Anecdotes Experiment 1 - Results summary

Shir Dekel

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- Experiment 1 investigated the effect of alignment on the anecdotal bias effect.
- The anecdotal bias effect is usually seen by the difference in responses to a condition that only involves statistics, and a condition that involves both statistics and an anecdote.
- We were interested in whether this effect was moderated by the similar of the anecdote to the target.

Participants

Two hundred and eighty-seven (199 female) people were recruited from a Psychology undergraduate sample at The University of Sydney. Participants were compensated with course credit. The average age was 20.79 ($SD = 4.93$, $min = 16$, $max = 58$). Participants reported an average of 1.66 ($SD = 3.61$, $min = 0$, $max = 32$) years of work in a business setting, and an average of 0.8 ($SD = 1.57$, $min = 0$, $max = 12$) years of business education. The mean completion time was 22.11 ($SD = 96.95$, $min = 1.67$, $max = 1{,}101.48$) minutes. Table 1 shows the condition allocation.

Results

- We found an interaction between anecdote condition and similarity (only when collapsing across the combined and enhanced conditions).
- Participants allocated more to the statistics only condition than the combined statistics + anecdote condition in the high similarity condition.
    - But not in the low similarity condition.
- See Figure 1.

Table 1

Group allocation to the between-subject variables of anecdote condition and alignment.

anecdote	alignment	n
anecdote	high	41
anecdote	low	41
combined	high	41
combined	low	41
enhanced	high	41
enhanced	low	41
statistics	NA	41
Total	-	287

Limitations

- Anecdotes were all "negative" (meaning that were examples of a project that performed poorly).
  - Unclear if effects will be also seen for positive anecdotes, because previous literature in medical decision-making found effects only for negative anecdotes. This might be because people's baseline is "positive" health.
  - However, this is likely to be different in the business domain, because wealth can be more tangibly increased.
- Unclear how to properly express the interaction statistically.
  - The statistics only condition is not a part of the crossed design, so cannot be

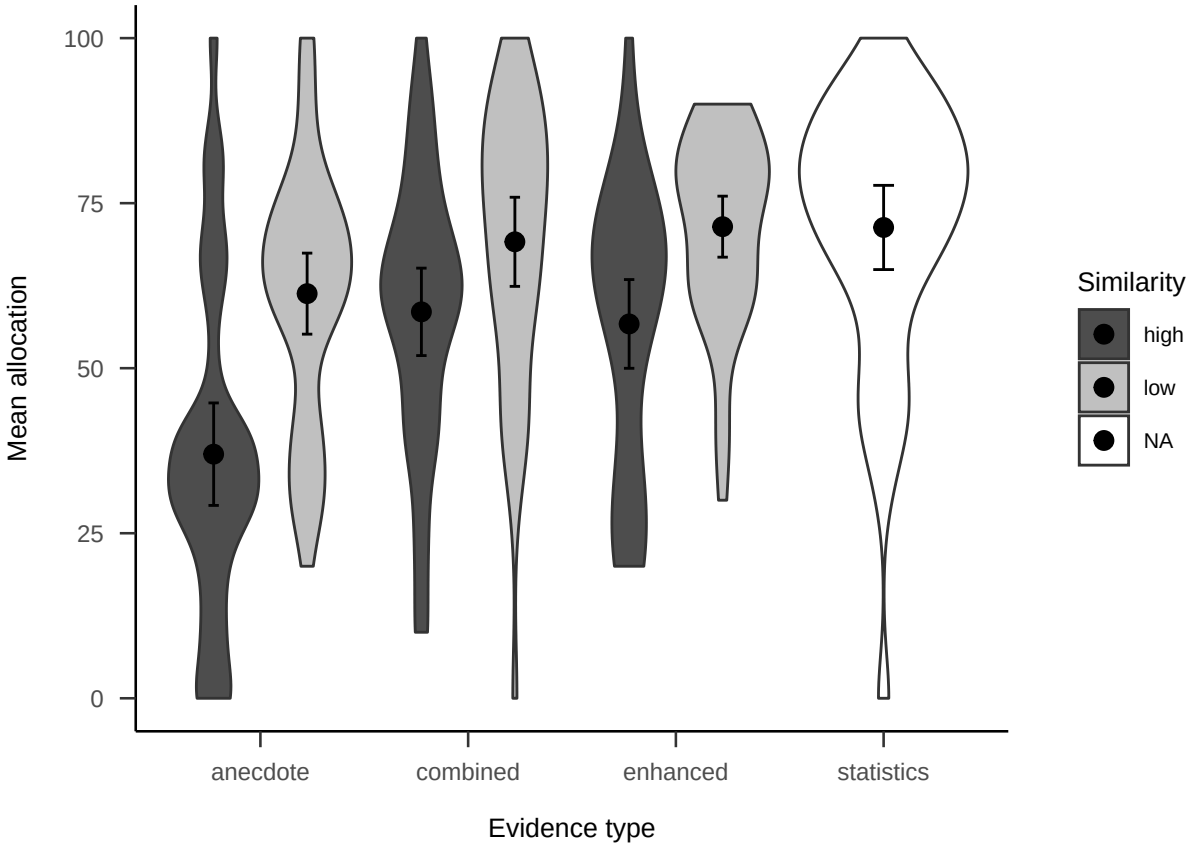

Figure 1

Mean allocation to Project A (the target project). Error bars represent 95% confidence intervals.

tested in a standard ANOVA.

  - A statistics consultant suggested to simply conduct two t-tests (comparing statistics only to combined low similarity, and combined low similarity to combined high similarity), which should imply the interaction. But unclear if this will satisfy a reviewer.

- Using the anecdote may be normative if participants assume that the anecdote was chosen intentionally due to its similarity.

  - Hayes et al. (2019) found that participants' similarity-based inductions depend on whether they were told that the source information was randomly sampled or chosen intentionally.

References

Hayes, B. K., Navarro, D. J., Stephens, R. G., Ransom, K., & Dilevski, N. (2019). The diversity effect in inductive reasoning depends on sampling assumptions. *Psychonomic Bulletin & Review*, *26*(3), 1043–1050. https://doi.org/10.3758/s13423-018-1562-2