

# A Rhetorical Topoi Analysis of Construction of HPV Vaccine in News Media

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## INTRODUCTION

- **Exigence**
  - Human papillomavirus (HPV) is the most common sexually transmitted infection (STI) in the U.S.
  - HPV vaccines have been surrounded with doubts and controversies on their effectiveness and safety.
- **Previous research**
  - A range of research dealt with the media construction of HPV vaccine from [interpersonal health communication](#), [ethnography](#), [content analysis](#), or [public communication](#).
  - Less work has been done from a [rhetorical perspective](#) which substantially influences people's attitudes towards HPV vaccination.

## RESEARCH QUESTIONS

- **RQ1:** What are the [topoi](#) employed in news reports when constructing HPV vaccine?
- **RQ2:** What [factors](#) contribute to the use of these topoi?
- **RQ3:** What are the [implications](#) for the professional communication of HPV vaccine?

## METHODS

### Theoretical Framework

- Aristotle's 28 topoi

"a method by which we shall be able to reason from generally accepted opinions about any problem set before us"



### Data Selection

- Database: NexisUni → *The New York Times* (47 articles)
- Search term: HPV vaccine
- Time frame: January 1, 2014 - January 1, 2019

### Analytical approach

- Coded text based on the co-occurring linguistic markers
- Counted the frequency of each topos to understand the pattern of topoi use

## RESULTS

### Aristotelian Topoi Used in NYT

- We identified a total of 896 Aristotelian topoi in the NYT corpus. Figure 1 shows the breakdown of the top 10 topoi. The most commonly used topos is degree (168), followed by cause & effect (155), time (145), opposites (134), division (105), compare/contrast (75), etc.

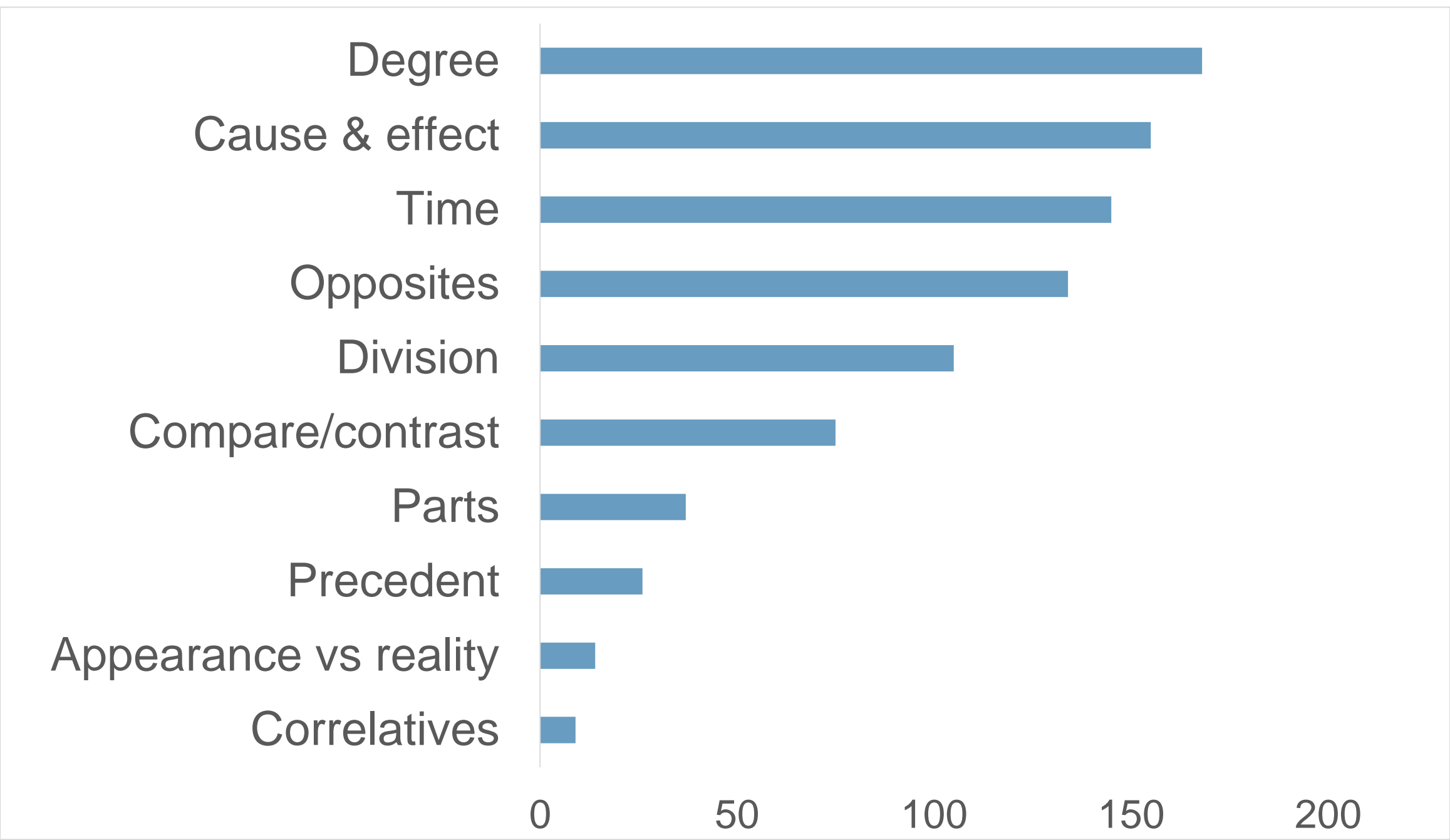


Figure 1. Top 10 topoi used in NYT

Topoi	Illustrative Quotes	Linguistic Markers
Degrees	In the latest report, the rate of teens with two-dose coverage was 6.3 percentage points <i>higher</i> than those with three doses.	More/most, higher, lower, better/best
Cause & effect	Another protects against human papillomavirus (HPV), which <i>causes</i> cancers of the cervix, anus, genitals and middle of the throat.	Because, cause, thus, therefore, so, since
Time	<i>Before</i> being licensed in 2009, the vaccine called Cervarix, which protects against the two variants of HPV [...].	Before, after, ago, next, finally, at the time of
Opposites	Most of the anti-vaccine tweets repeated well-known <i>but</i> long-discredited rumors, [...].	But, otherwise, however
Division	The new report also found that HPV vaccination coverage was 15 <i>percentage</i> points lower in rural areas than in cities.	Percentage, difference

Figure 2. Illustrative quotes of top 5 topoi

### New Topoi Used in NYT

- We also identified a number of new topoi, drawing from the frameworks proposed by later scholars (Wash, 2010; Zhang & Ding, 2014).

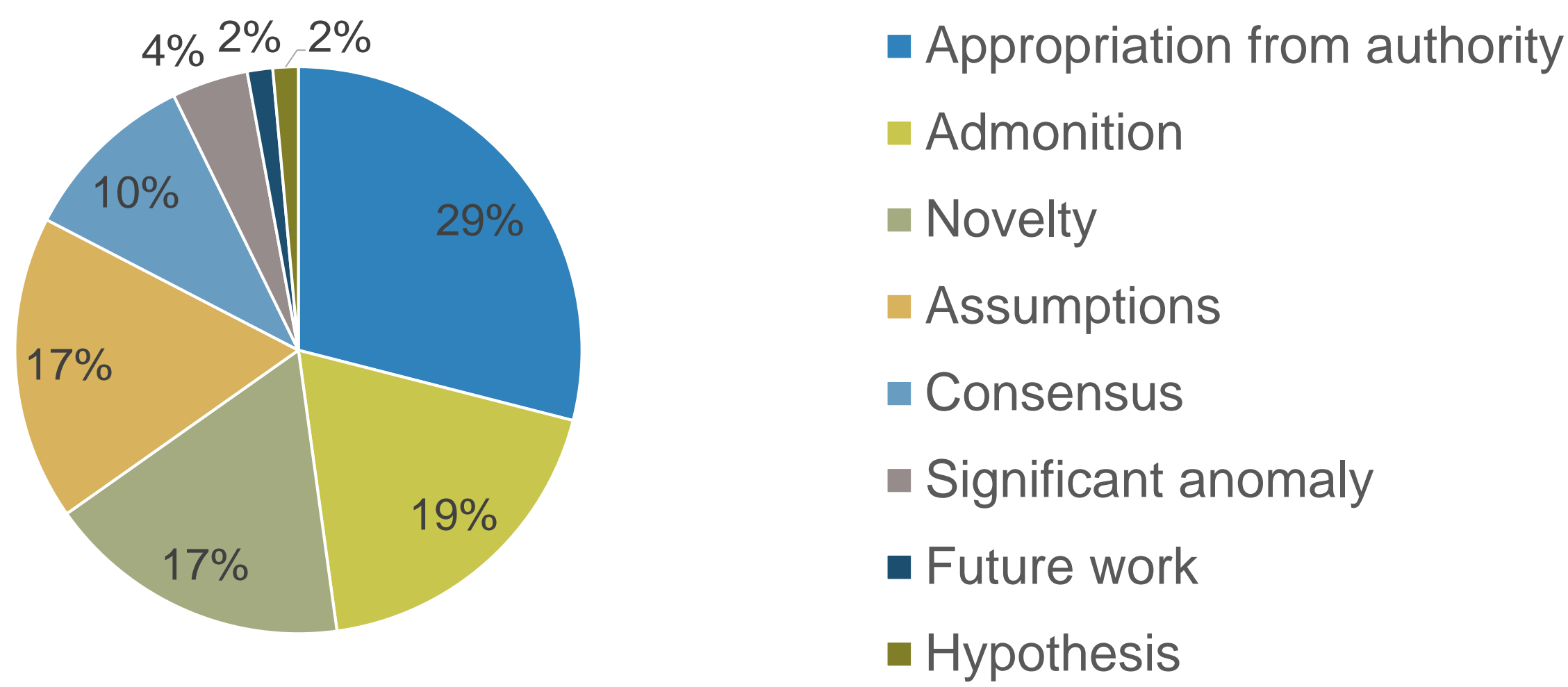


Figure 3. New topoi used in NYT

## DISCUSSION

### Implications

- The results shed light on the effective communication of HPV vaccine. Professional communicators should have the rhetorical awareness and a holistic view of the features and functions of the topoi. The strategic adoption of topoi in writing for the news media would improve the public acceptance of HPV vaccine.

### Limitations

- Limited generalizability due to the small size of the corpus
- Textual analysis only; Ignore the cultural dimensions

### Future directions

- Cross-cultural comparative analysis
- Visual topoi/visual rhetoric
- Analyze digital media content or user-generated content such as the misinformation of HPV vaccine on social media

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