THE NEVER ENDING STORY

The Cultural Evolution of Narratives

Part VI...
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The Cultural Evolution of Narratives

By

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Drawn to the Darkside

- Monsters seem to be universal (Asma, 2009; Gilmore, 2003; Wengrow, 2014)
- Folklore often features horrifying material (Thompson, 1946)
- Horror is a hugely popular genre of entertainment across multiple medias (Clasen, 2017; 2018)
The Horror Paradox

• If stories are entertainment, why are they often so nasty?
• Evoking fear, disgust, anger and despair?
• Why are stories which evoke negative emotions successful?
What are content biases?

- Cognitive disposition towards preferentially learning, recalling and transmitting certain types of information over others
- Disposition could have evolved as a useful function in our evolutionary past
- Shaped the way culture has been transmitted and has evolved
Emotional content bias

- Known to be important in storage and recall of memories in individuals (LaBar & Cabeza 2006)
- Thought to play a major role in the transmission of cultural knowledge and beliefs (Whitehouse 2004)
How might emotions influence cultural evolution of narratives?
Disgust Bias

Heath, Bell & Sternberg 2001

• Transmission chain study
• Advantage for more disgusting urban legends
• Reflected in distribution of urban legends online
Disgust Bias

Eriksson & Coultas 2014

- Expanded on Heath et al (2001)
- Used urban legends in transmission experiment
- Varied is levels of disgust:
  - High: “When returning to clean up the kitchen Jasmine found that the flour she had used was infested with maggots”
  - Low: “When returning to clean up the kitchen Jasmine tasted the cake mix and found it tasted better than ever.”
Disgust Bias

Eriksson & Coultas 2014

- More disgusting urban legends more faithfully transmitted

![Graph showing mean recall across generations with error bars for high and low disgust conditions.](image-url)
Disgust Bias

Eriksson & Coultas 2014

- Prefer to read and pass on more disgusting urban legends

![Graph showing mean number of stories retained across different steps and conditions](image)
Disgust Bias

• But disgust is not the only emotion evoked by horror stories
• A general bias for negative emotional content?
Negativity Bias in Transmission

Bebbington et al 2017

• Transmission chain design
• Story about a woman flying to Australia
• Positive: “When (the air hostess) returned she told Sarah that she would be moved to business class”
• Negative: “The man in the seat next to her seemed to have a nasty cold”
• Ambiguous: “Walking down the concourse, Sarah saw a young man take an old women's bag” i.e. stole the women's bag (negative) or helped her carry it (positive)
Negativity Bias in Transmission

Bebbington et al 2017
• Negative events survived better
• 60% of negative events preserved in final version
• 30% of positive events preserved in final version
Negativity Bias in Transmission

- Resolved ambiguous events mostly became negative
Negativity Bias in Literature

Morin & Acerbi 2017
• Expression of emotion in Anglophone literature (8 million)
• Decline in use of emotion-related terms
Negativity Bias in Literature

• BUT driven by reduction in positive words
• Negative content did not decline
But why?

• Why would we privilege negative or disgusting information?
• Association with contamination and threat avoidance
• Avoidance of danger is more important for fitness than pursuit of advantages
• Advantageous to focus attention on threats
Threat bias

Blaine & Boyer 2018

• Transmission of danger-related rumours
• Format of a consumer report for acne cream
  – May burn if applied to certain skin types
  – May smell strong while being applied
  – Is a cream-based acne medication
• Select 7 of 8 items to tell friend
• Generated new survey for next participant
Threat bias

Blaine & Boyer 2018
Threat bias

Blaine & Boyer 2018

• Less relevant threat?
• Modified original statements to less likely
  – May burn if applied to certain rare skin types
Threat bias

- Blaine & Boyer 2018
  - Threat is rare
Content biases

Horror stories = “Adaptive threat simulation”  
(Clasen, 2018)
Adaptive Threat Simulation (Clasen, 2018)

- horror = form of benign masochism
- Offers negative emotional stimulation
- through simulation of threat scenarios
Adaptive Threat Simulation (Clasen, 2018)

• Willing to experience aversive emotion
• Emotion is evoked by simulated threats
• Subsequently feel positive for dealing with simulated danger
Conclusions

- Horror stories are widely popular despite evoking negative emotions
- Exploit biases for disgust and negative content
- Driven by bias towards threat information
- Serve as “adaptive threat simulation”