# **TripAdvisor vs. Yelp: How Prior Attribute Rating Influences Overall Evaluation**



## **Research Motivation / Abstract**

- User-generated online reviews and ratings are an important input into online and offline purchase decisions
- Ratings are susceptible to cognitive biases
- RQ: What are the effects of prior attribute ratings on overall ratings?

# Background

#### **Online Reviews**

- Textual comments and numerical (star) ratings
- Considered more credible than marketing information
- Low ratings: potential of hurting future business
- Positively biased ratings  $\rightarrow$  suboptimal purchase decisions

#### Anchoring

#### Definition:

Tendency of individuals to make judgments or estimates close to an anchor even though the anchor is not or only partly informative.

Theories:

- Anchoring-and-Adjustment Heuristic (e.g., Epley & Gilowich, 2001)
  - $\rightarrow$  Starting with the anchor individuals insufficiently adjust  $\rightarrow$  Evidence primarily for self-generated anchors
- Selective Accessibility Model (e.g., Mussweiler & Strack, 1999)  $\rightarrow$  Anchor-consistent information is assumed to be more accessible

 $\rightarrow$  Evidence primarily for externally provided anchors

#### *Hypotheses:*

H1: Prior ratings of attributes work as anchors and bias overall ratings.

H2: Rating decision times are substantially reduced if attributes were previously rated.

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#### Study 1

- Observational study (50 random restaurants from Chicago)
- Data from TripAdvisor (attribute rating) and Yelp (without attribute rating)
- Group comparison of overall ratings

#### Studies 2 to 4

- Between-group experimental design
- DV: Overall rating of some item
- DV: Decision time (to come up with overall rating)
- Treatment: attribute rating present/absent

#### **Study 2: University Rating**

• Field Experiment with 143 students form the University of Liechtenstein (mean age 24.1 years, 63.7 % women)

#### **Study 3: Restaurant Rating**

• Online Experiment with 508 participants via Prolific.ac (mean age 33.3 years, 48 % women)

#### Study 4: Movie Rating (to be analyzed)

• Online Experiment with 200 participants via Prolific.ac (mean age 33 years, 51 % women)

Treatment Condition	Baseline Condition
Please provide a detailed rating of your visit to TASTY RESTAURANT:	
Service $\star \star \star \star \star \star \star \star \star \star$	
Food $\star \star \star \star \star \star \star \star \star \star \star$	
Value $\star \star \star \star \star \star \star \star \star \star$	
Atmosphere $\star \star \star$	
Now, please provide your overall rating of TASTY RESTAURANT:	Now, please provide your overall rating of TASTY RESTAURANT:
Your restaurant rating $+ + + + + + + + + + + + + + + + + + +$	Your restaurant rating $\star \star \star$

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References available on request

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# **Preliminary Results**

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Outcome	Mean diff.	95% HDI
Rating	1.11	[0.74, 1.49]
Rating	0.80	[0.17, 1.41]
Rating	0.25	[0.01, 0.52]
Rating time	-2.10	[-3.71, -0.55]
Rating time	-2.05	[-2.48, -1.58]
	Rating Rating Rating Rating time	Rating1.11Rating0.80Rating0.25Rating time-2.10

		Effect	
Study	Outcome	size	95% HDI
1) TripAdvisor vs. Yelp	Rating	1.34	[0.92, 1.88]
2) University	Rating	0.45	[0.10, 0.78]
3) Restaurant	Rating	0.19	[0.001, 0.36]
2) University	Rating time	-0.58	[-1.06, -0.16]
3) Restaurant	Rating time	-1.06	[-1.34, -0.81]

## Discussion

• Overall ratings are influenced by prior attribute ratings

- Mean ratings
- Decision time
- Prior ratings serve as anchors

 How to balance response burden and quest for "true" rating score?

## References