# Valuing dissimilarity: The role of diversity on preference predictions





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67

N = 118

N = 99

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### Abstract

How do people integrate others' opinions when predicting their own tastes? Previous research suggests decision-makers generally prefer to seek and accept advice from similar others. We explored whether and when people value preference diversity among advisors. Participants predicted how much they would enjoy unfamiliar stimuli (e.g., movies) based on the ratings of similar and dissimilar reviewer pairs. When self-relevant similarity information was available, people were largely insensitive to diversity. But, when more general preferences and inferences are at play, such as predictions about something's objective quality, they often gave more positive weight to opinions from dissimilar (vs. similar) reviewers.

### Similarity Diversity EX. "I take my cue from how similar EX. "The fact that both individuals gave the movie a strong rating, as well as two people who have both people's tastes are to mine. I am similar AND different tastes from mine, affirms to me fairly picky and so if people like similar things it's a pretty reliable that the movie is probably well liked by all and that I cue to take." am likely going to enjoy it." 28% **58%** N = 160<

Given congruent positive opinions from diverse advisors, more people used dissimilarity as a positive cue for predicting their own preferences—at least, when asked to



Figure 3. Predicted liking for target movie by interreviewer diversity and **CNFU.** Participants predicted their liking for a movie recommended by either a similar OR dissimilar pair, then completed the Consumer Need for Uniqueness (CNFU-S) scale. Median splits shown for ease of interpretation.

N = 140

### **Similarity & Diversity**

• People turn to similar others for lots of reasons, including social comparison [1], advice taking [8], and sticking to a "birds of a feather" status quo [6].

• When people value dissimilar others is less studied [2, 3].

explicitly reflect on their reasoning process.

### **Study 2a: Movie Predictions**



People with *lower*—but not higher—need for uniqueness predicted they'd like a movie more if it was recommended by a dissimilar (vs. similar) reviewer pair.

### **Study 4: Quality Inferences**

• Comparison of similar vs. dissimilar pairs (no self)

How would most critics rate Û 5.5 the movie? (1-7)



Figure 4. Predicted critical appeal of a movie for 2 reviewer pairs. Participants predicted, within-subjects, how much critics would like a movie when recommended by a similar pair and by a dissimilar pair. (Pair order counterbalanced.)

• The "diversity principle" in category-based induction [4, 5, 7], however, says arguments supported by dissimilar premises are stronger than arguments supported by similar ones.

Argument A	Argument B
Hippos have condyloid canals.	Hippos have condyloid canals.
Rhinos have condyloid canals.	Hamsters have condyloid canals.
Mammals have condyloid canals.	Mammals have condyloid canals.

Similar premises  $\square$  weaker argument Diverse premises  $\square$  stronger argument

Do people care about diversity when predicting their preferences (e.g., "Will I like this movie?")

### **Study 2b: Updating Beliefs**

- Sequential presentation of congruent opinions
- How much would you like the movie after Figure 2. Predicted liking for seeing Rev. A, then Rev. 2? (1-10) target movie in a sequential paradigm. Participants did the same task as 2a, but predicted how much they would like the target movie after seeing each reviewer one at a time. Results shown *p* < .005 for "congruent opinions" --- Similar pair where participants first saw a **—** Dissimilar pair similar reviewer who likes the target movie. Updated prediction **Initial prediction**

When predicting their preferences based on pairs of individuals who shared or didn't share their own tastes,

Figure 5. Choice proportions for relative *movie quality.* In a joint evaluation paradigm, participants compared movies recommended by similar and dissimilar reviewer pairs in terms of their objective quality.

<sup>†</sup>Dropping "neither better" respondents

N=318

matter of taste When people made inferences about more general

features of target stimuli like critical appeal and objective quality, they valued diverse opinions more.

### Conclusions

• People don't tend to value diversity with respect to their own preferences, but do seem to when: • Reflecting on their reasoning about diverse opinions Individual need for uniqueness is lower • Predicting something's general quality and appeal • This raises the question: Are we more likely to respect diversity when we perceive choices within categories as matters of quality (vs. taste)?

as they do when predicting their beliefs (e.g., "Does a sea cucumber have condyloid canals?")

## **Study 1: Open-Ended Reasoning**

If you knew:

Reviewer A, who agrees with you **80%** of the time about movies, rated Movie X a **9** out of 10.

Reviewer B, who agrees with you **20%** of the time about movies, rated Movie X a **9** out of 10.

...how would you reason about your likelihood of enjoying Movie X?

people did not value diversity over similarity. They valued it even less when sampling opinions sequentially.<sup>†</sup>

<sup>†</sup>This pattern held across several replications using different samples (lab, Mturk), stimuli categories (movies, songs), and judgment frames (preference magnitude vs. probability ratings).

### **Study 3: Need for Uniqueness**

• Absent self-relevant similarity information

• Inter-reviewer diversity: overlap in movie tastes



### Reviewers A and B both like Movie X.

### **Select References**

[1] Festinger, L. (1954). A theory of social comparison processes. *Human Relations, 7*, 117-140. [2] Gino, F., Shang, J., & Croson, R. (2009). The impact of information from similar or different advisors on judgment. Organizational Behavior and Human Decision Processes, 108, 287-302. [3] Goethals, G. R. & Nelson, R. E. (1973). Similarity in the influence process: The belief-value distinction. *Journal of* Personality and Social Psychology, 25, 117-122. [4] Heit, E. & Feeney, A. (2005). Relations between premise similarity and inductive strength. *Psychonomic Bulletin & Review*, 12, 340-344. [5] Lopez, A. (1995). The diversity principle in the testing of arguments. *Memory & Cognition, 23,* 374-382. [6] McPherson, M., Smith-Lovin, L., & Cook, J. M. (2001). Birds of a feather: Homophily in social networks. *Annual Review of Sociology,* 415-444. [7] Osherson, D. N., Smith, E. E., Wilkie, O., L opez, A., & Shafir, E. (1990). Category-based induction. Psychological Review, 97, 185-200.

[8] Yaniv, I., Choshen-Hillel, S., & Milyavsky, M. (2011). Receiving advice on matters of taste: Similarity, majority influence, and taste discrimination. Organizational Behavior and Human Decision Processes, 115, 111-120.

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