

THE NEVER ENDING STORY

*The Cultural Evolution
of Narratives*



Part VI...

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of Narratives*



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Horror



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)
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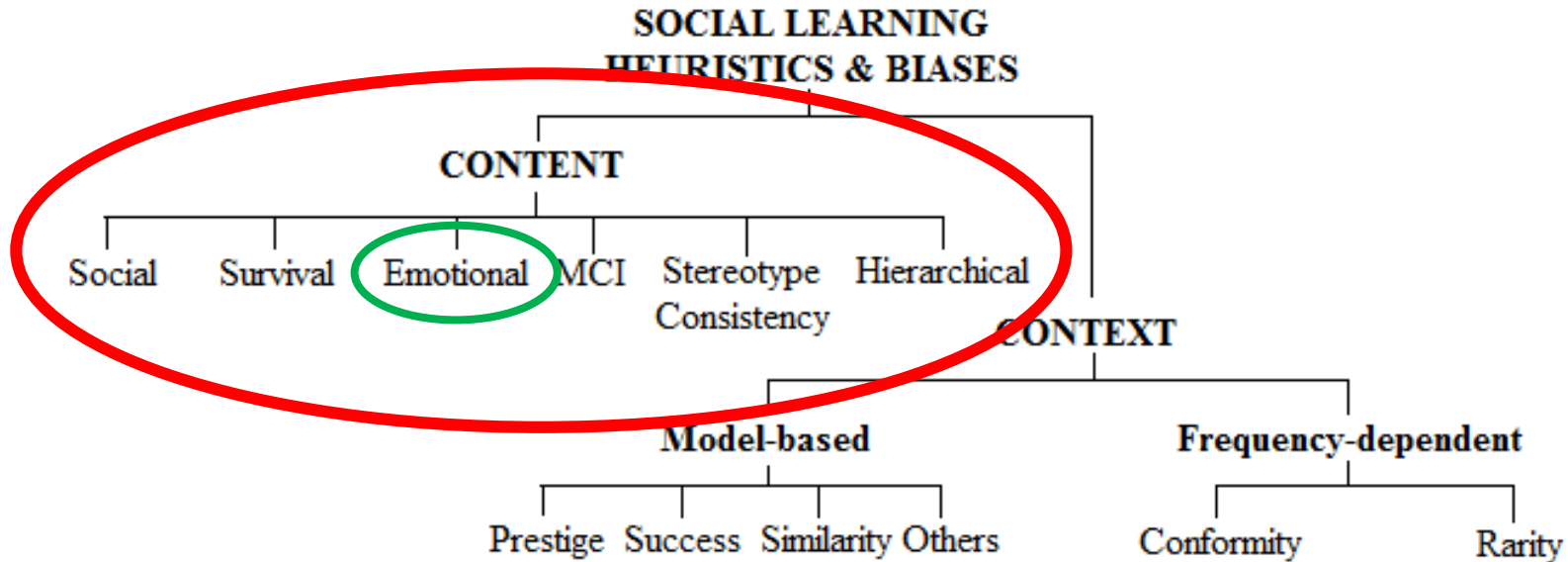


The Horror Paradox

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



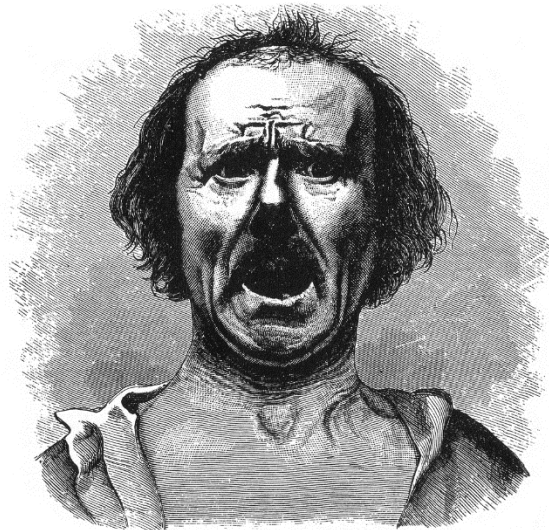
What are content biases?



- 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

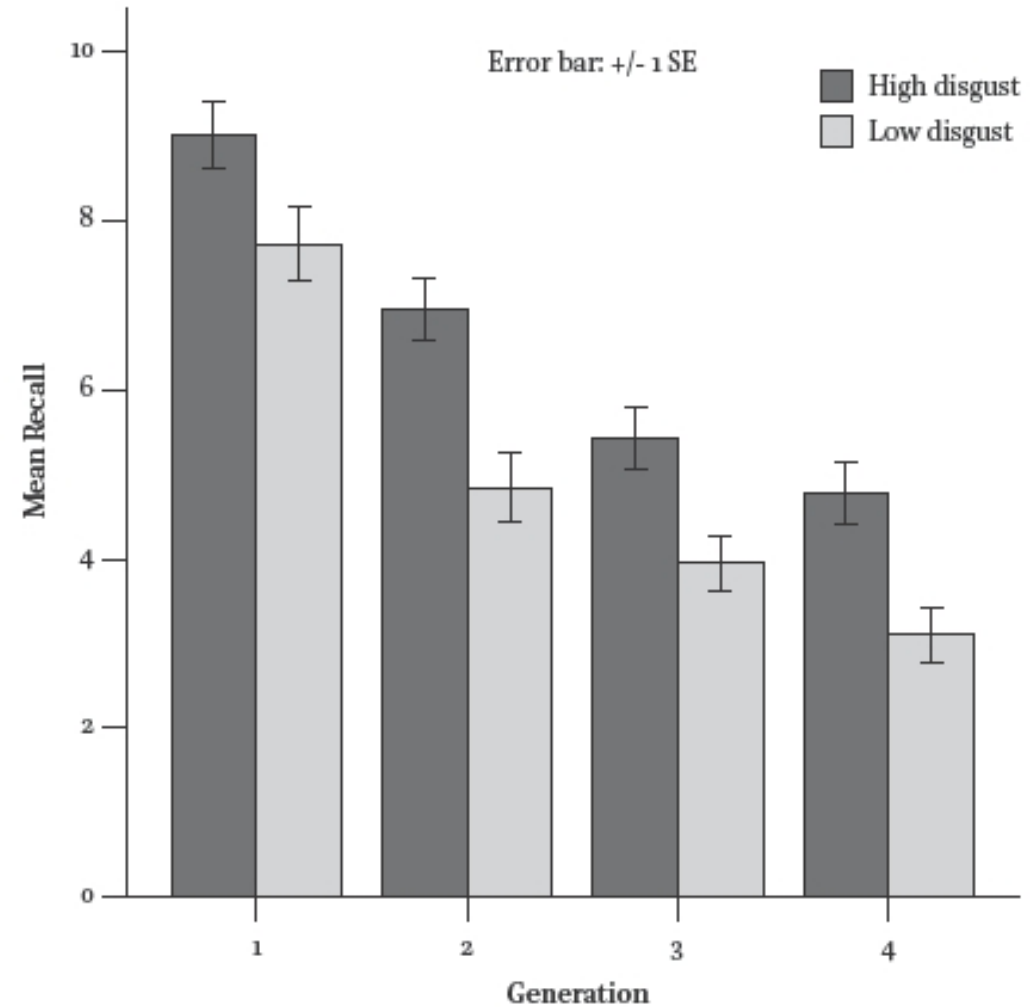
Eriksson & Coultas 2014

- 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

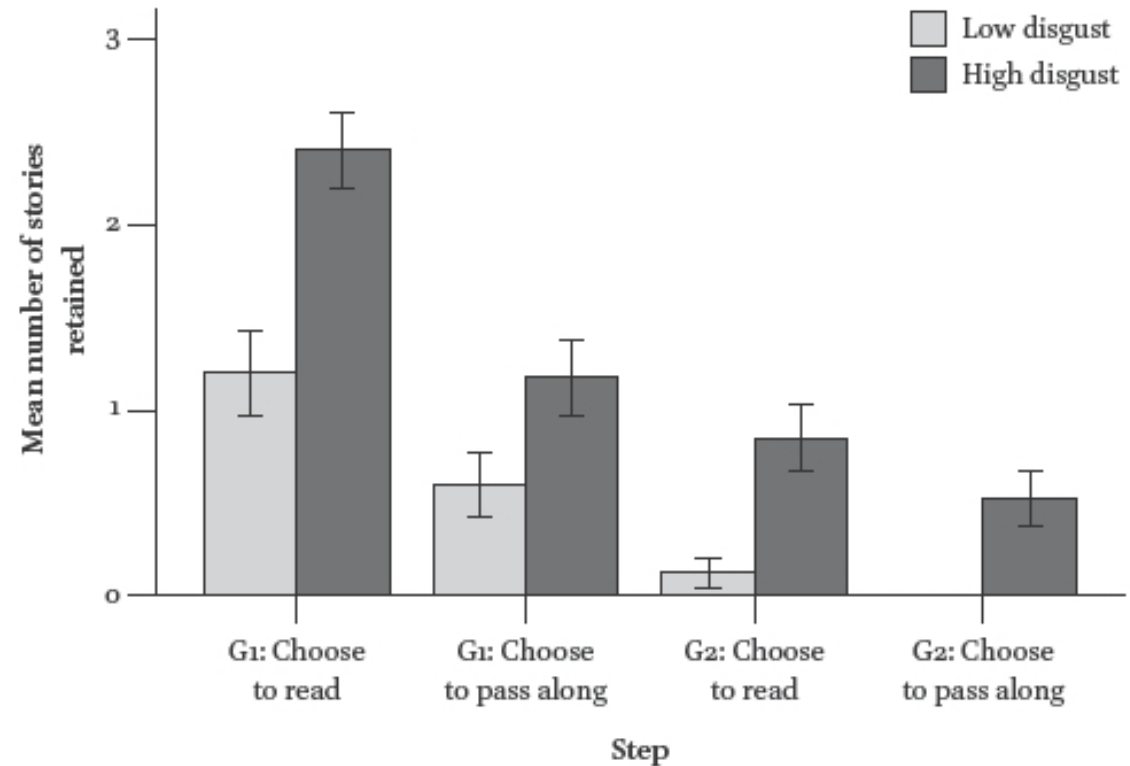
- More disgusting urban legends more faithfully transmitted



Disgust Bias

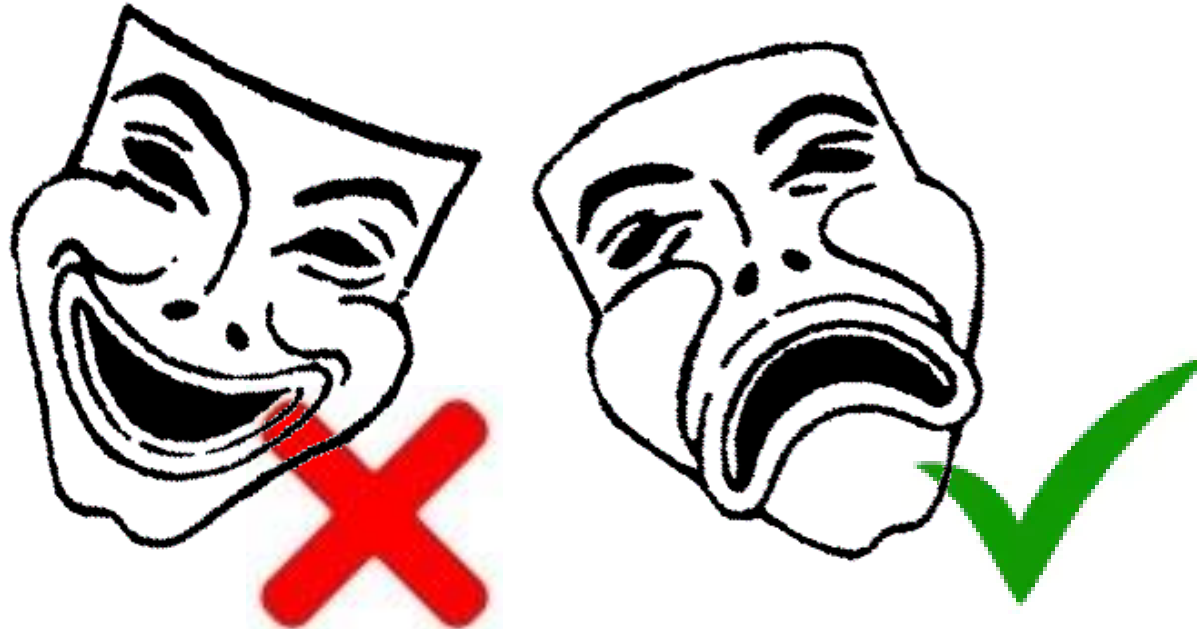
Eriksson & Coultas 2014

- Prefer to read and pass on more disgusting urban legends



Disgust Bias

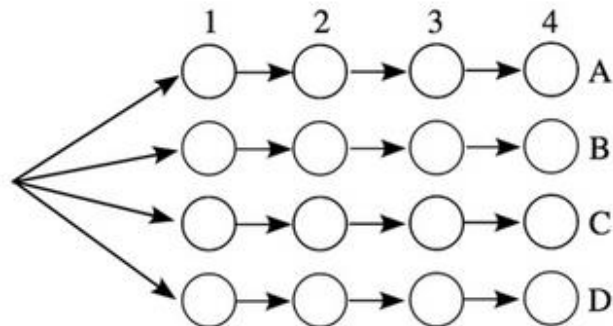
- But disgust is not the only emotion evoked by horror stories
- A general bias for negative emotional content?



Negativity Bias in Transmission

Bebbington et al 2017

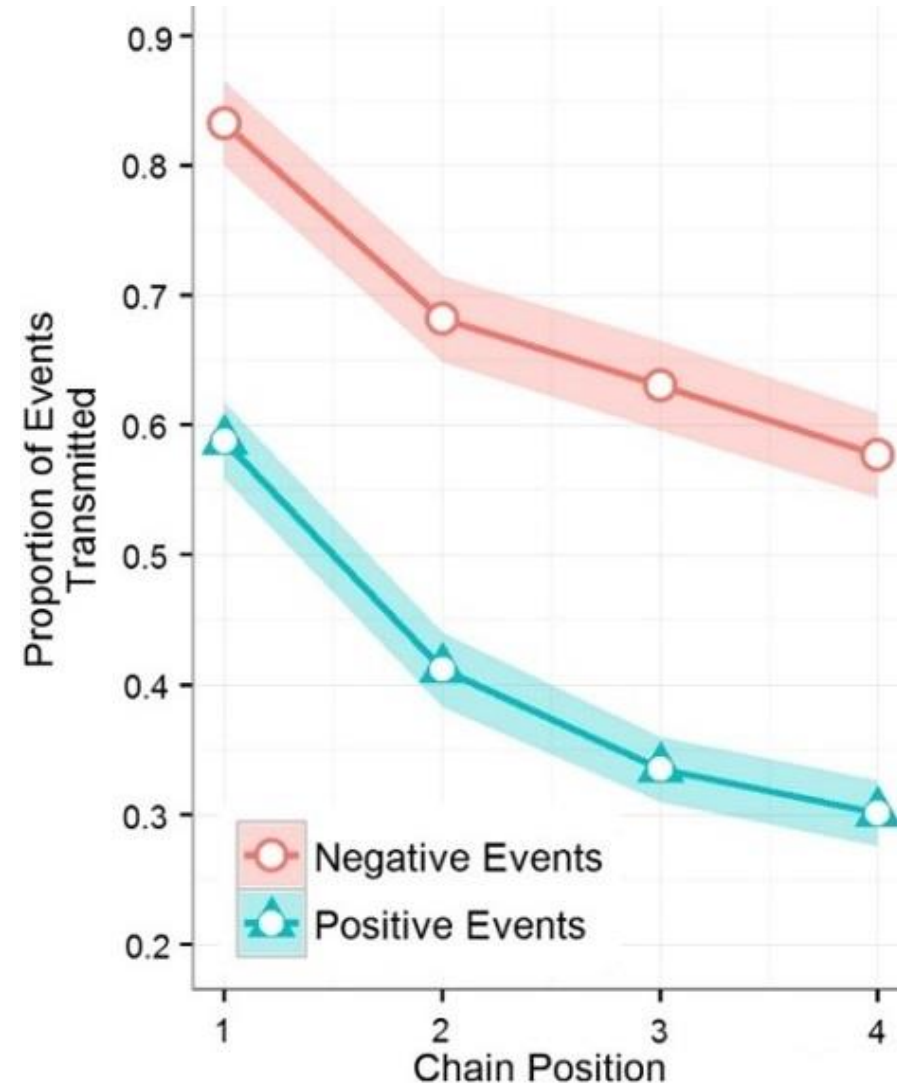
- Transmission chain design
- Story about a woman flying to Australia
- Positive: “When (the air hostess) returned she told Sarah that she would be moved to business class”
- Negative: “The man in the seat next to her seemed to have a nasty cold”
- Ambiguous: “Walking down the concourse, Sarah saw a 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

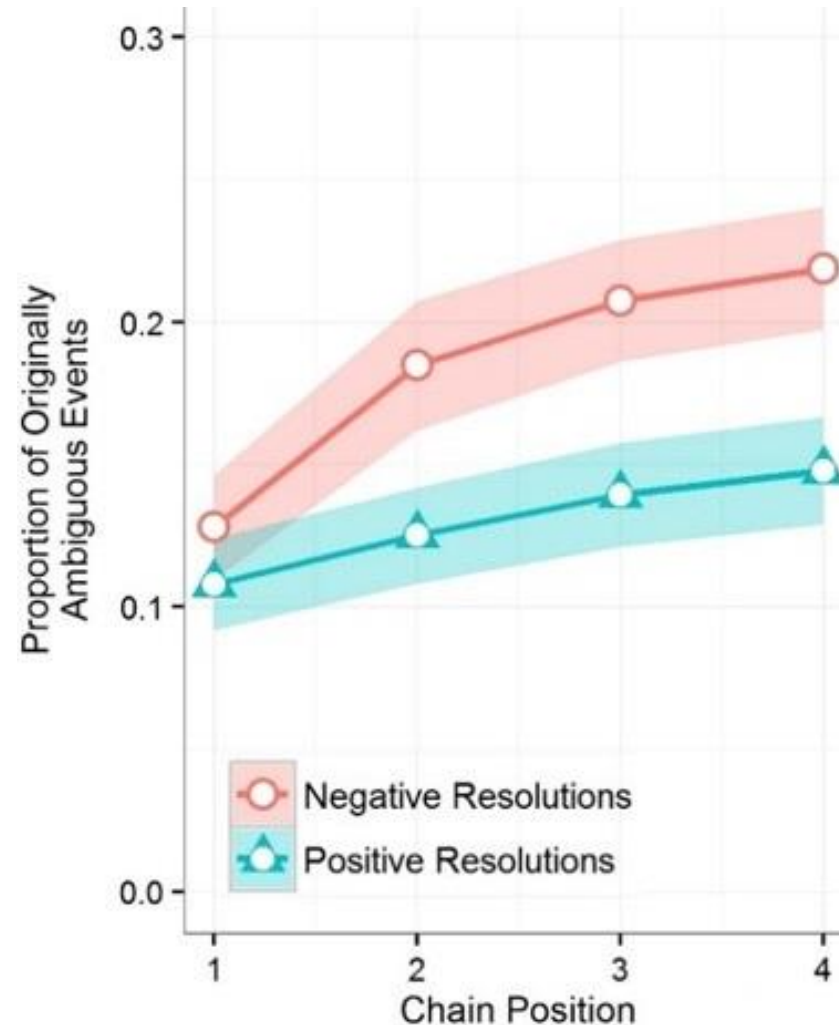
Bebbington et al 2017

- Negative events survived better
- 60% of negative events preserved in final version
- 30% of positive events preserved in final version



Negativity Bias in Transmission

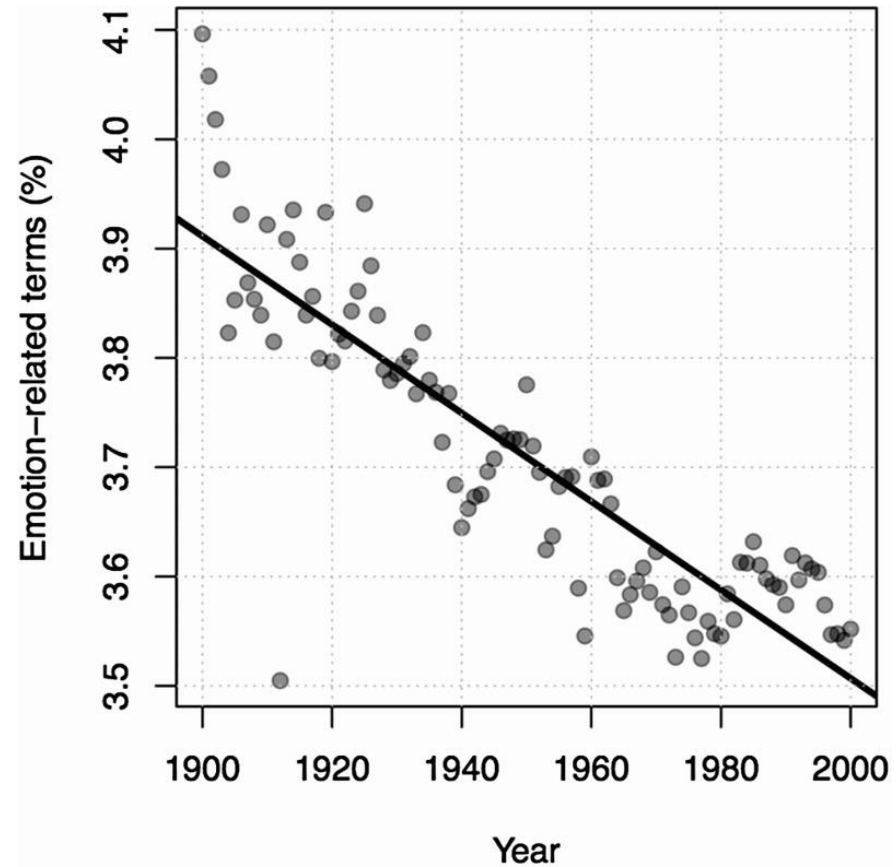
- Resolved ambiguous events mostly became negative



Negativity Bias in Literature

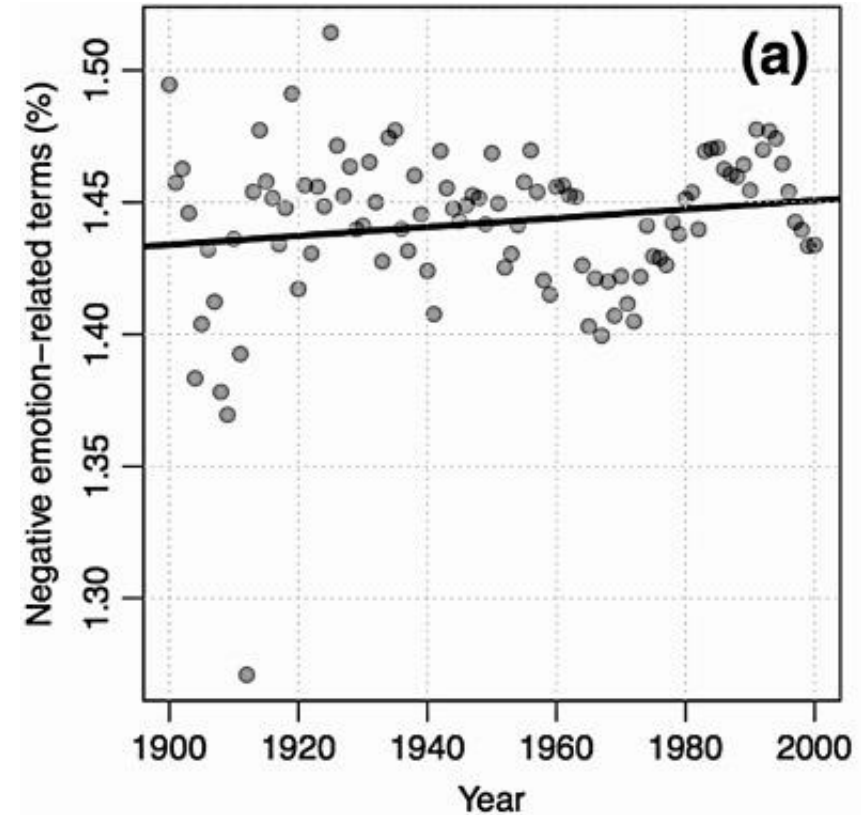
Morin & Acerbi 2017

- 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

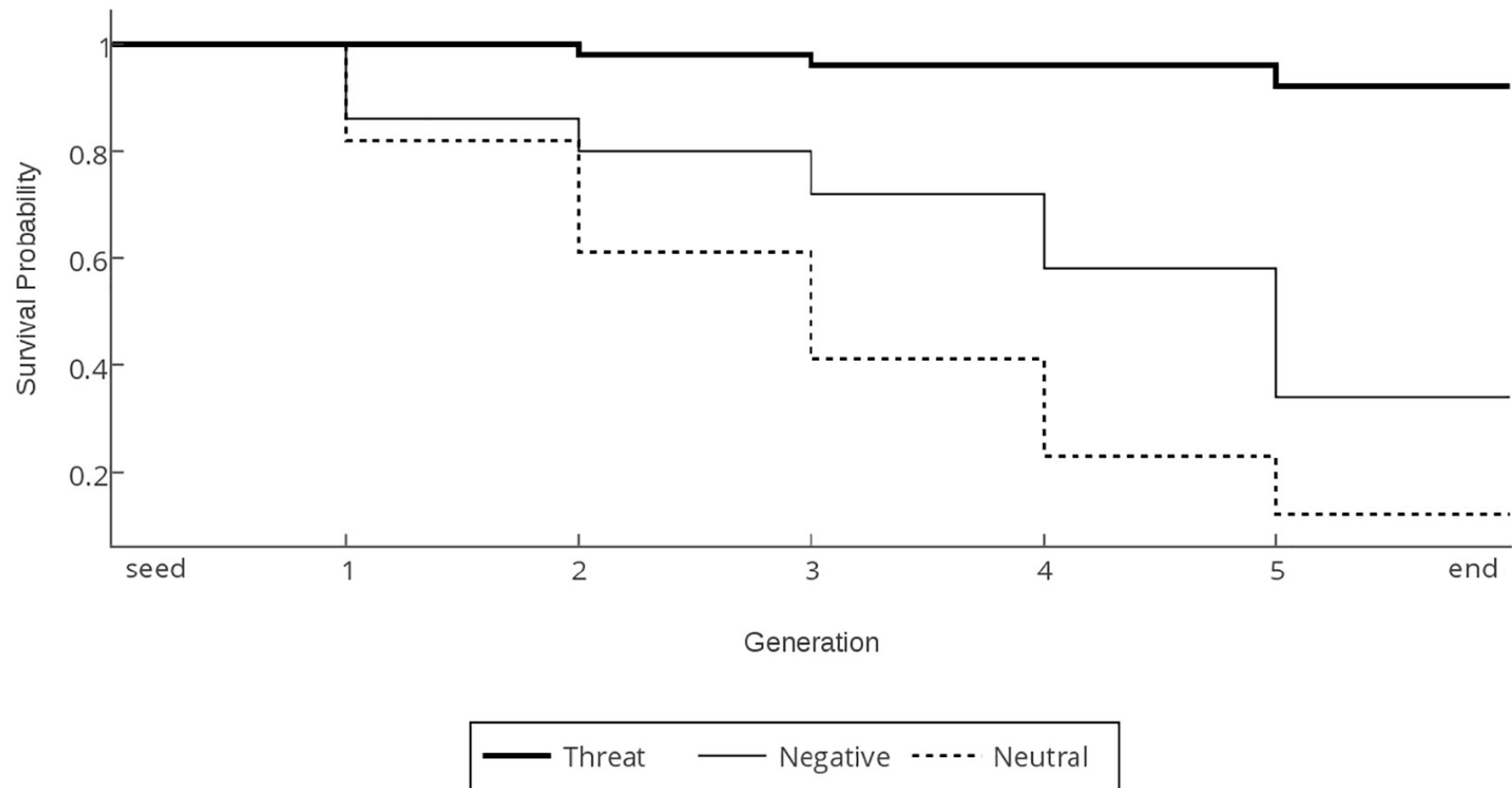
Threat bias

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



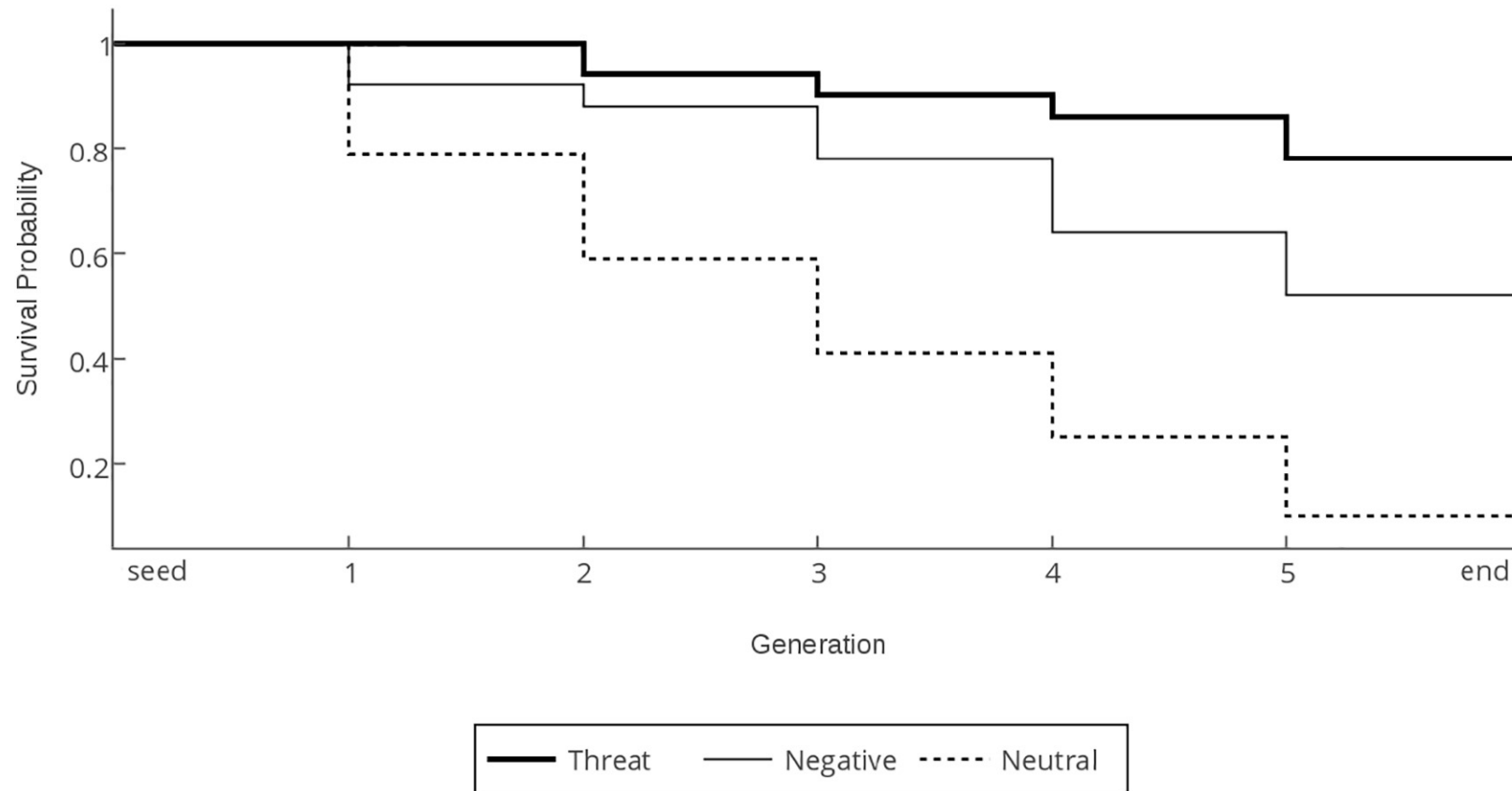
Threat bias

Blaine & Boyer 2018

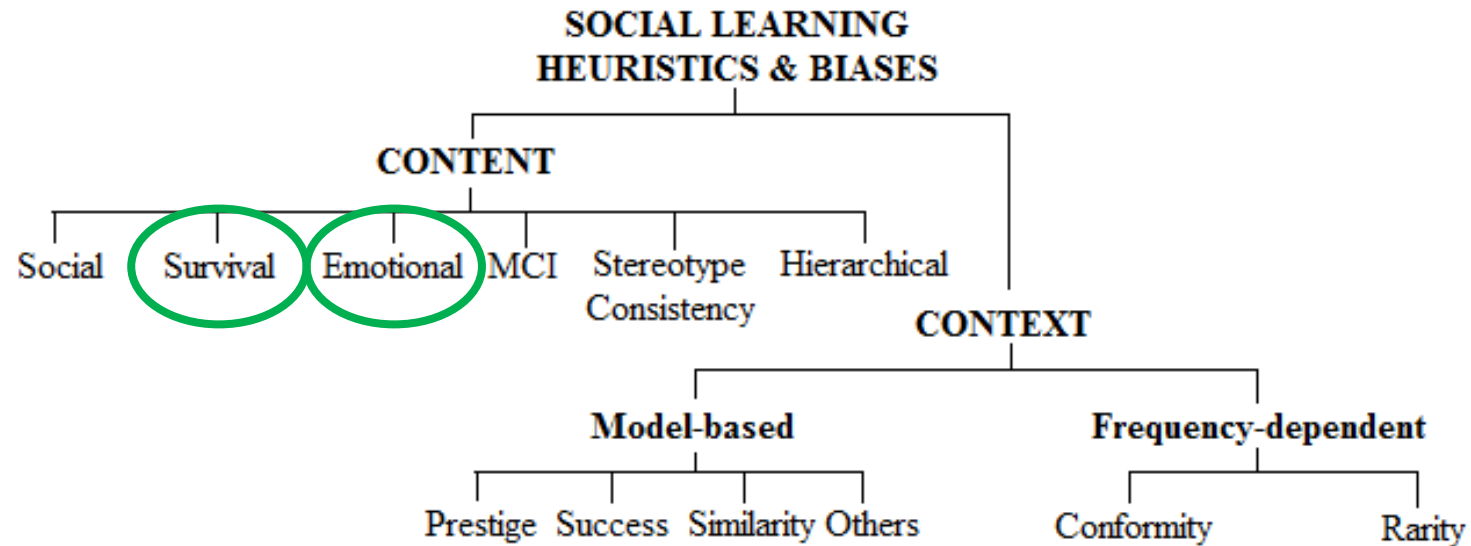
- Less relevant threat?
- Modified original statements to less likely
 - May burn if applied to certain **rare** skin types

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”

