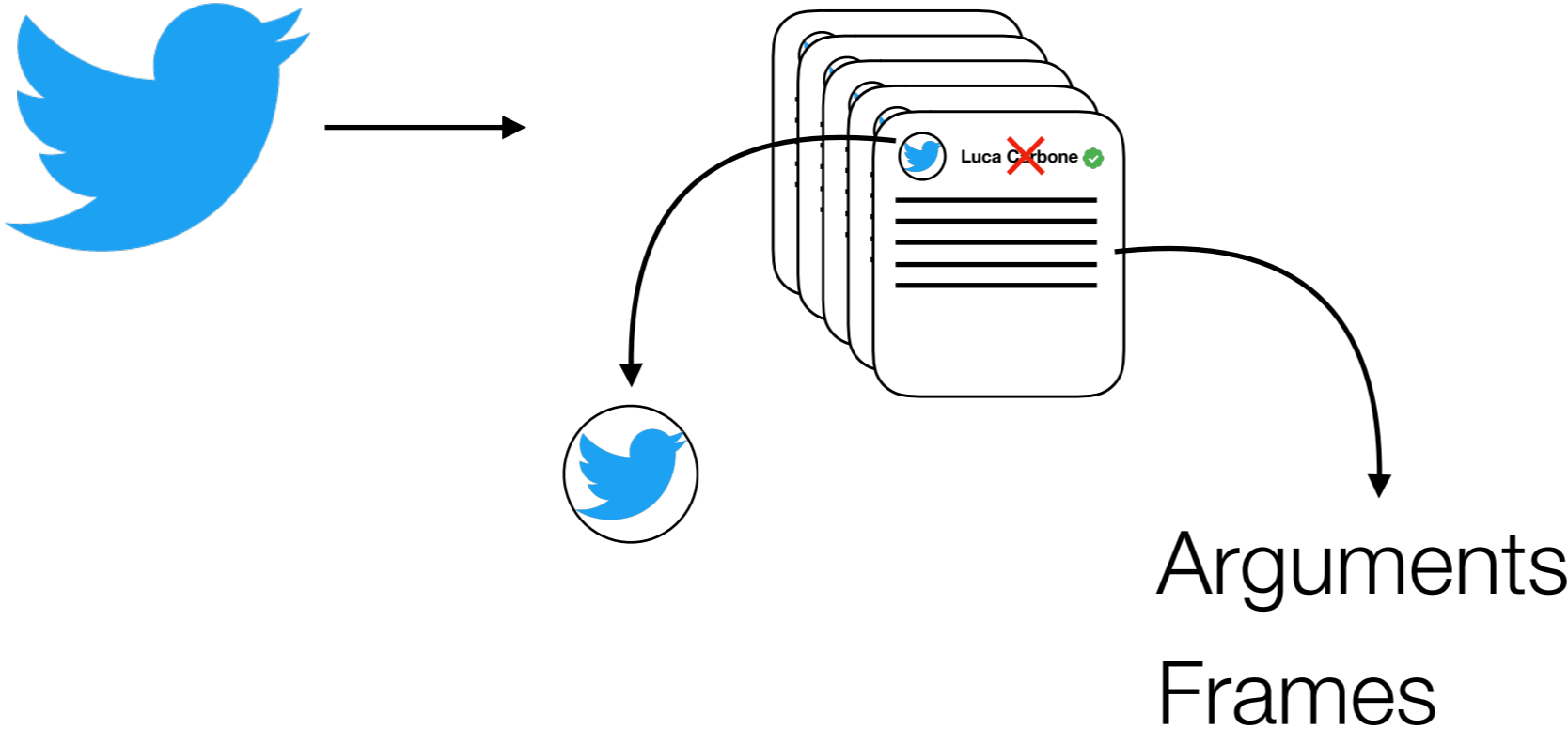
$N_{\text{main analysis}} = 700$





#FlatEarth  
(N = 7138)

Content analysis  
 $N_{\text{coding schema}} = 350$   
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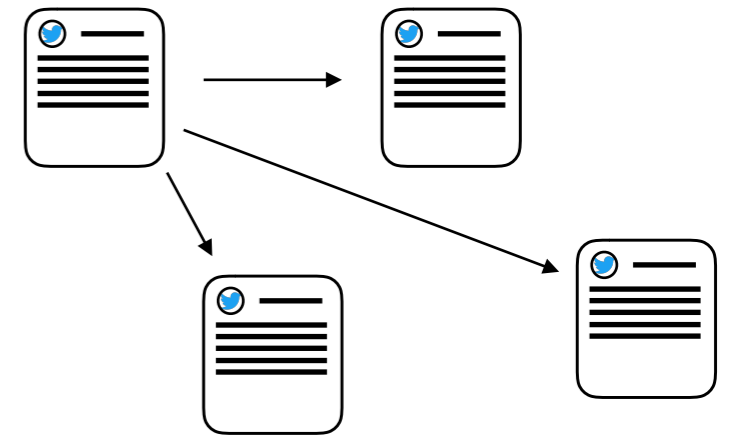
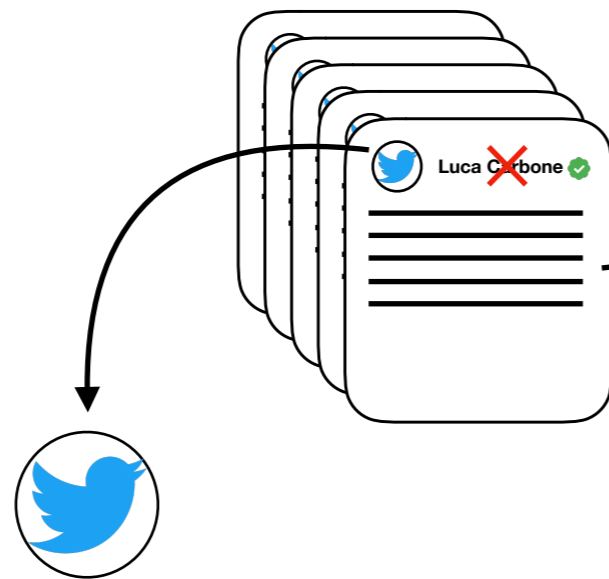
#FlatEarth  
(N = 7138)

Content analysis

$N_{\text{coding schema}} = 350$

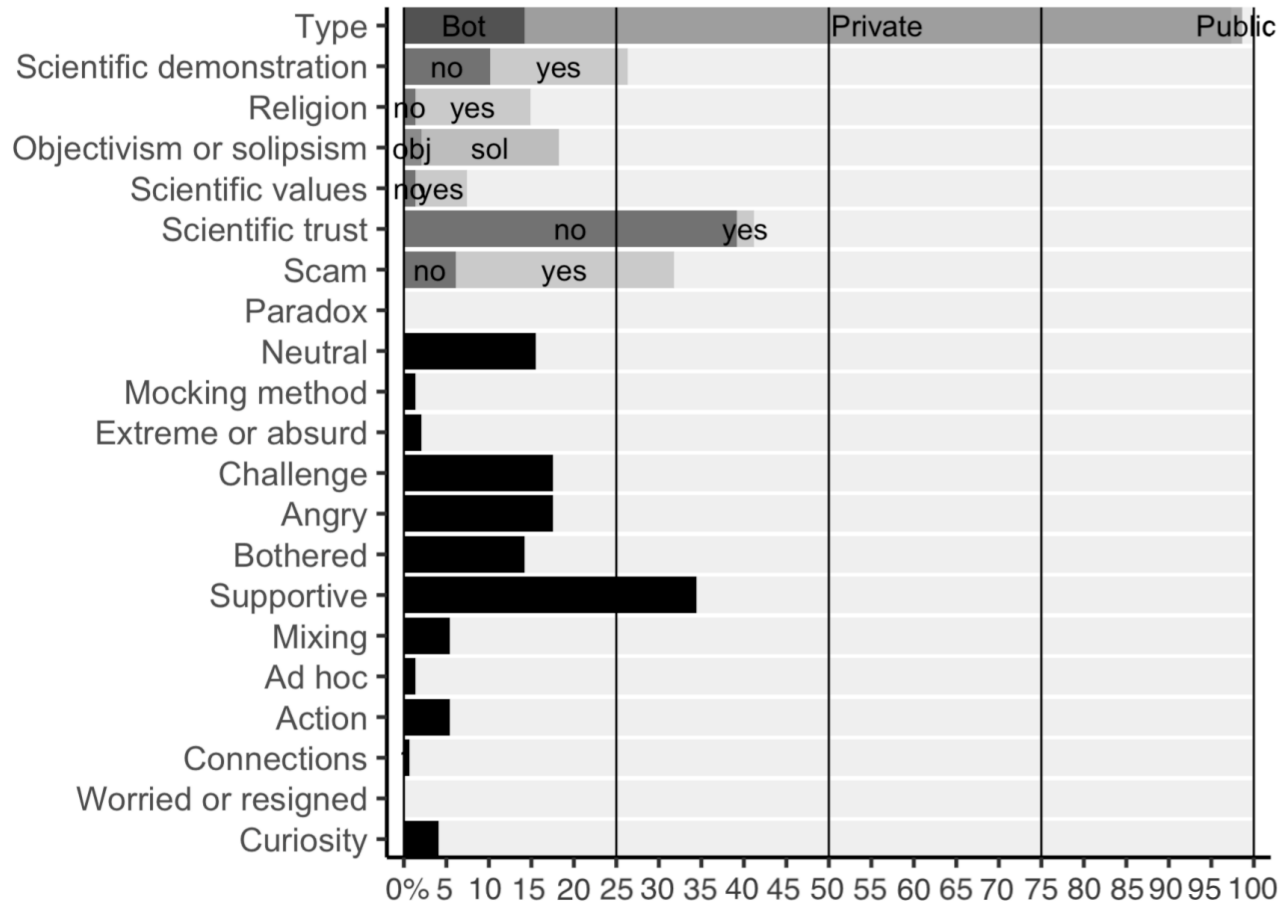
$N_{\text{main analysis}} = 700$

Discourse network  
analysis (Leifeld &  
Haunss, 2012)

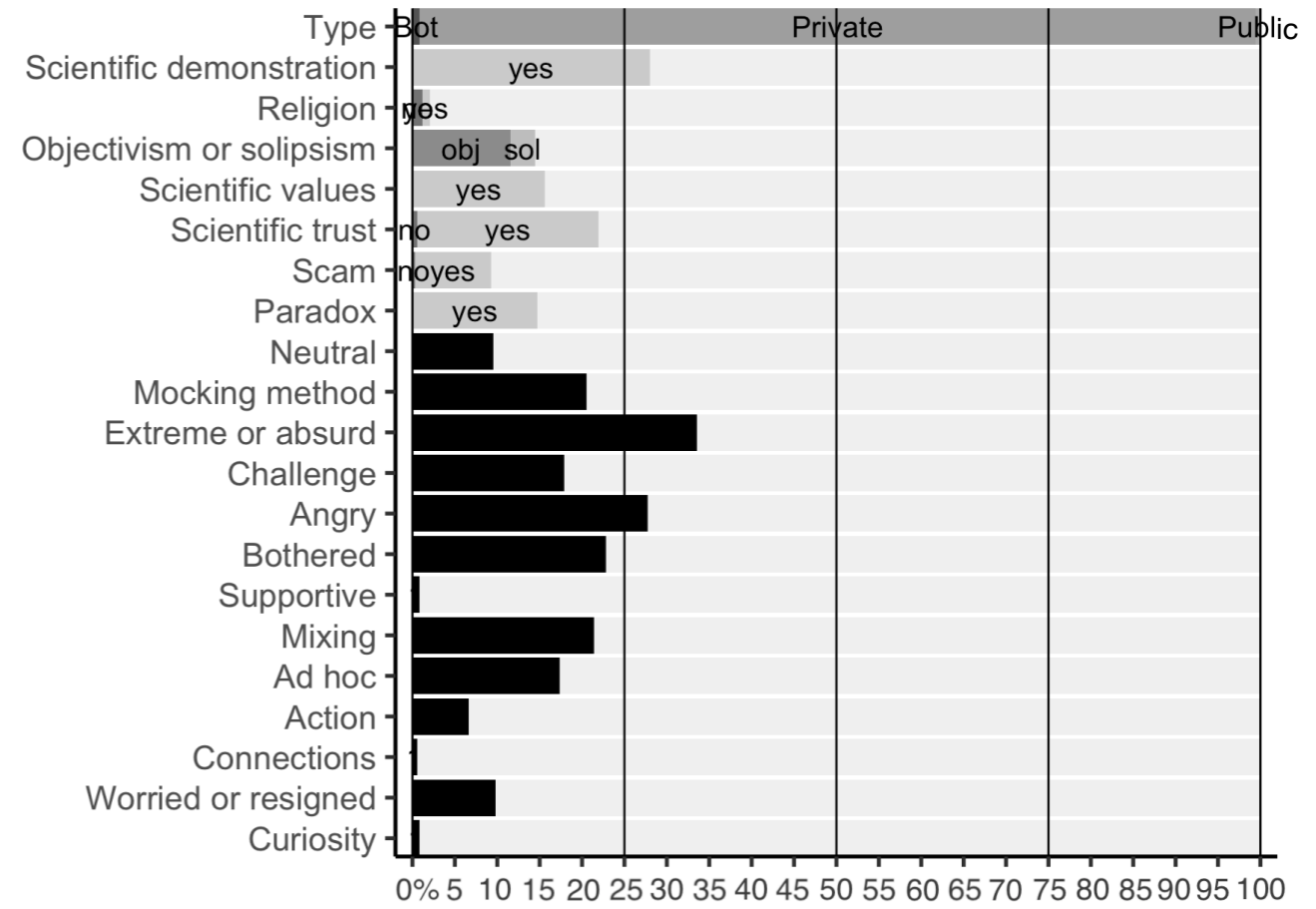


Arguments  
Frames

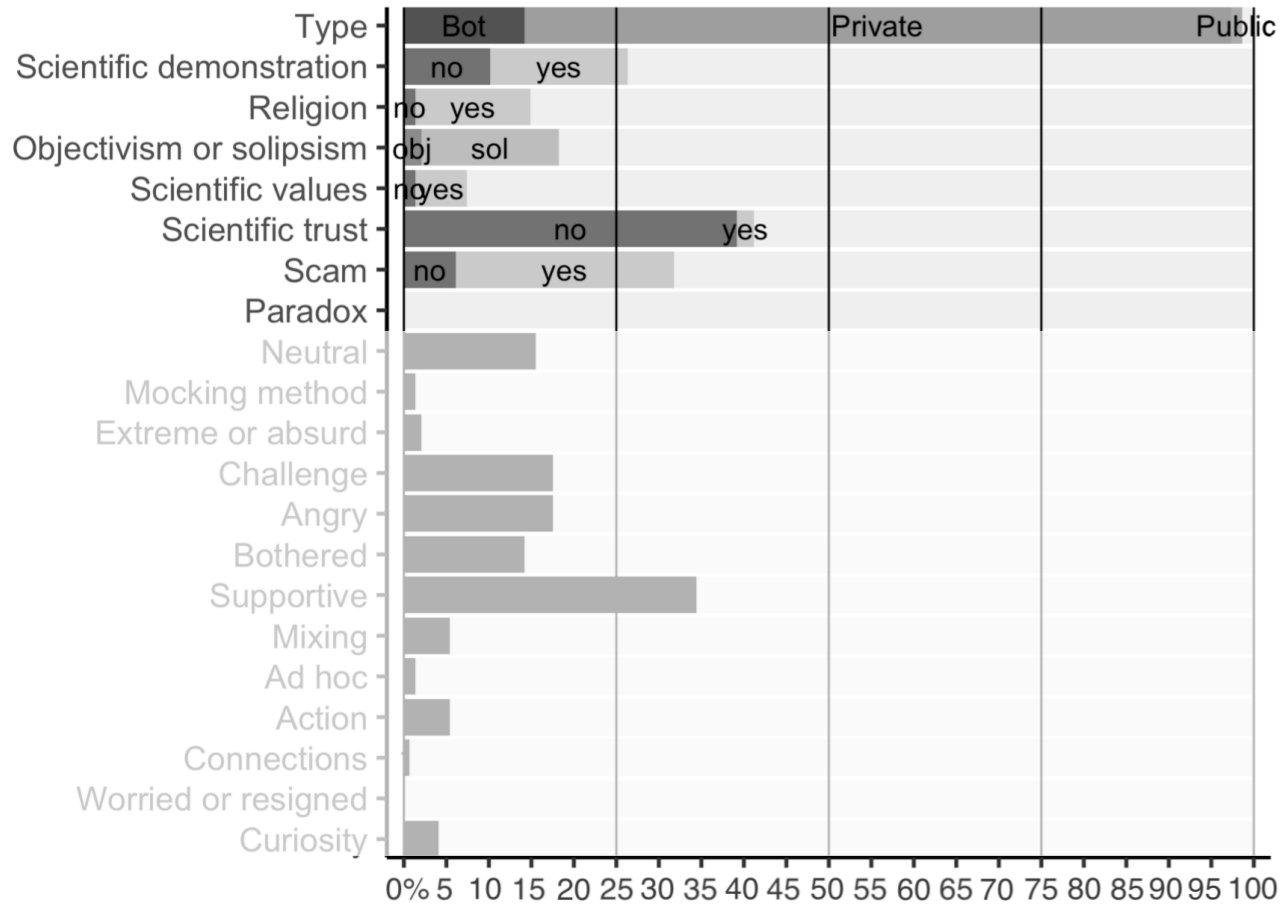
Supporters of FES (N = 148)



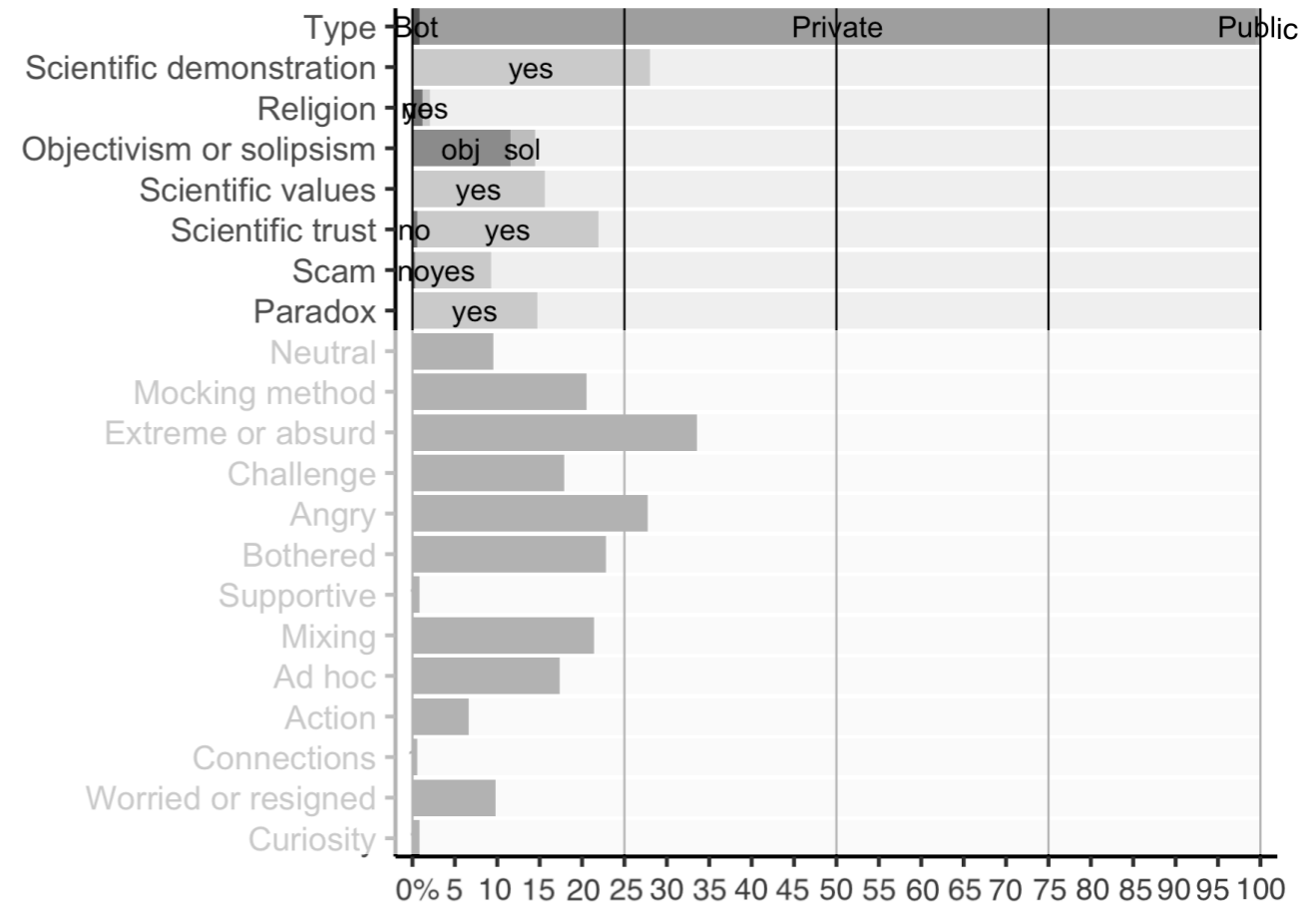
Adversaries of FES (N = 346)



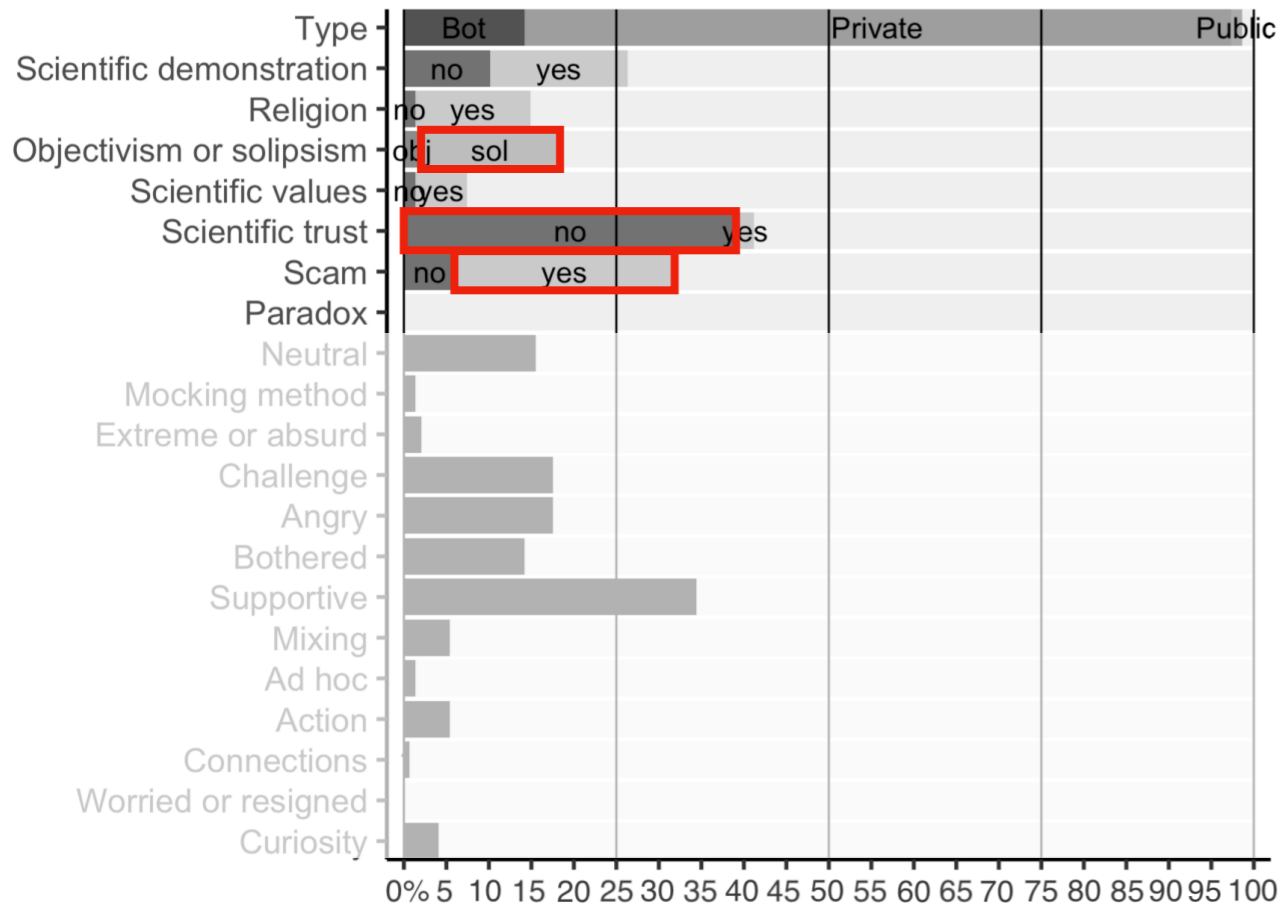
Supporters of FES (N = 148)



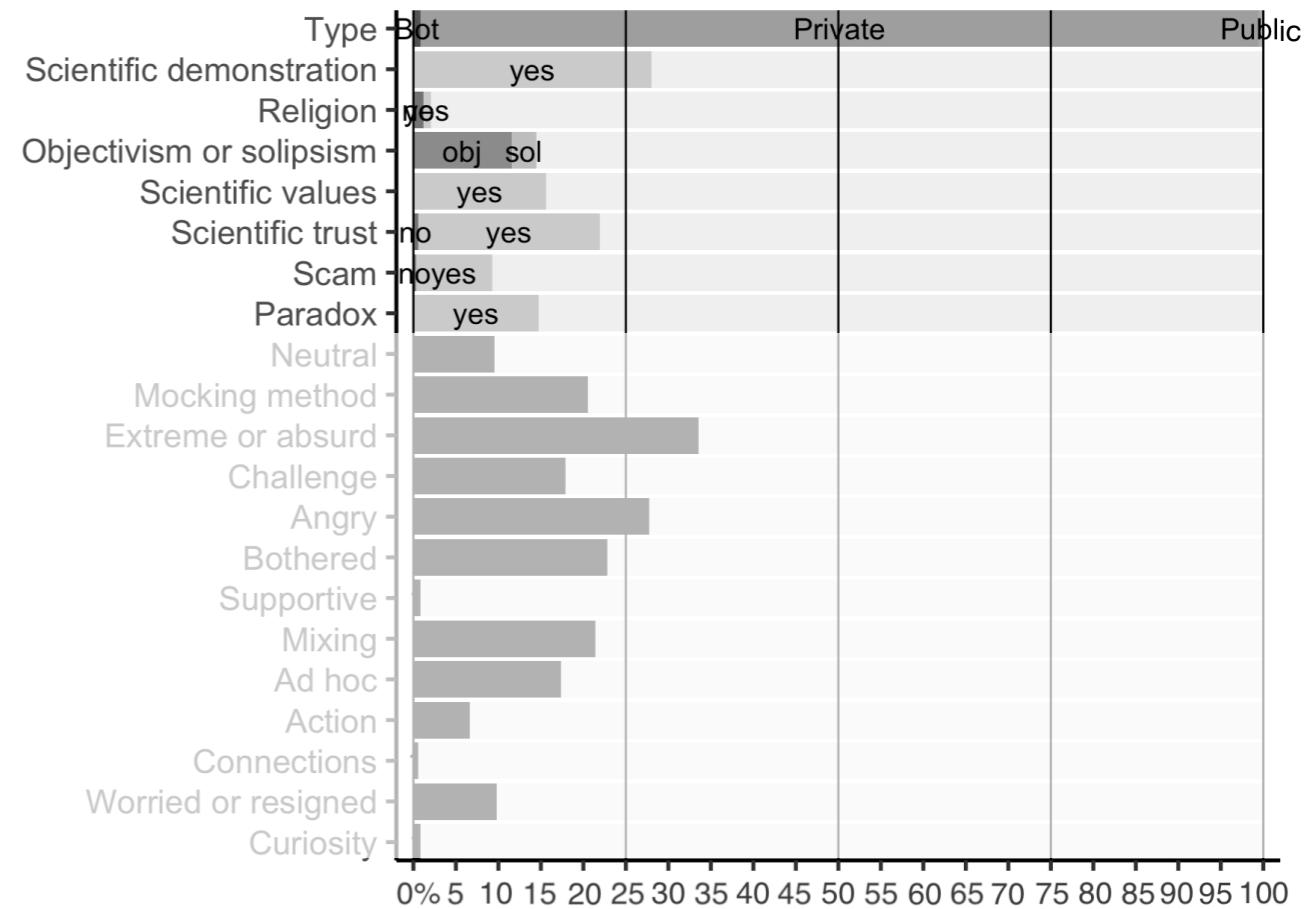
Adversaries of FES (N = 346)



Supporters of FES (N = 148)

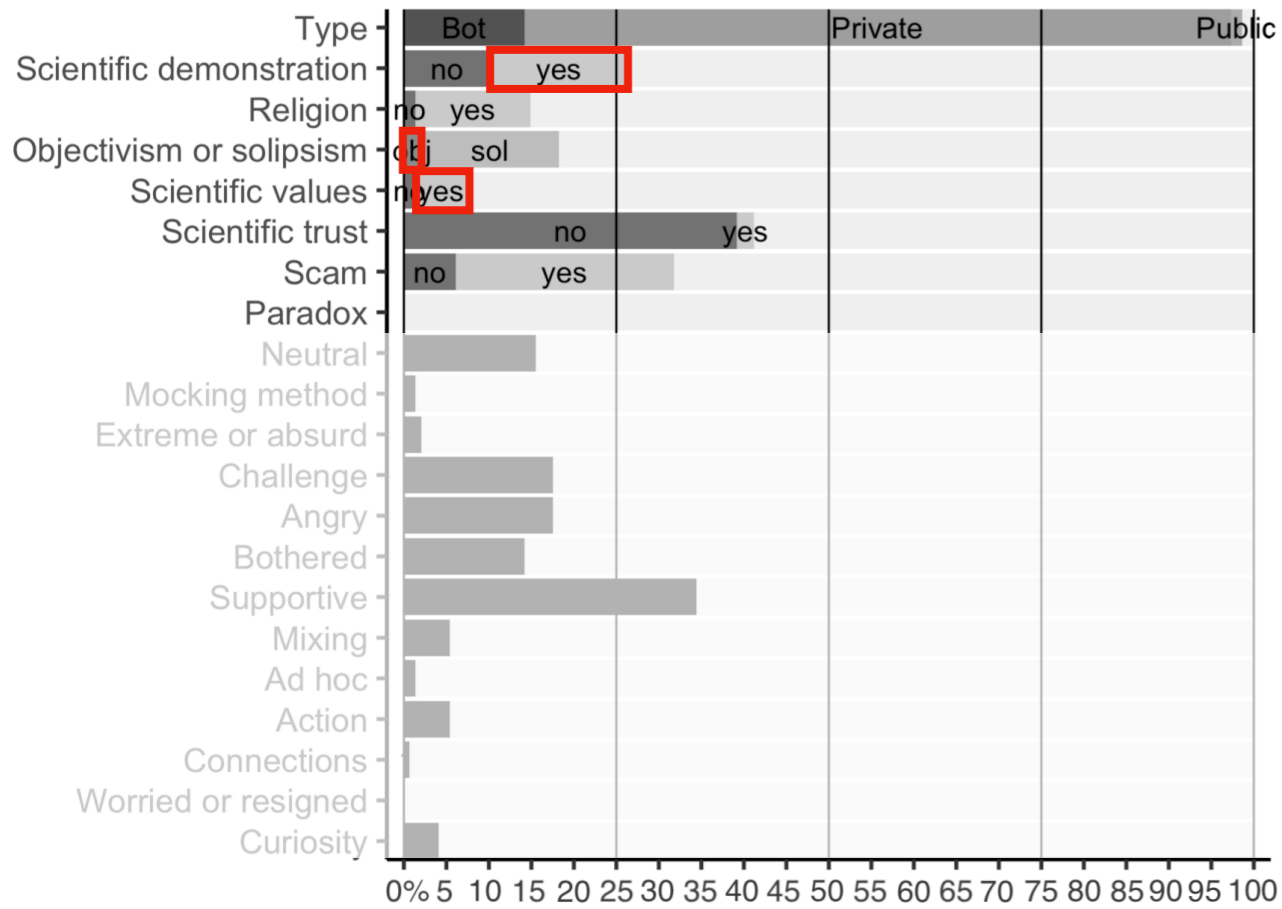


Adversaries of FES (N = 346)

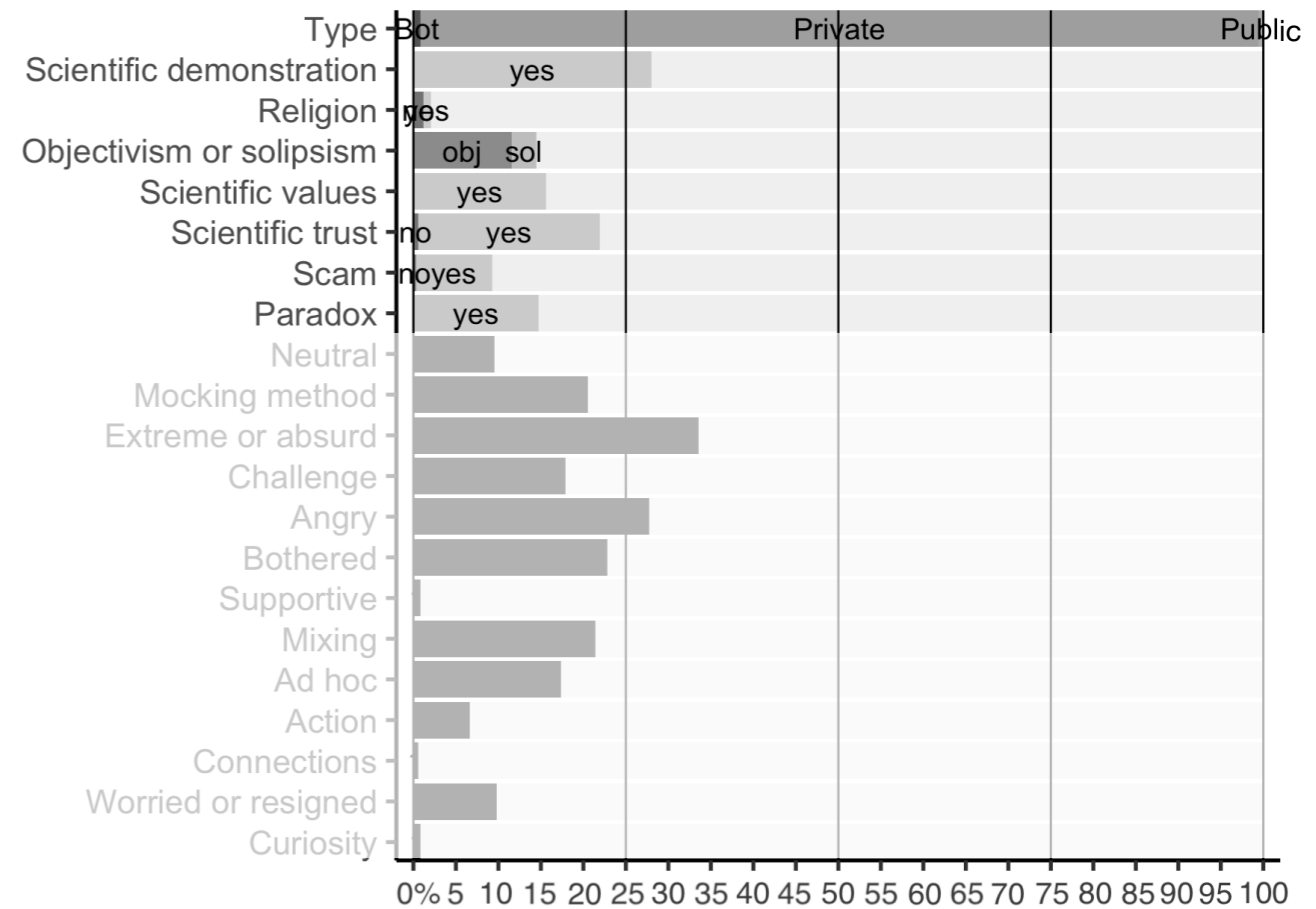


Conspiracy (27%)

Supporters of FES (N = 148)



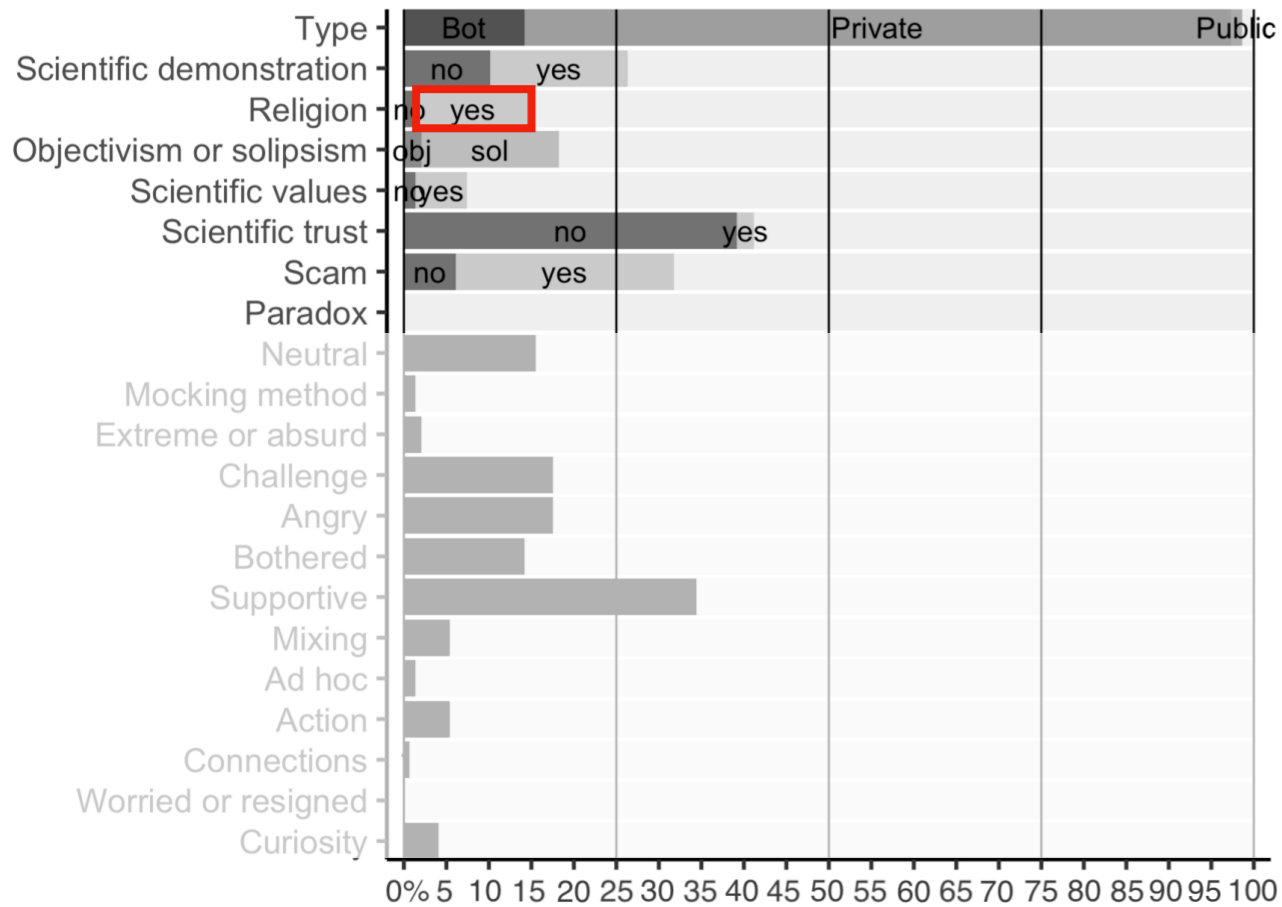
Adversaries of FES (N = 346)



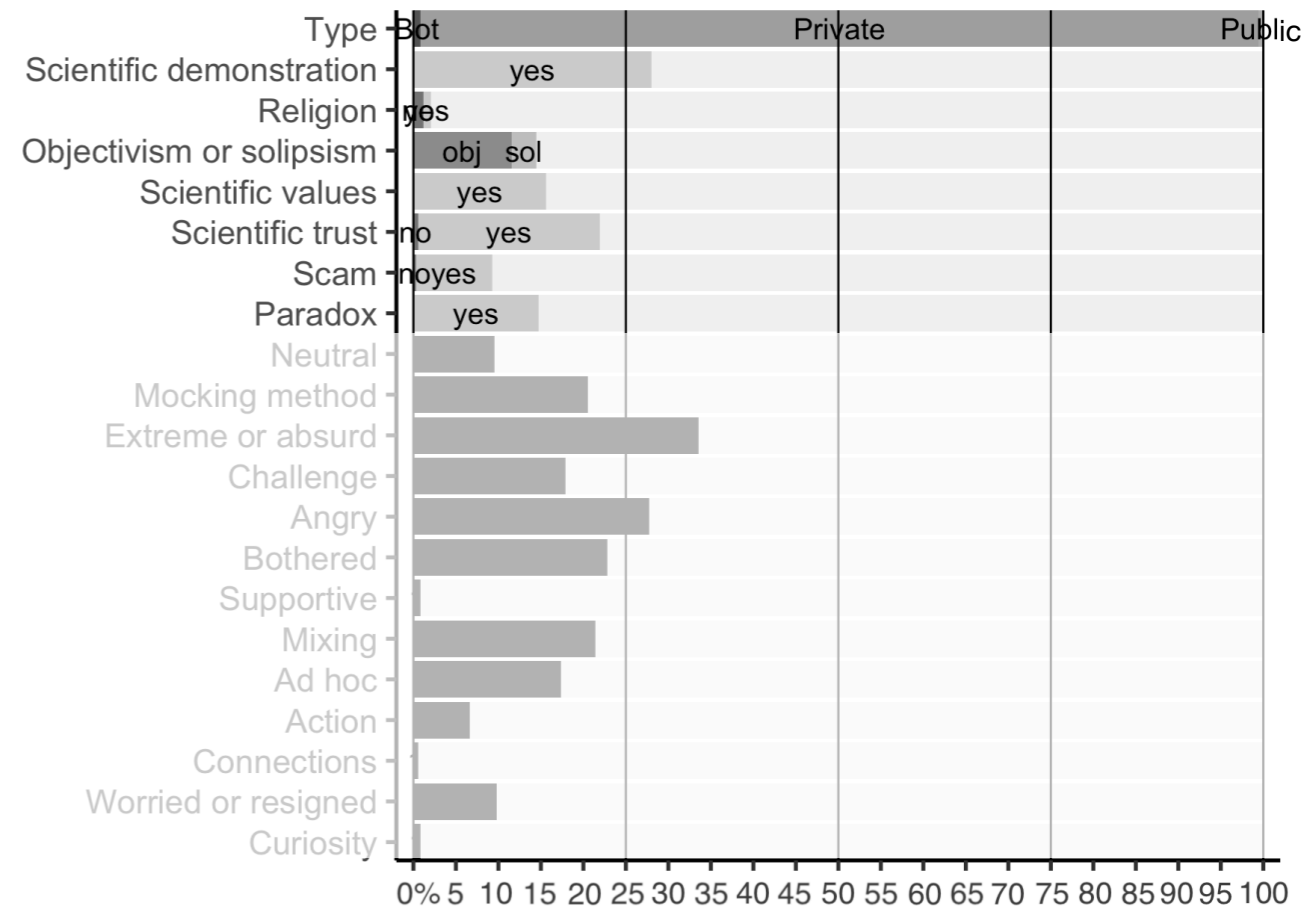
Conspiracy (27%)

Scientific (18%)

Supporters of FES (N = 148)



Adversaries of FES (N = 346)

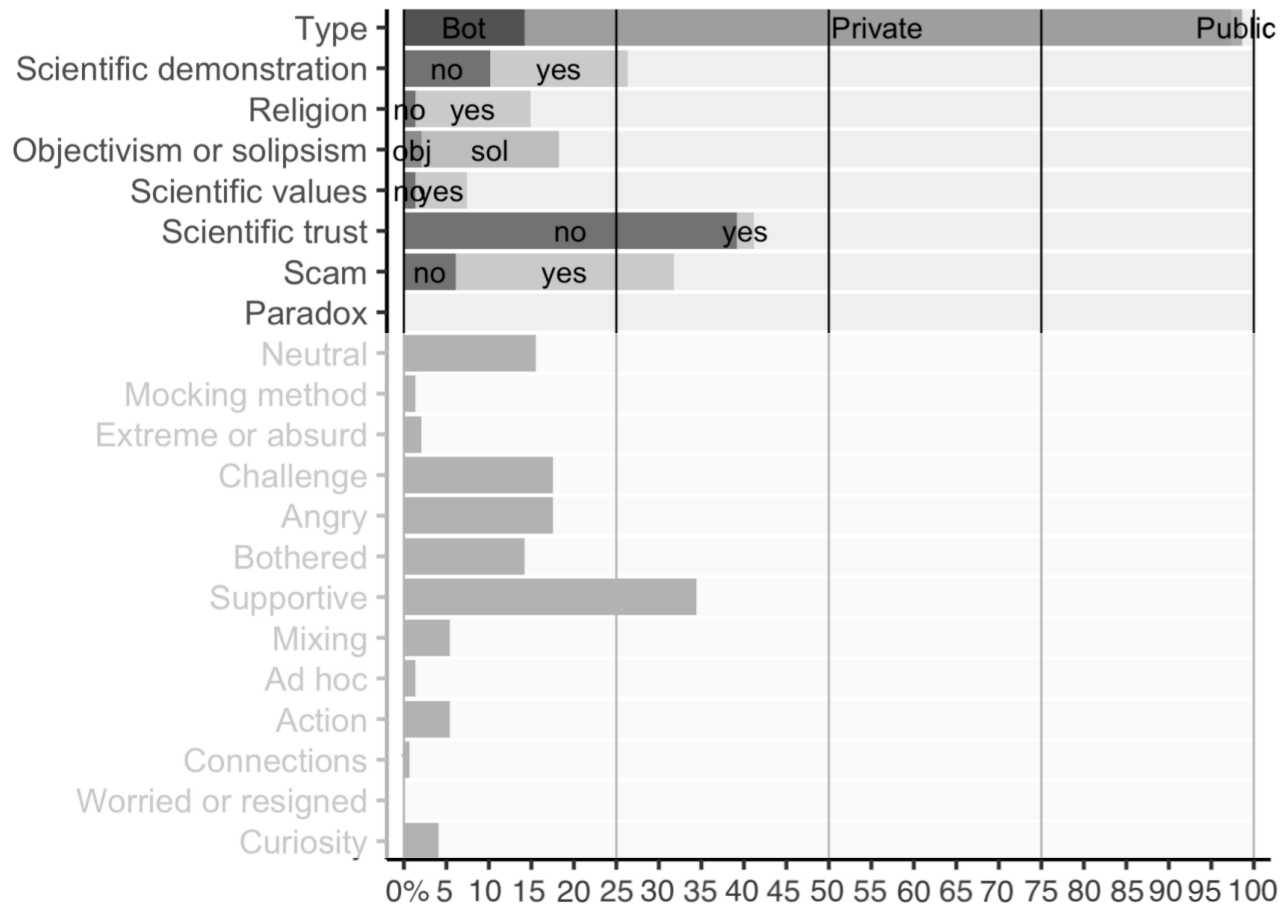


Conspiracy (27%)

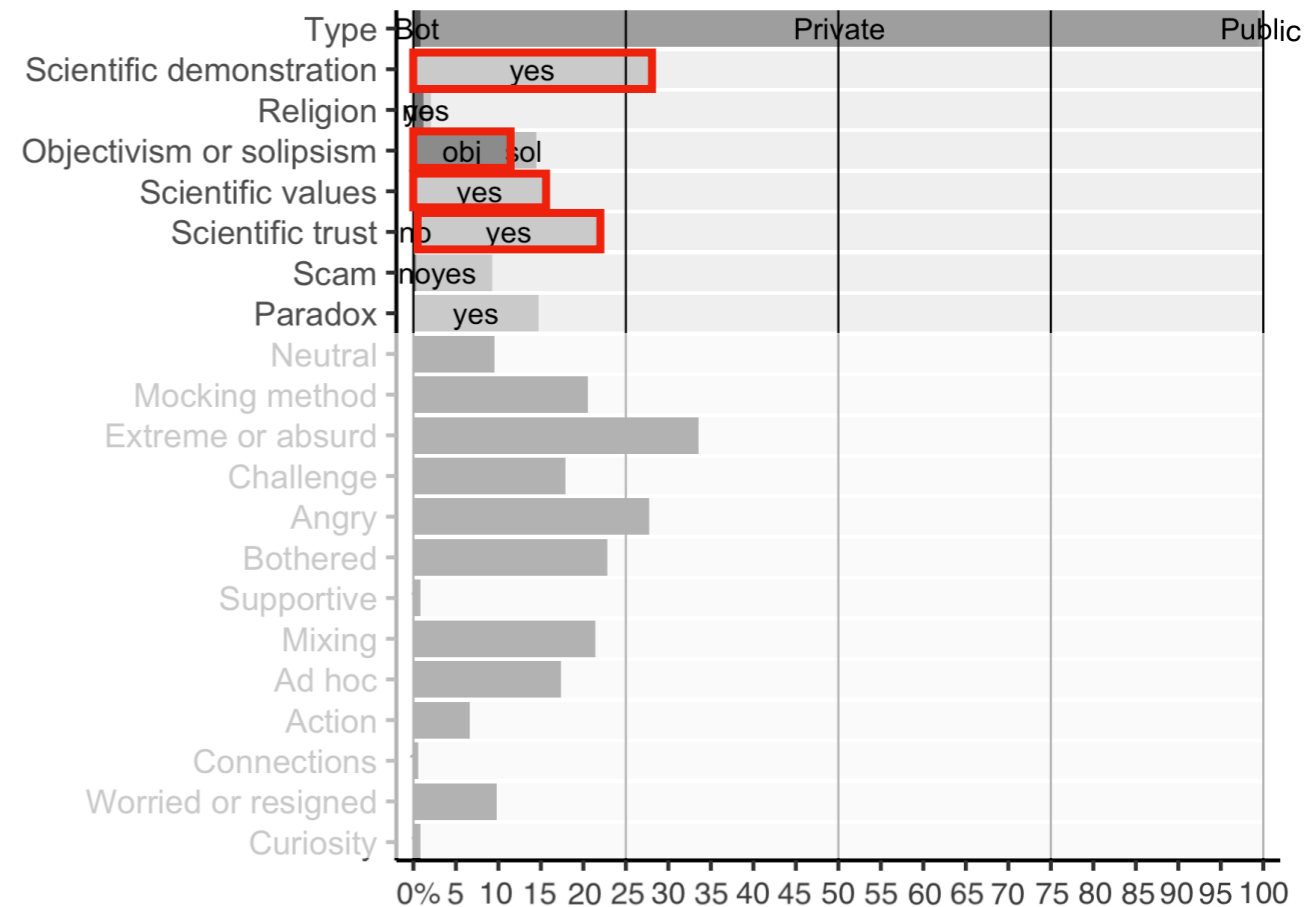
Scientific (18%)

Religious (14%)

Supporters of FES (N = 148)



Adversaries of FES (N = 346)



Conspiracy (27%)

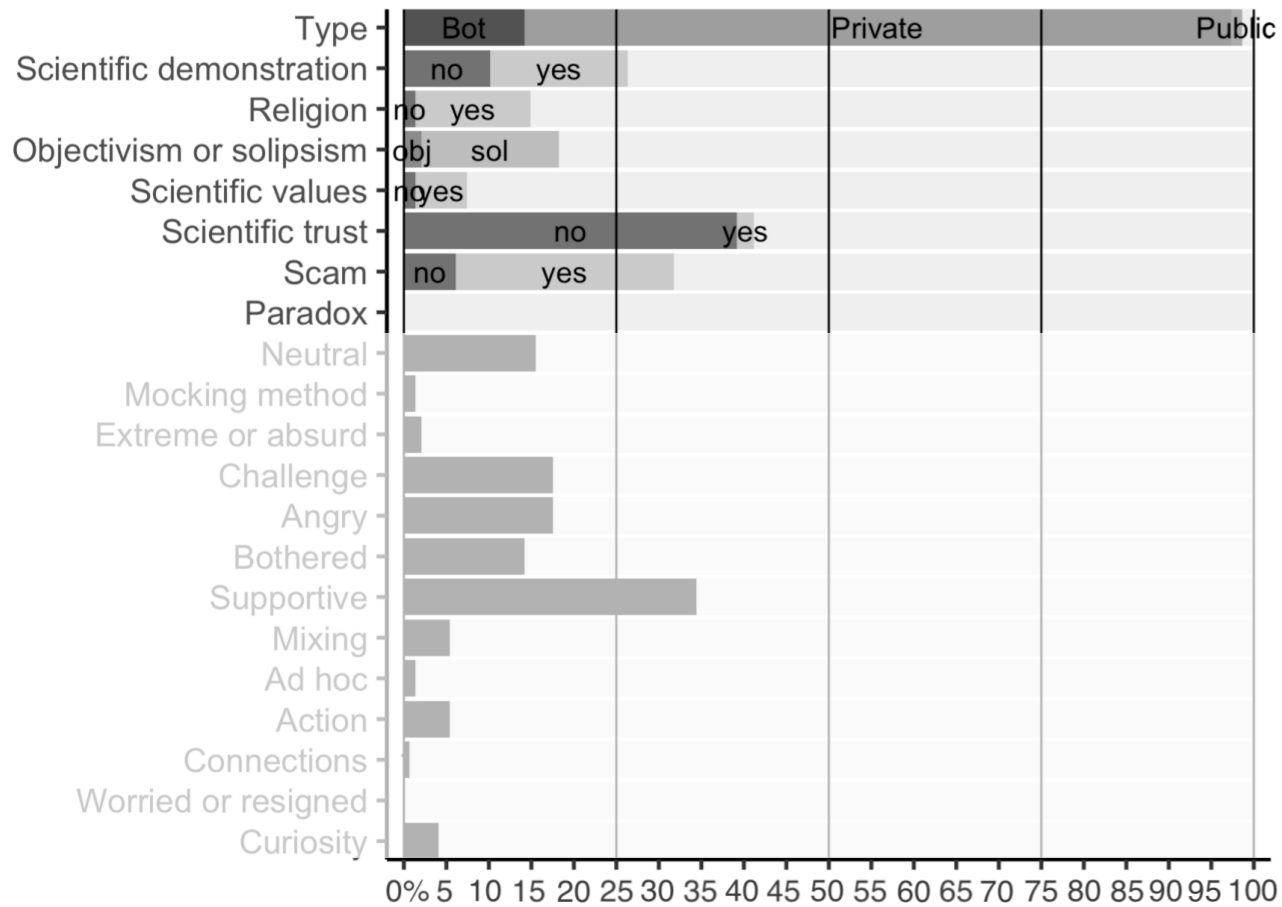
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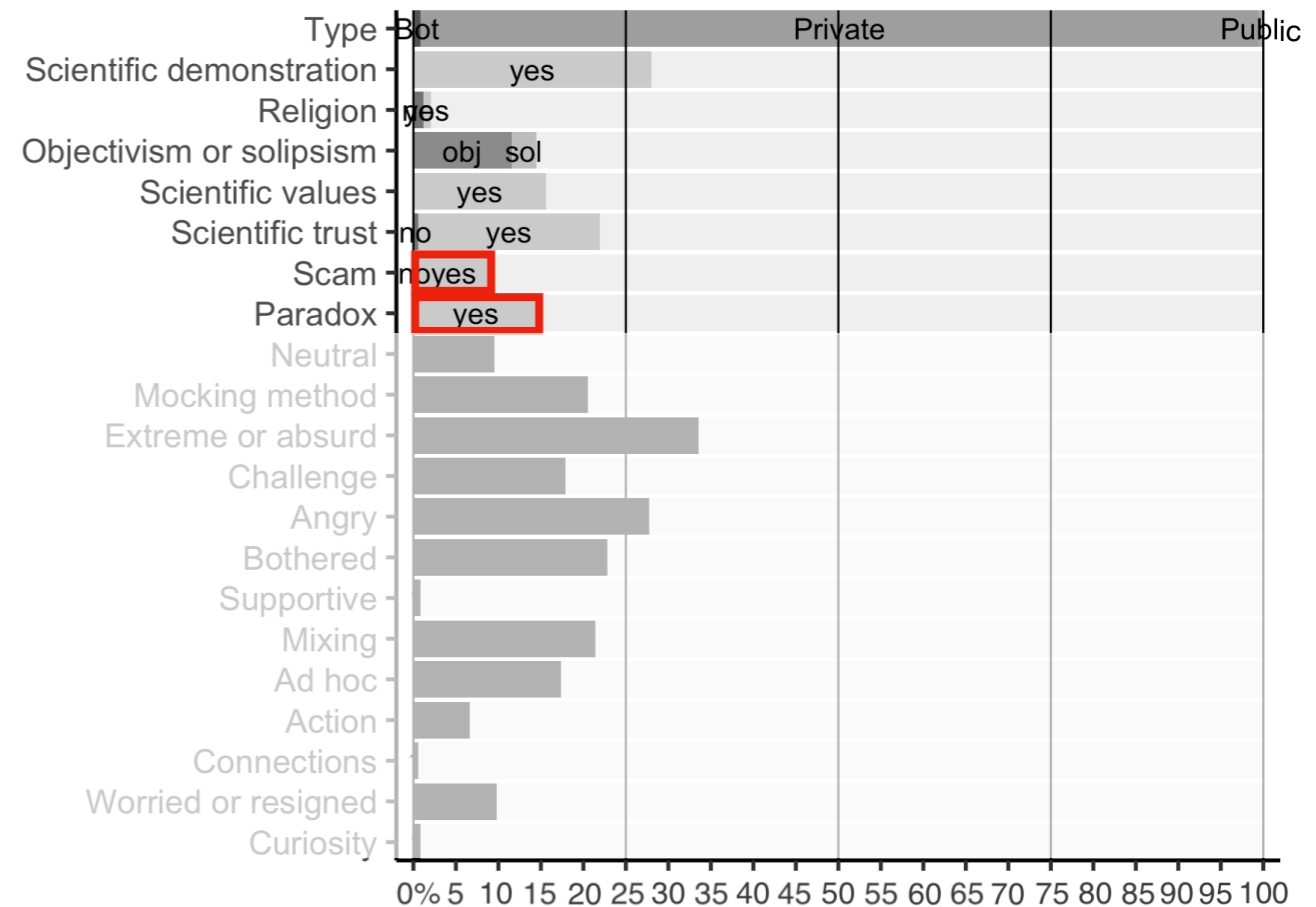
Debunkers (12%)



Supporters of FES (N = 148)



Adversaries of FES (N = 346)



Conspiracy (27%)

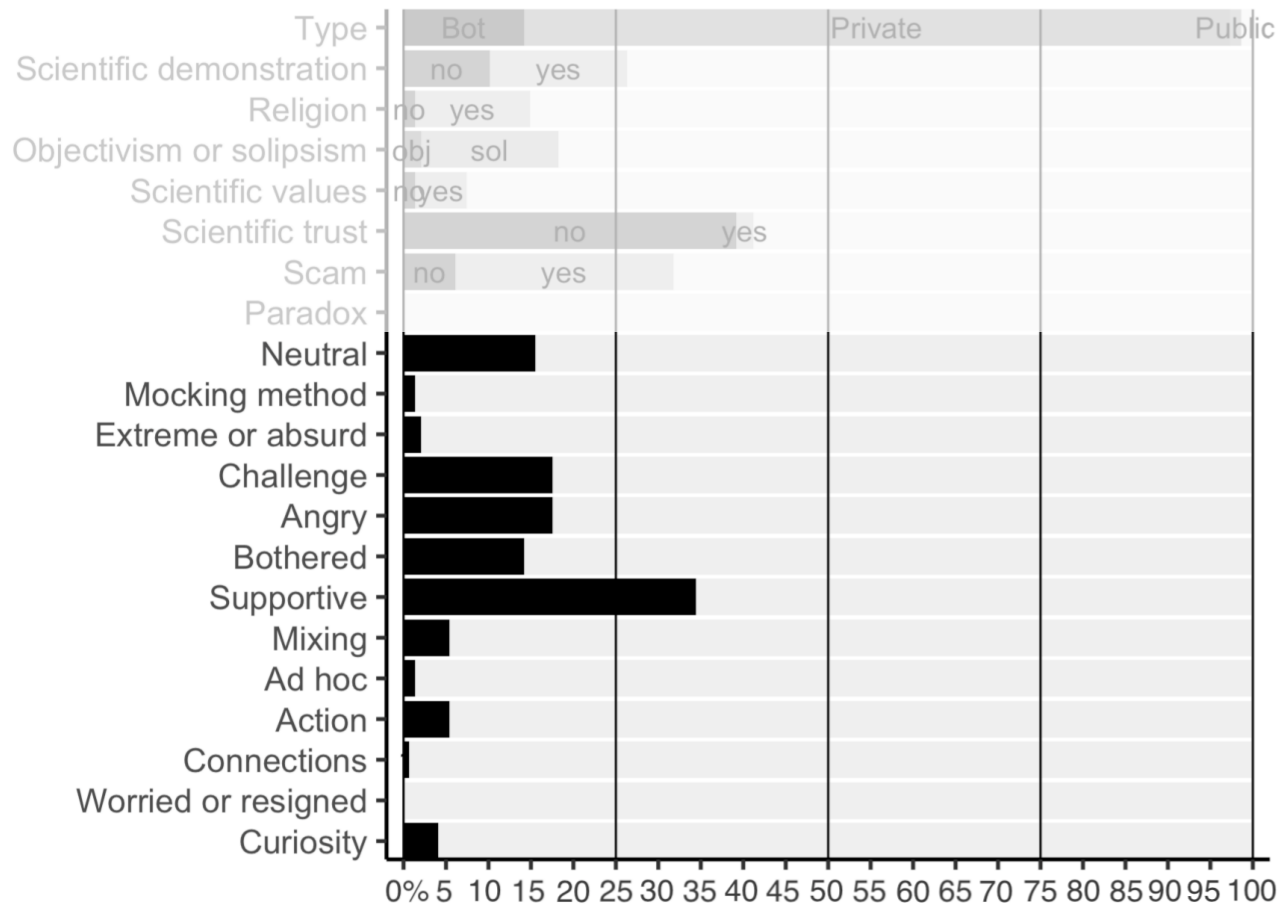
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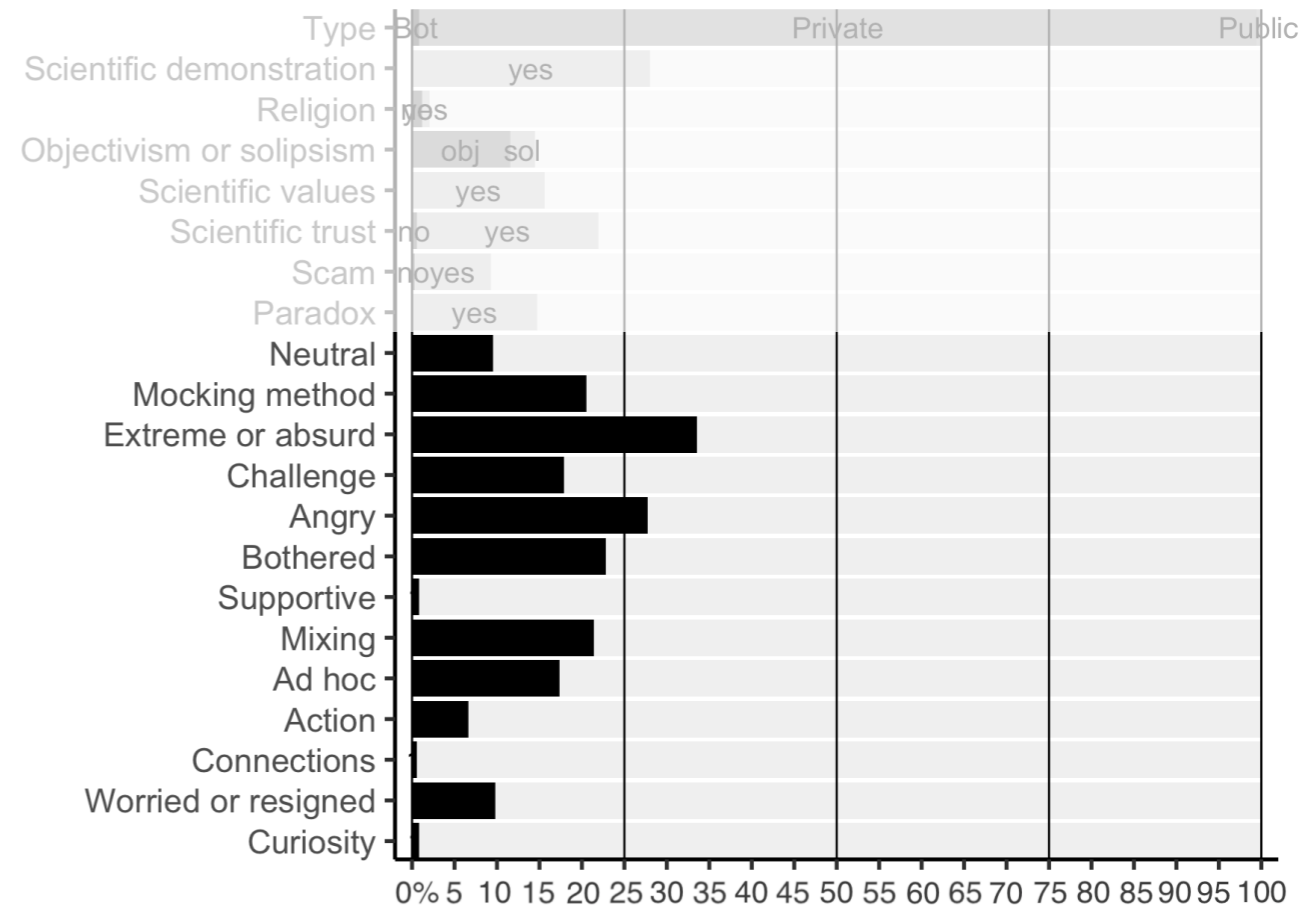
Debunkers (12%)

Skepticals (23%)

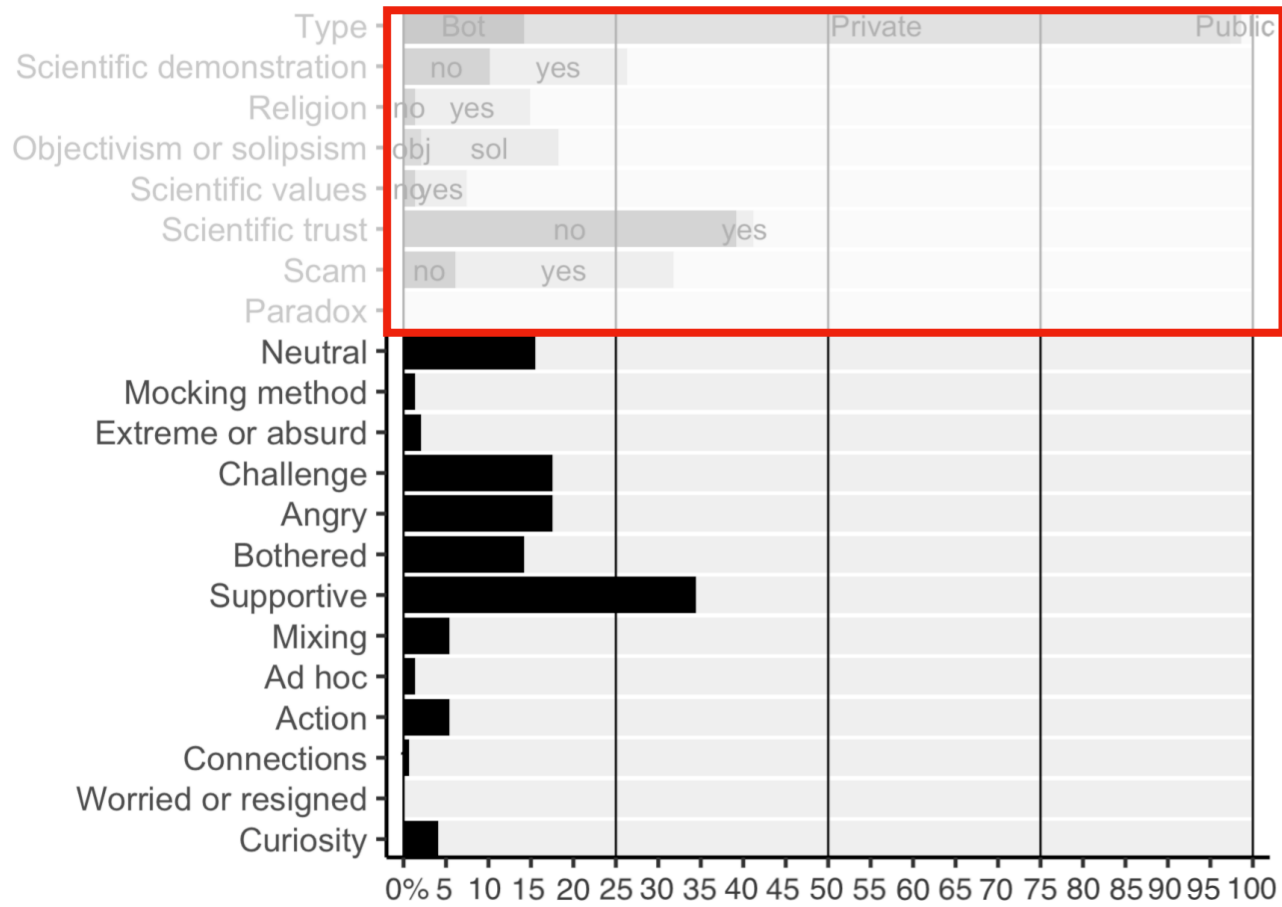
Supporters of FES (N = 148)



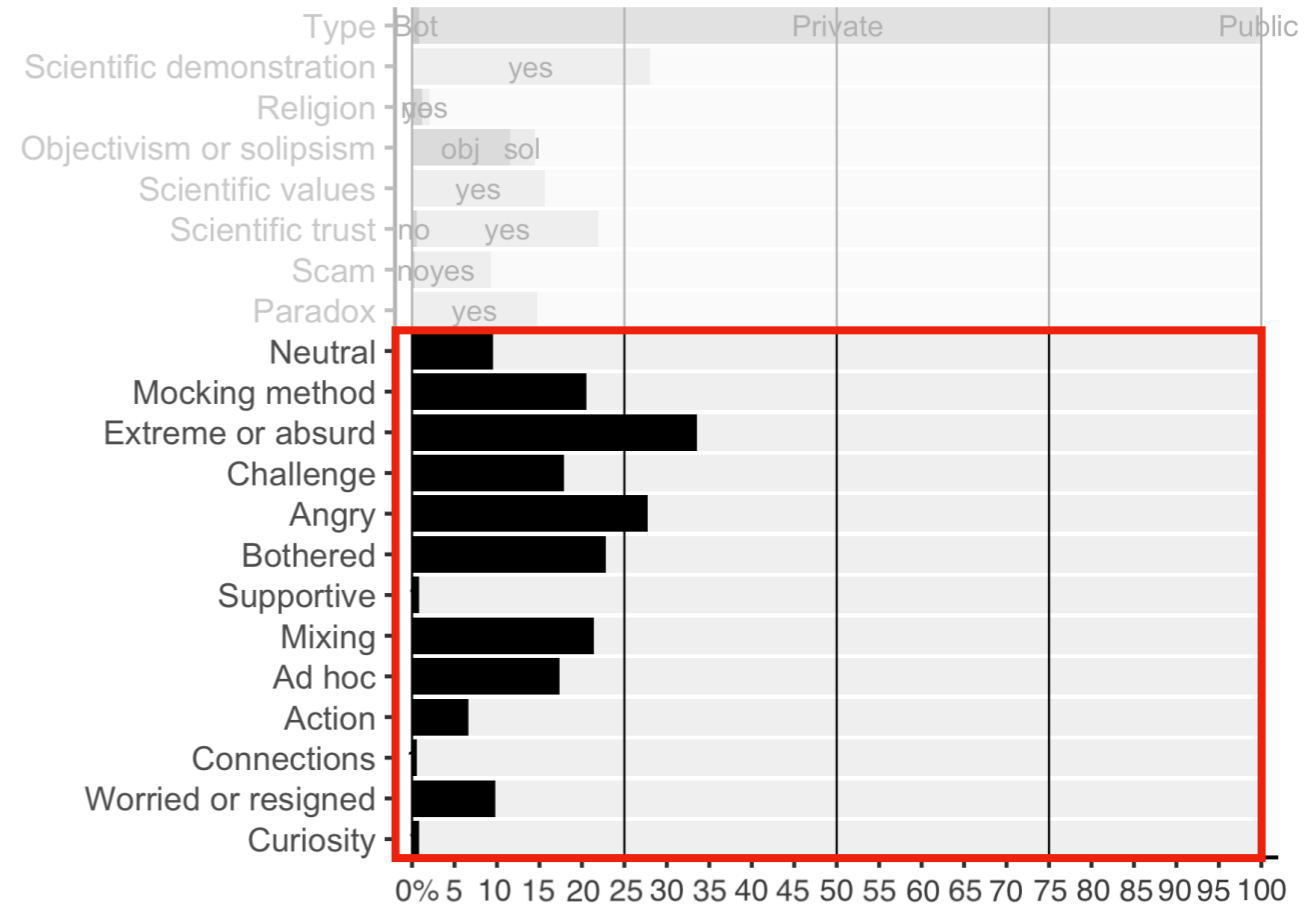
Adversaries of FES (N = 346)



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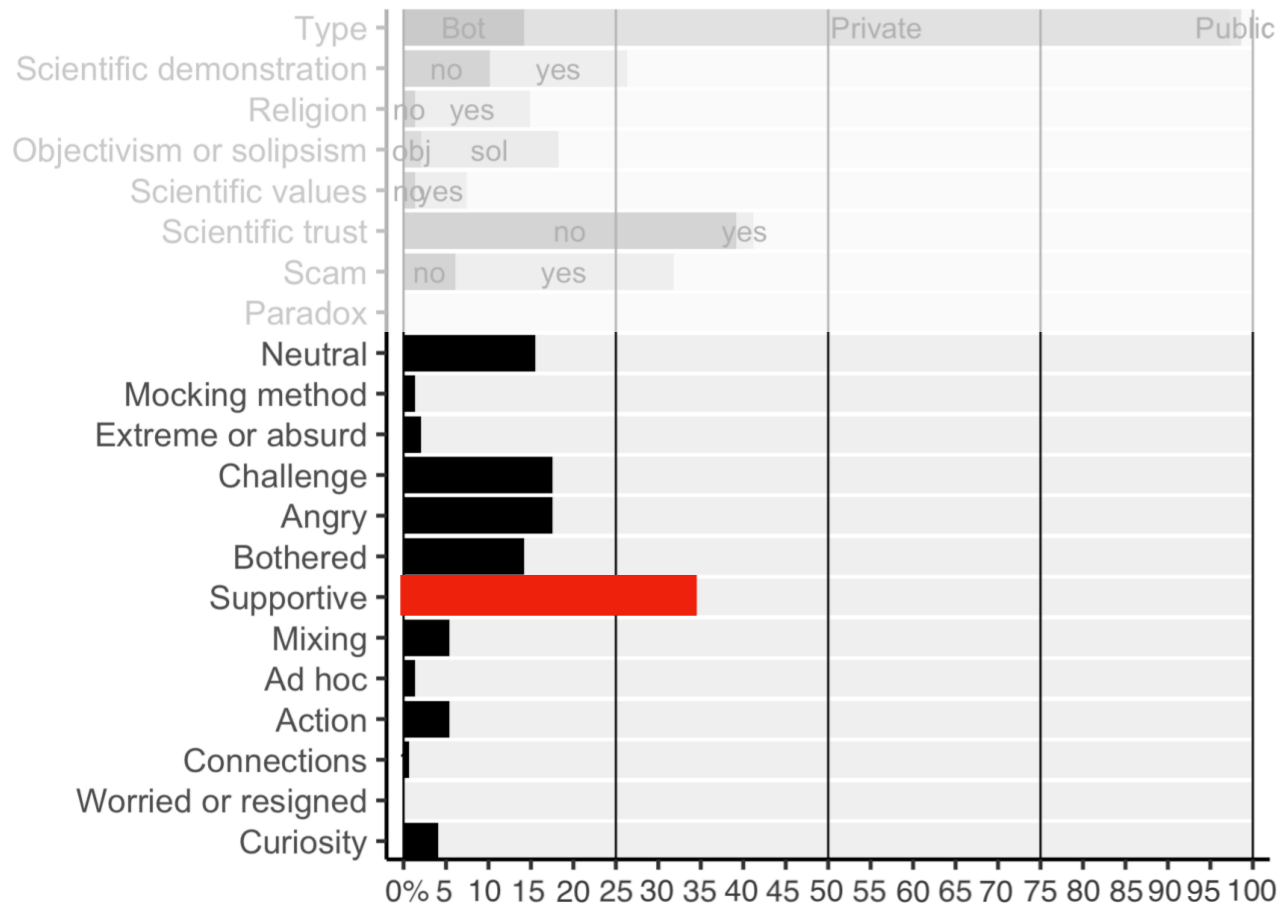


Adversaries of FES (N = 346)

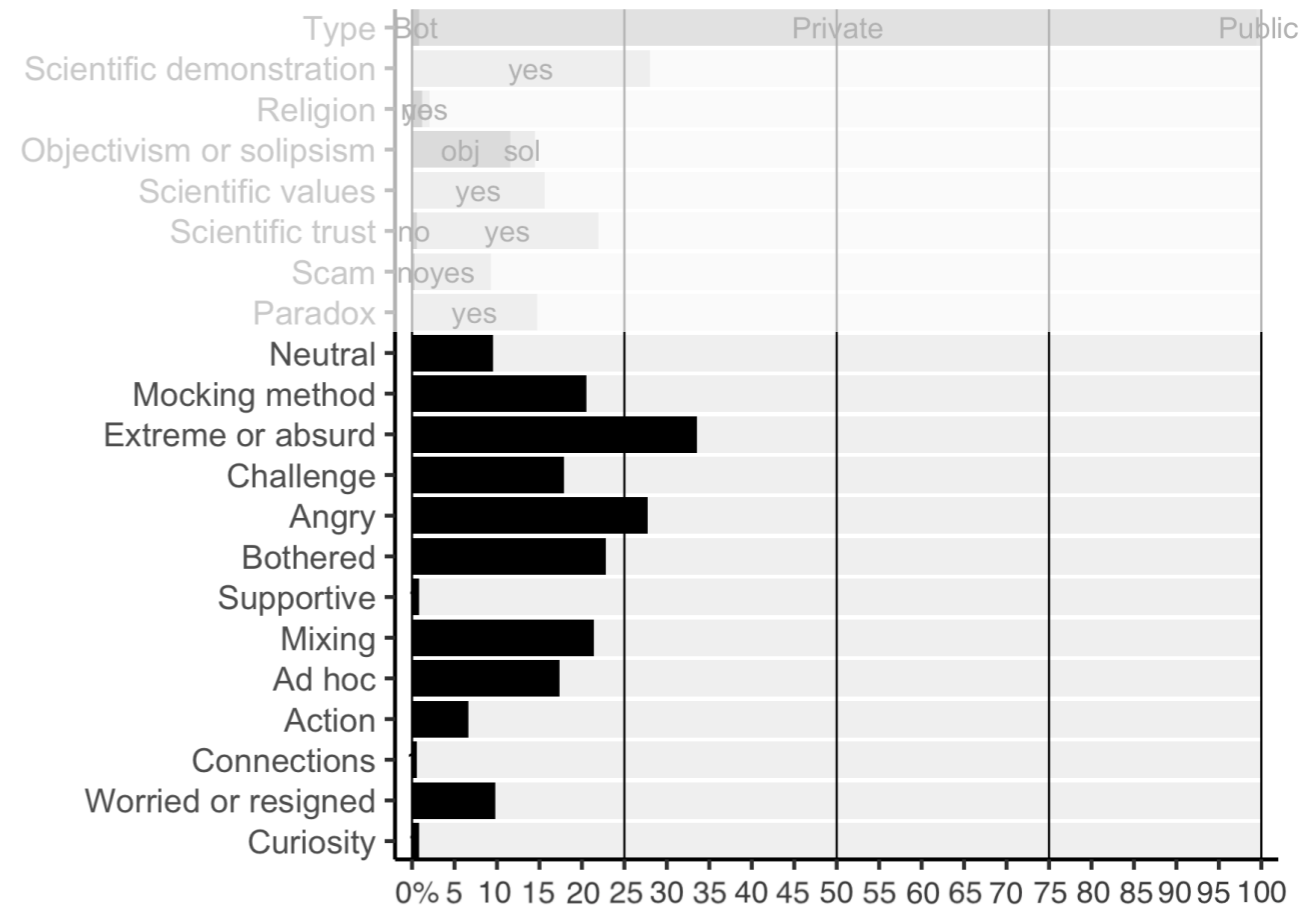


More active in framing strategies

Supporters of FES (N = 148)



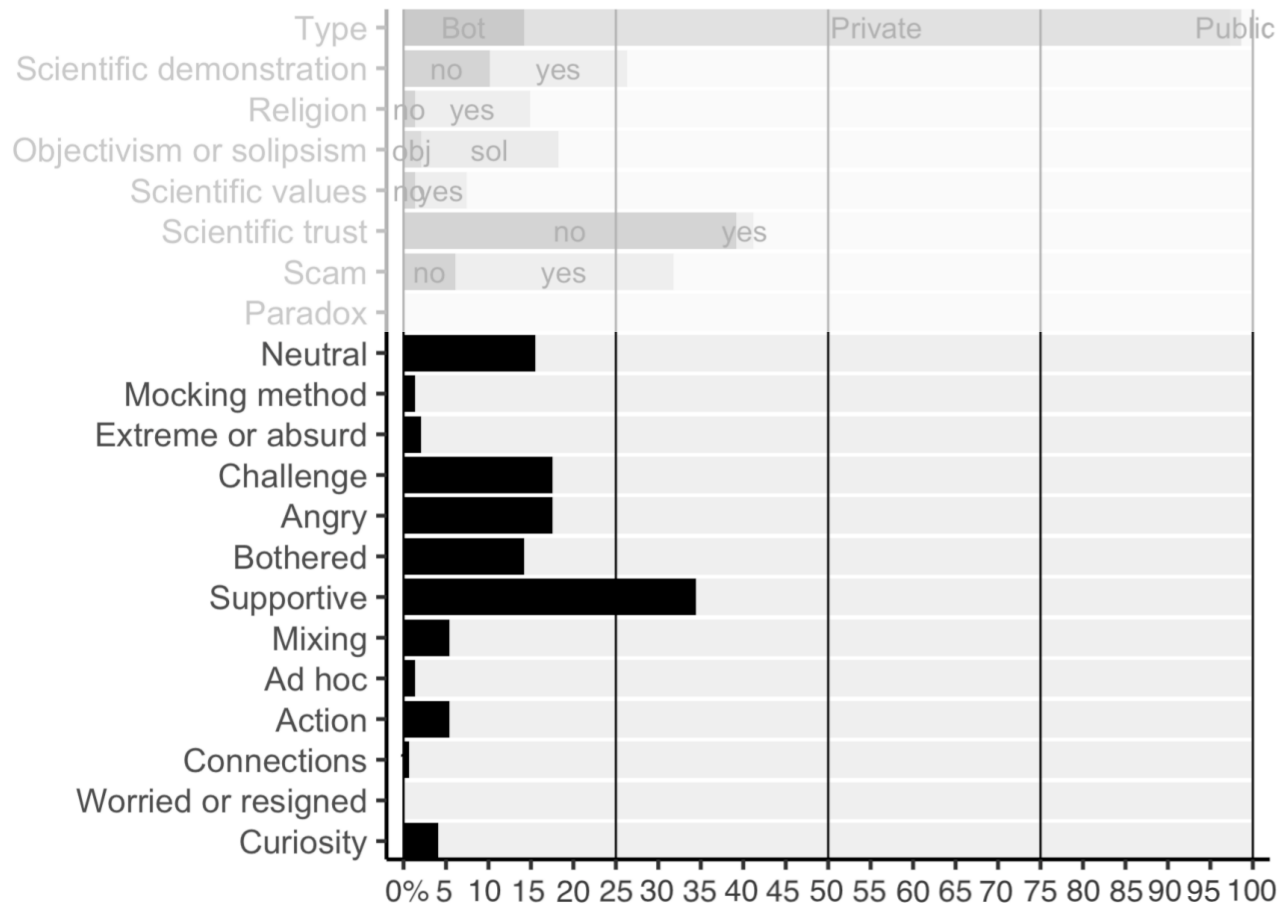
Adversaries of FES (N = 346)



Social boundary: ingroup

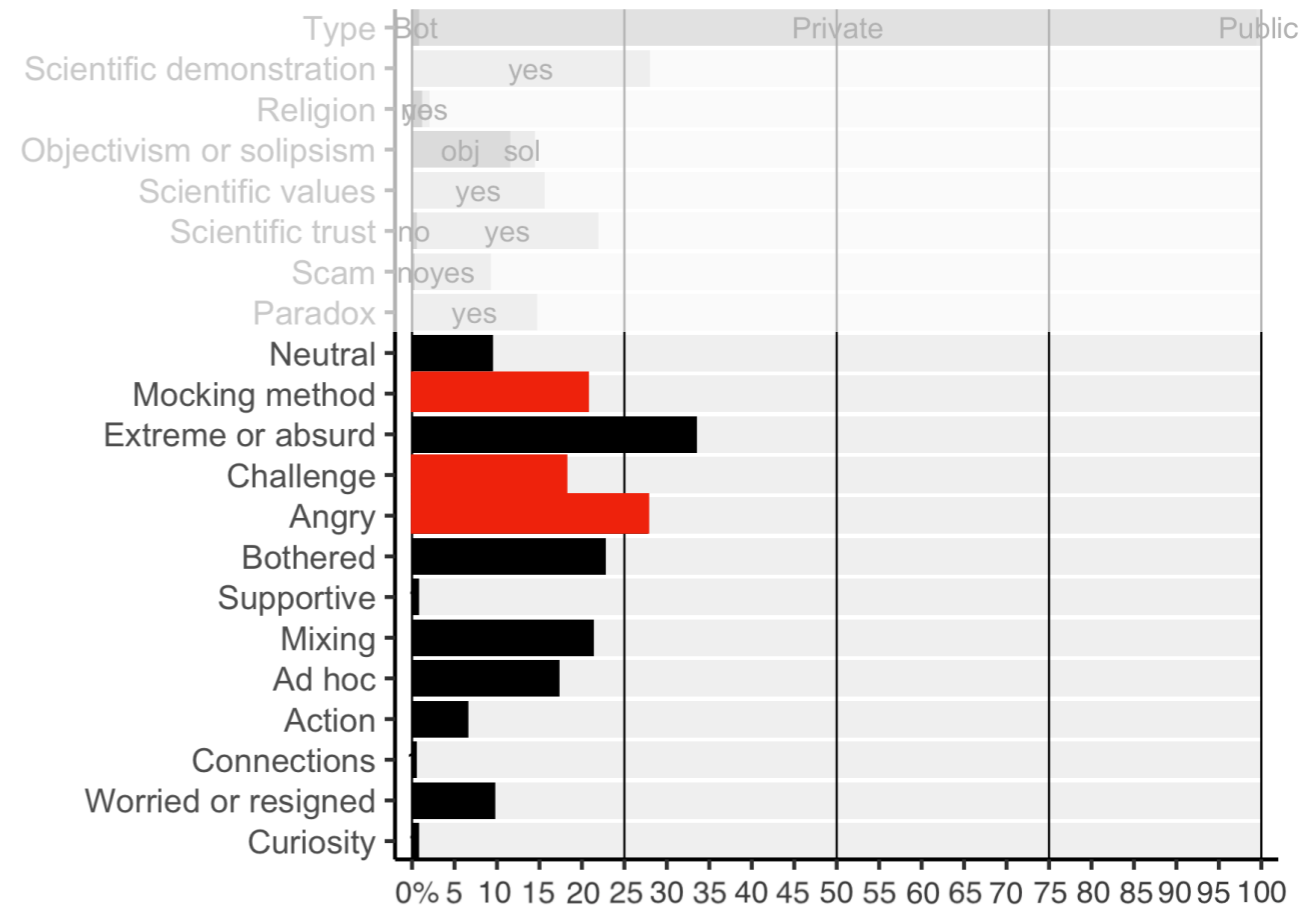
More active in framing strategies

Supporters of FES (N = 148)



Social boundary: ingroup

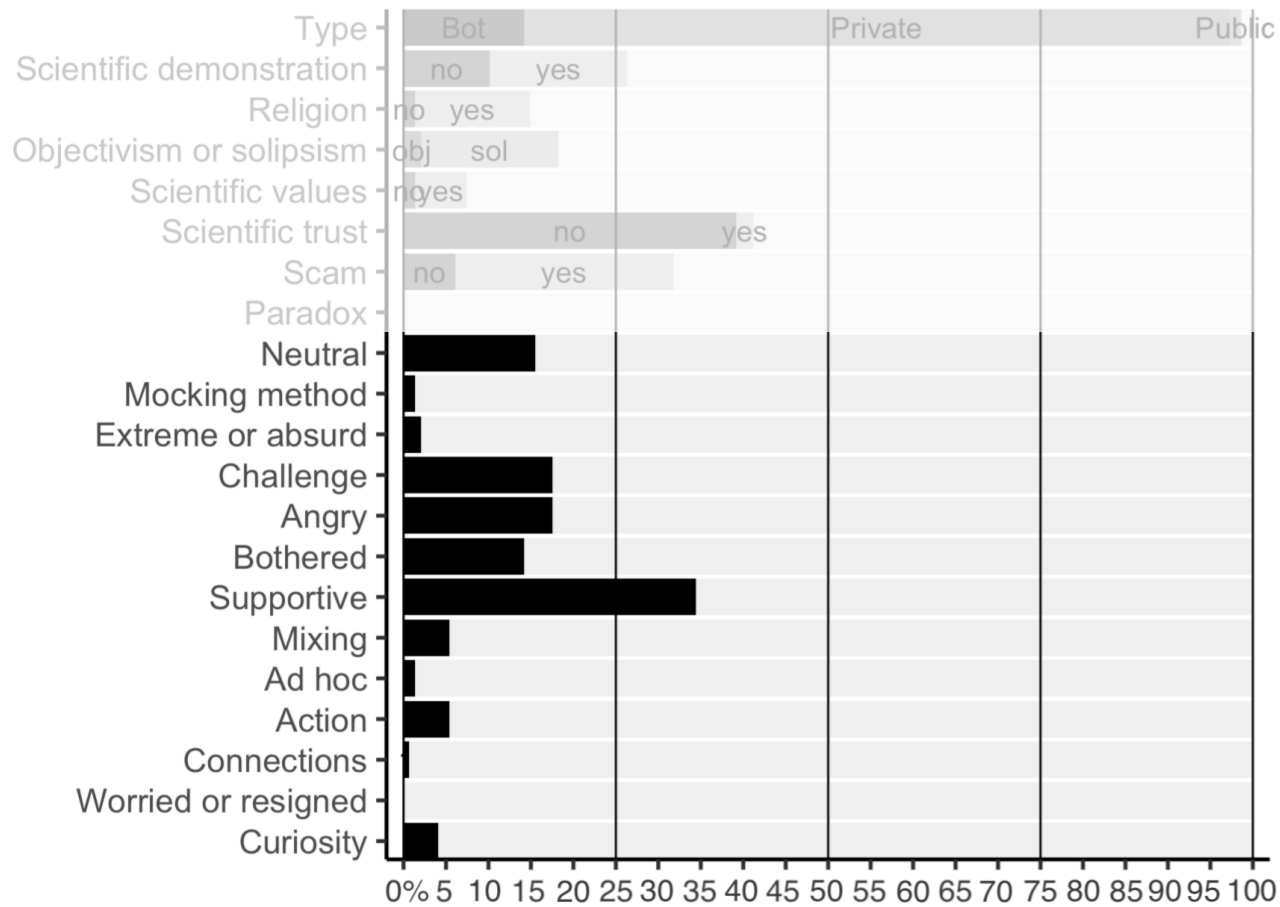
Adversaries of FES (N = 346)



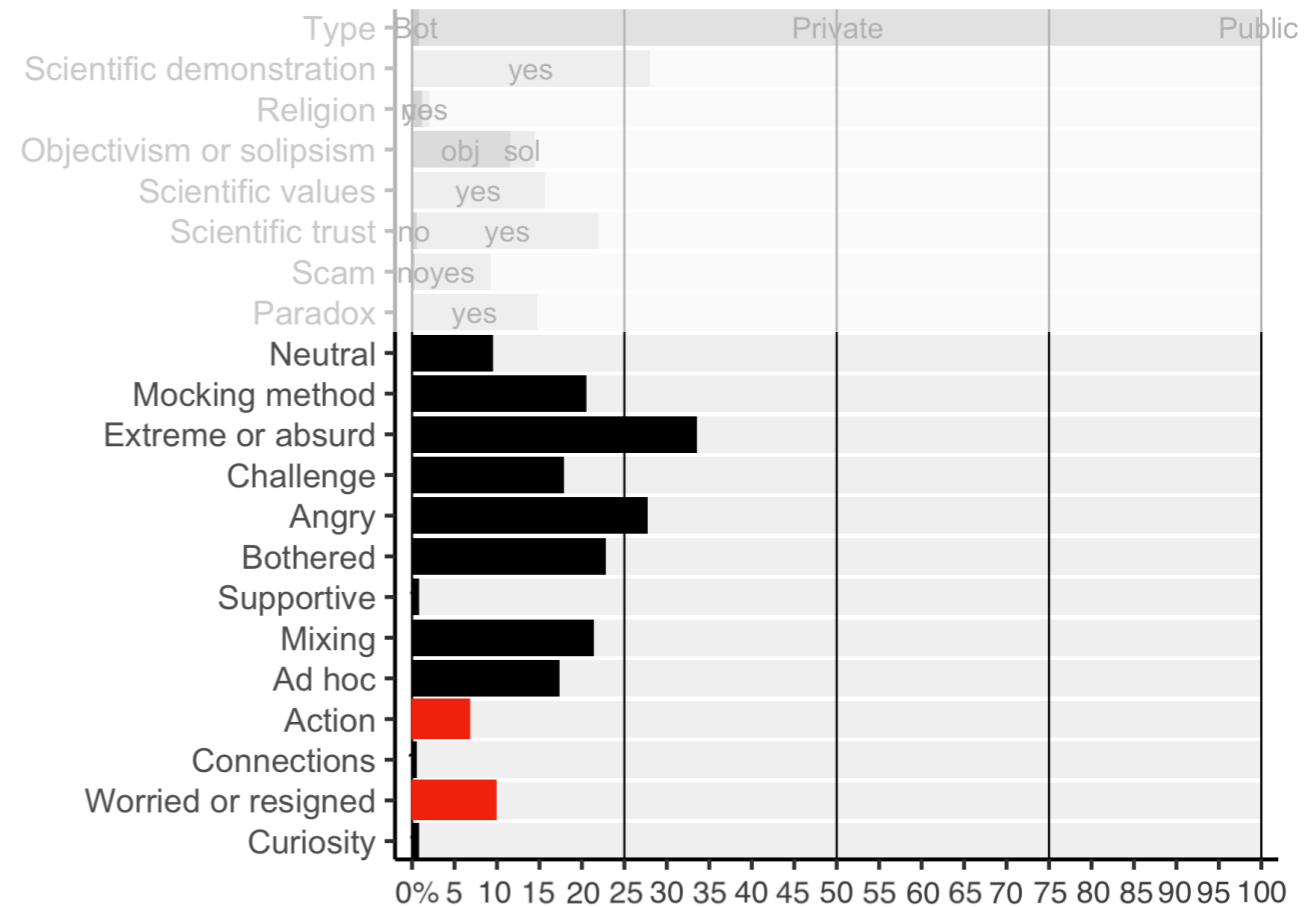
More active in framing strategies

Social boundary: outgroup

Supporters of FES (N = 148)



Adversaries of FES (N = 346)



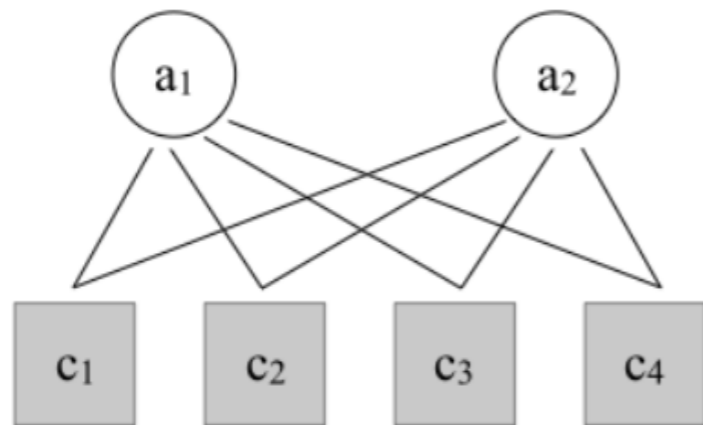
Social boundary: ingroup

More active in framing strategies

Social boundary: outgroup

Normative boundary: educate or ignore

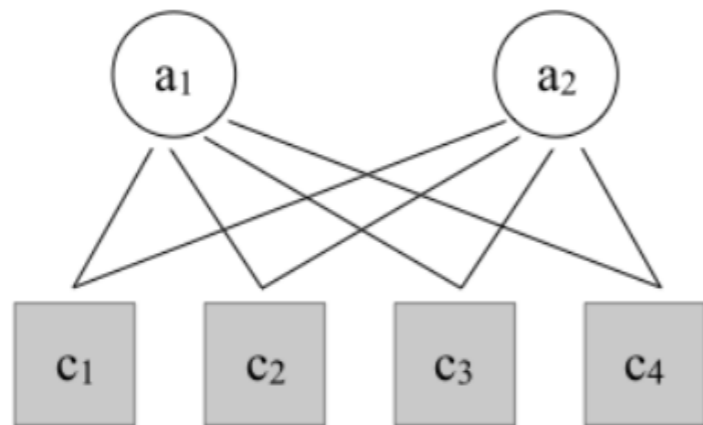
# Actor-congruence



**Measures of network clusterization (ED1 = 0.17, ED2 = 0.51)**

		Actor-Congruence	
Supporters	Modularity	0.33	+
	Edge density	0.17	-
Adversaries	Modularity	0.20	-
	Edge density	0.34	+

# Actor-congruence

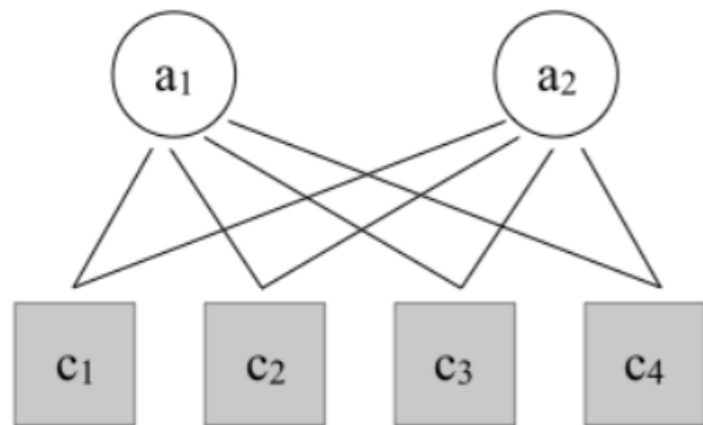


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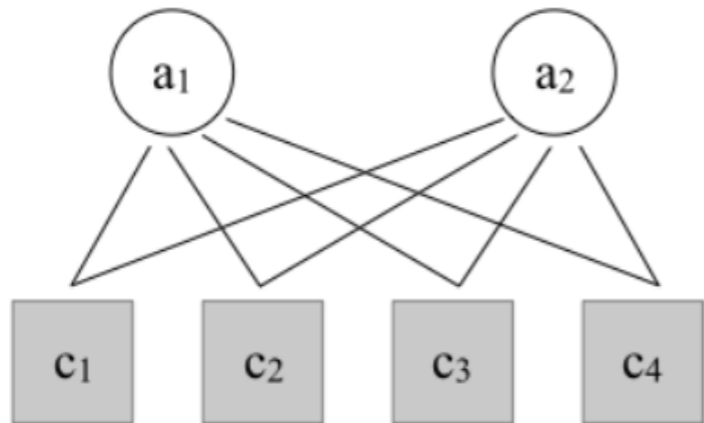
# Actor-congruence



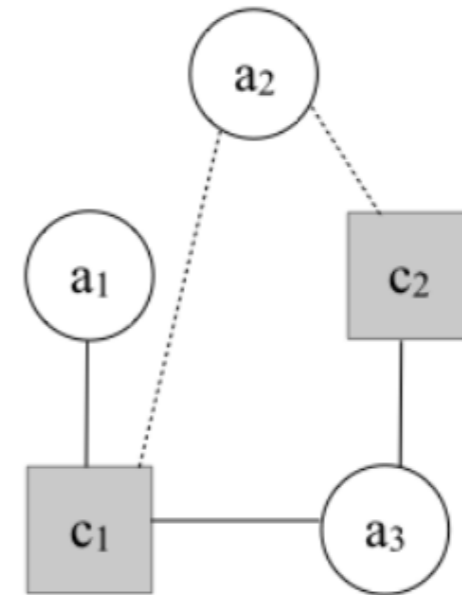
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## Actor-congruence



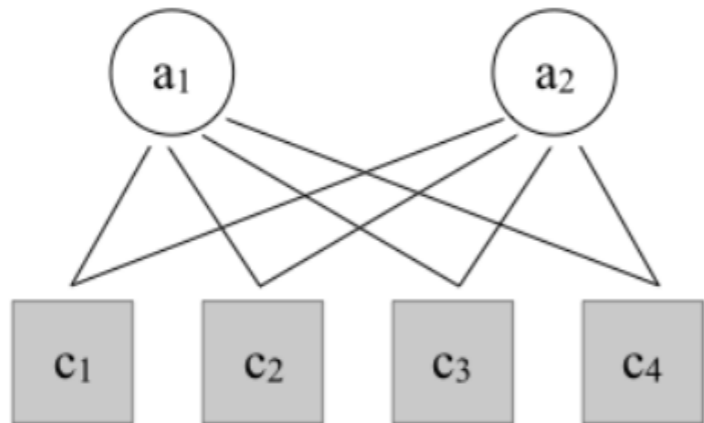
## Conflict



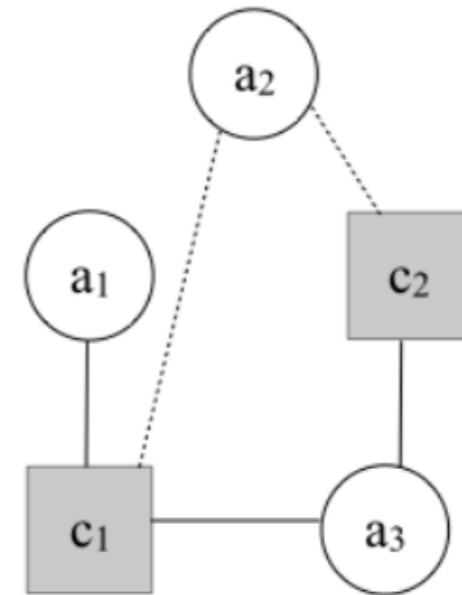
### Measures of network clusterization (ED1 = 0.17, ED2 = 0.51)

		Actor-Congruence	Conflict
Supporters	Modularity	0.33	+ 0.18
	Edge density	0.17	- 0.15
Adversaries	Modularity	0.20	- 0.17
	Edge density	0.34	+ 0.19

## Actor-congruence



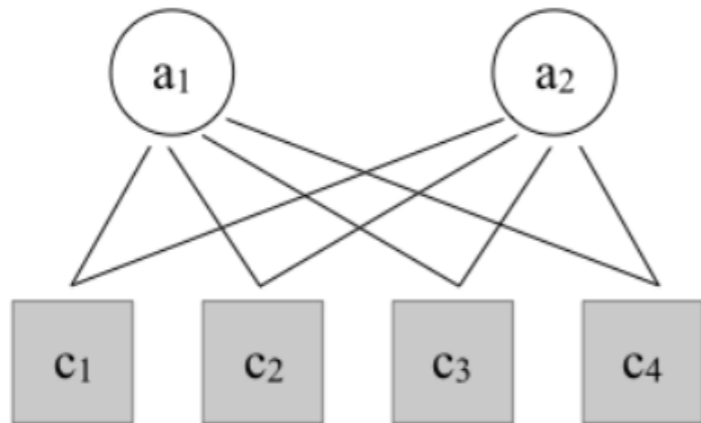
## Conflict



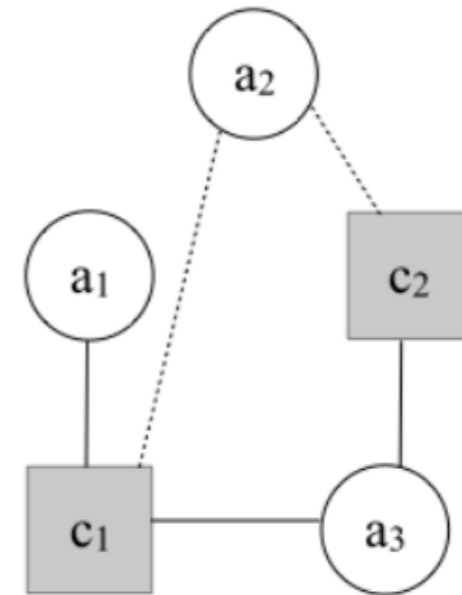
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## Actor-congruence



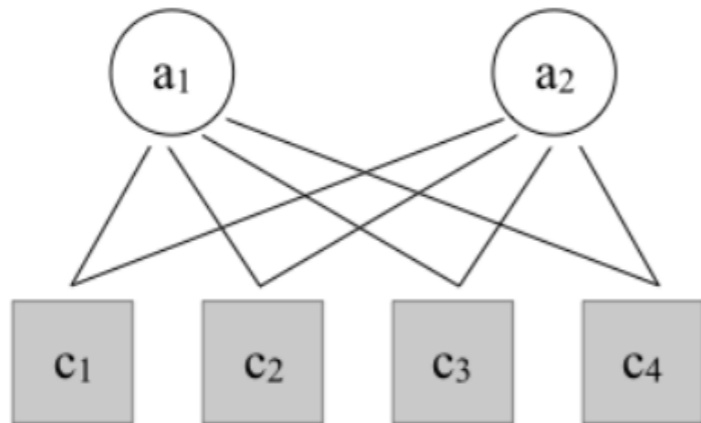
## Conflict



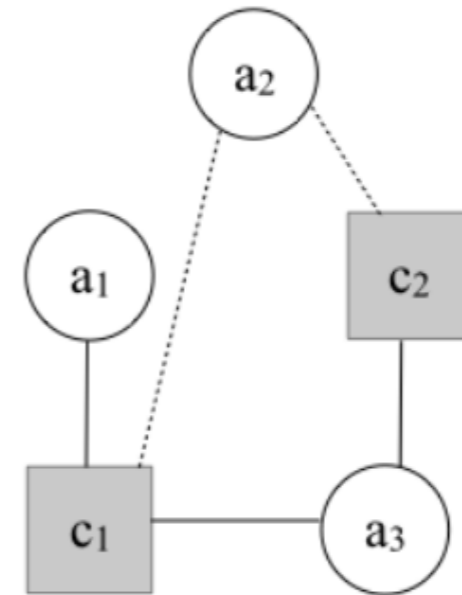
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## Actor-congruence



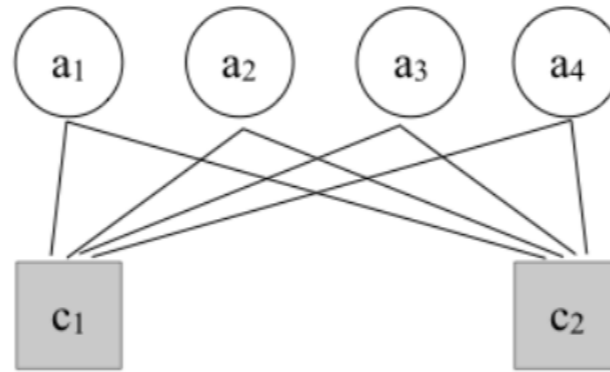
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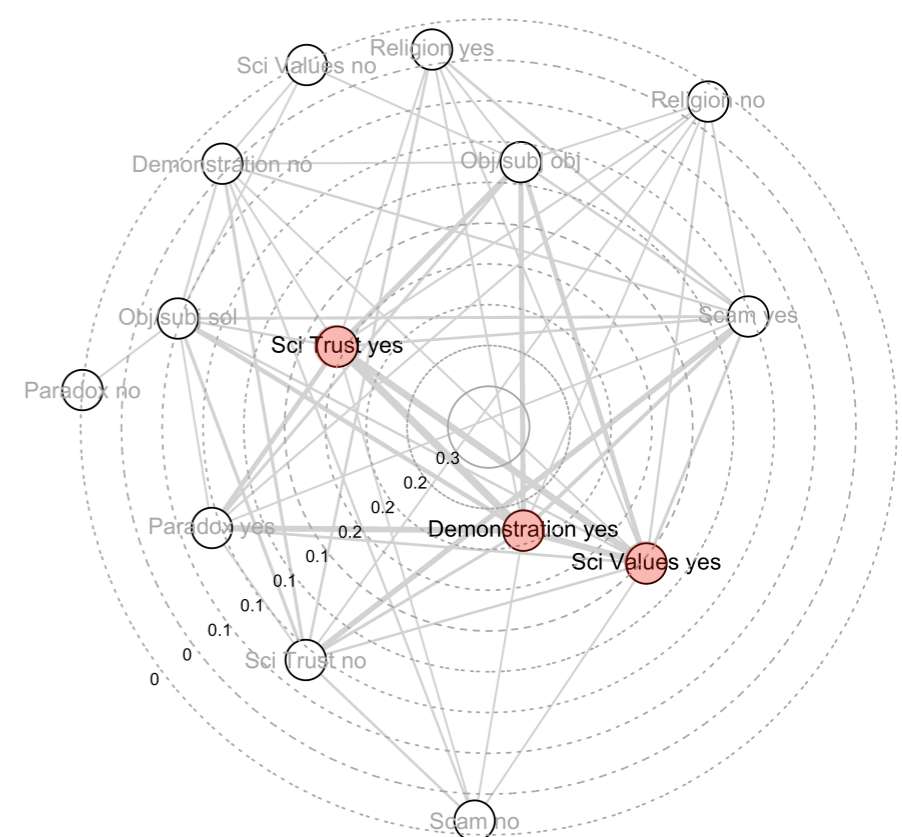
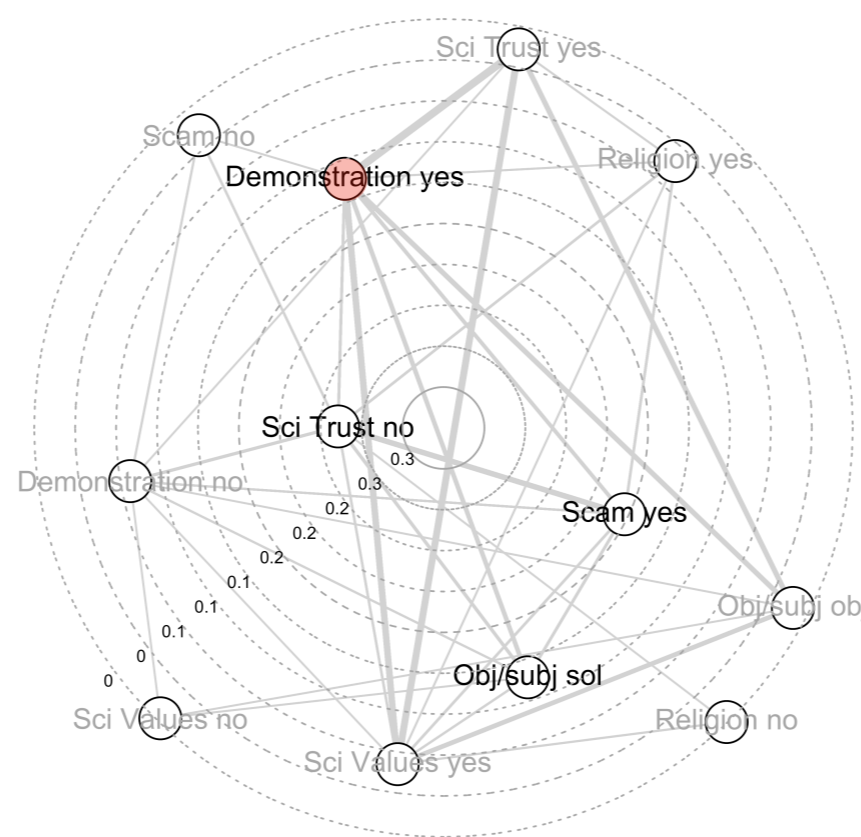
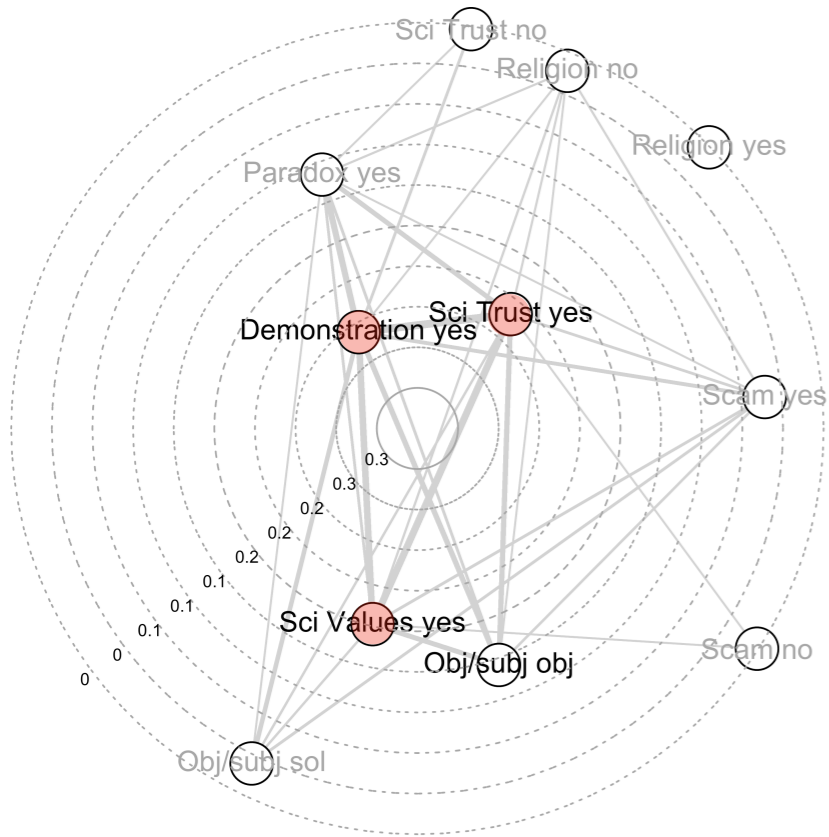
# Concept-congruence



Adversaries

Supporters

Total





## 1. Heterogeneity of positions



1. Heterogeneity of positions
2. Social and normative boundaries

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3. Entities:
  - supporters as pseudo-scientists
  - adversaries as gatekeepers

1. Heterogeneity of positions
2. Social and normative boundaries
3. Entities:
  - supporters as pseudo-scientists
  - adversaries as gatekeepers
4. Adversaries are the dominant coalition

1. How is the process of agenda-setting established?

Periphery → Core

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Periphery → Core

2. Importance of the field: surveys contextualized