THE NEVER ENDING STORY

The Cultural Evolution of Narratives

Part IX...
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The Cultural Evolution of Narratives

By Joe Stubbersfield
FAKE NEWS!
“Fake News”

- Major contemporary issue
- Negative effect on
  - Polarisation
  - Democracy
  - Trust
- Role in key events i.e. Brexit, 2016 US election
But what is Fake News?

(Wardle, 2017)
But what is Fake News?

• Contemporary version of conspiracy theories, urban legends etc.
• Ultimately: more stories
• Subject to same cultural evolutionary processes as other narratives
• Apparently very successful
Vosoughi, Roy & Aral 2017

• Diffusion of verified true and false news
• 4.5million tweets 2006 - 2017: ~3million users tweeting ~126,000 news stories
• Number of ‘cascades’: unbroken retweet chain with common origin
Vosoughi, Roy & Aral 2017

- True stories 6 x as long to reach 1500 people
- 20 x as long to reach cascade depth of 10
Vosoughi, Roy & Aral 2017

• True stories 6 x as long to reach 1500 people
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Cultural Evolution and Fake News

• Exploitation of biases
• Social information
• Negativity Bias
• Ingroup favouritism/outgroup negativity
• MCI etc.
Biases and Fake News

Acerbi 2019

• Content analysis
• 260 fake news articles
• Coded for presence of bias-evoking content
• 86% contained relevant content
Content biases and fake news
Social Information Bias

• Social information bias
• Greater intelligence - Forming and keeping track of alliances and relationships in a large, complex social groups
• Attend to, recall and transmit social information
Social Information Bias

Acerbi 2019

• Social interactions and gossip (50%)
• Celebrity content (48%)
• Most common
Content biases and fake news
Negativity Bias

Vosoughi, Roy & Aral 2017
• Common emotions: fear, disgust, and surprise

Acerbi 2019
• < 10% coded as positive
• Negative 5 x more numerous
• ~15% elicited disgust (largely absent from real news)
Negativity Bias

Vosoughi, Roy & Aral 2017
• Common emotions: fear, disgust, and surprise

Acerbi 2019
• < 10% coded as positive
• Negative 5 x more numerous
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But why might this be the case?
Threat bias

Blaine & Boyer 2018
What’s more believable?

“Despite their fierce appearance, German shepherds are considered loyal and intelligent pets. A recent study in the U.S. notes that other breeds of dog are responsible for 89% of dog attacks”

“Although proponents consider German shepherds loyal and intelligent pets, a recent study in the U.S. notes that this breed is responsible for 11% of dog attacks”
What’s more believable?

“Many people find rare ground beef patties delicious. However, 13% of ground beef patties contain bacteria that could cause illness if eaten rare”

“Many people find rare ground beef patties delicious. 87% of ground beef patties are free of bacteria that could cause illness if eaten rare.”
Negativity Credulity: Fessler et al 2014

• Online survey: “Truth or Trash? How Believable is the News today?”
• Two versions with items framed positively or negatively
• Rated statements from 1 - 7
• Rated negatively framed items as more likely to be true
Threat Bias in Fake News

Acerbi 2019

• ~30% were threat related
• Fake News about killers, bombers, sexual offenders
Outgroup threats

• Negativity/Threat + Ingroup/Outgroup
• Powerful combination of biases
Outgroup Negativity in Fake News
Other biases?

• Sex and romance? disgust
• Sexual themes in 17% of articles (Acerbi, 2019)
• Commonly involved disgusting content
Other biases?

• MCI?
Other biases?

- MCI?
- Relatively low – 13% (Acerbi, 2019)
Other biases?

• MCI?
• Relatively low – 13% (Acerbi, 2019)
• ‘News’ format requires higher credibility than stories?
Conclusions

• Fake News = contemporary issue
• Appeal can be explained by cultural evolution
• Exploits cognitive biases
  • Social info
  • Negativity/threat
  • Ingroup positivity/Outgroup negativity