

Behind the Cyber Curtain: Discrimination within Airbnb's Open-Rating System

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Agenda

- Ideas for Feedback
- Previous Research on Airbnb
 - Research Questions
- Theoretical Framing
- Data
- Methods
- Results

Ideas for Feedback

- Possible confounders
- Literature for framing
- Whatever else you think of!

Previous Research on Airbnb

- Inequality of earnings by race/ethnicity (Edelman et al., 2017; Kakar et al., 2016; Wang et al., 2015)
- White names disproportionately selected by hosts (Cui et al., 2016)

Research Questions

- Do hosts with dark skin tones receive lower anonymous ratings than hosts with light skin tones?
- If so, do publicly written reviews provide similar feedback?

Theoretical Framing

Colorism, Color-Blind Racism, and Status Inequalities:

- Colorism – stratification based on skin tone (Hunter, 2007; Monk, 2014)
- Color-blind Racism (Bonilla-Silva, 2006)
 - Abstract Liberalism
 - Minimization of Racism
- Status inequalities – inequalities driven by differences in esteem and respect (Ridgeway, 2014)

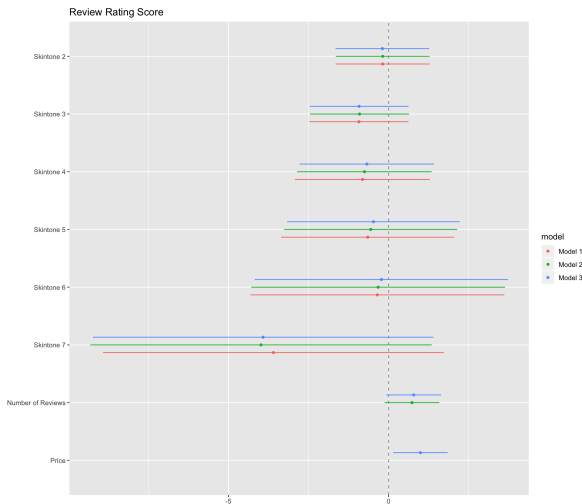
- All information from 28 cities scraped during January 2020
- Includes:
 - Anonymous, quantitative ratings and public, qualitative reviews
 - Rental information (cost, zip code, type of housing, size of space, description, availability, and more)
- Photo of host, from which we derive skin tone

- Machine-learning
- Natural Language Processing
- Both analyses use Linear Regression
- Model one outcome: Anonymous Rating
- Model two outcome: Predicted Review Score - Anonymous Rating

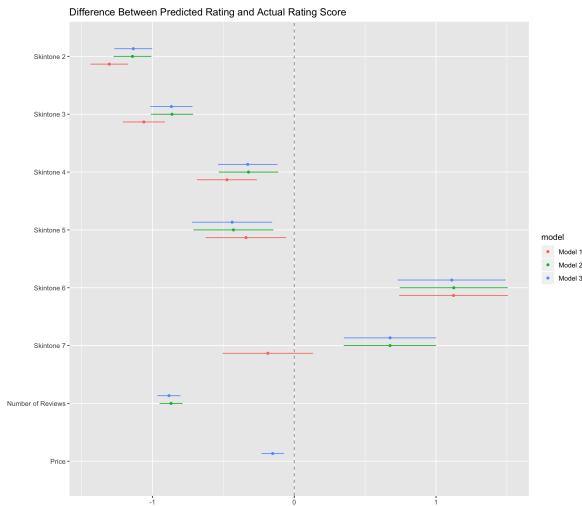
Table: Descriptives by Skin Tone (Averages)

	N	Review Score	Rating	Price	Number of Reviews	Difference
Skintone 1	733	97.89	95.32	144.66	107.4	2.57
Skintone 2	298	97.86	96.6	154.9	163.65	1.26
Skintone 3	184	97.8	96.29	118.08	175.68	1.51
Skintone 4	82	97.73	95.64	118.69	159.66	2.09
Skintone 5	43	97.98	95.55	120.08	76.93	2.23
Skintone 6	17	97.66	93.97	96.23	107.79	3.69
Skintone 7	9	97.48	95.1	98.23	403.25	2.38

Model one: Predict Anonymous Ratings by Skin Tone



Model two: Predict difference of Anonymous Ratings from Public Reviews by Skin Tone



- Hosts with the darkest skin tone receive lower ratings, on average
 - This finding is similar to other papers using skin tone as a predictor (King and Johnson, 2016)
- These lower assessments are not reflected in public, written reviews

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Thank you for your feedback!