Research Blog
Measuring the Extreme Beliefs of Others
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Introduction

People need to have the ability to gage the social attitudes and behaviours of others as the "accurate representation of the distribution of social attitudes and behaviours can guide effective social behaviour and is often essential for correct inferences" when in group settings (Nisbett and Kunda). This is vital, as people want to adhere to the social norms of others in unfamiliar settings as to not offend others with conflicting beliefs at the risk of becoming socially ostracized. However, "despite the importance of people's perceptions of social distributions, there are very few studies that have examined the degree of peoples accuracy in perceiving the central tendency, dispersion or shape of behavioural distributions" (Nisbett and Kunda). Our research was designed to help fill this gap. We set out to investigate if people can accurately predict the beliefs of others, as well as predict how their own beliefs compare to others. We also set out to investigate if people modulate their perceptions of others based on the size of groups they are in.

Method

190 participants were asked to answer 7 sets of questions. Before participants were asked to answer questions in our test, they were told that they were part of a small group (ten people) or a large group (one hundred people) when answering the test. The categories of the

questions are as followed: one perceptual question where participants had to predict the number of marbles in a jar, two behavioural questions about exercise and sleep, four attitudinal questions about healthcare spending, social status impact on opportunities, advice, and how conservative a respondent is. Within each question, participants were asked to make a self-assessment. Then they were asked to guess the average of the group, as well as guess what the highest answer would be in the group, as well as the lowest. Once the data was collected, different methods were used to analyze it. This includes descriptive statistics to visualise the means and standard deviations, linear regressions to analyze correlation of data, as well as t-Test to compare the significance of data.

Findings

Marble Jars

We found that when participants were placed into large and small groups, they modulated their answers differently depending on the group size. Participants when asked to guess the highest answer in the group and were placed in the large groups would guess about twenty points higher than participants in the small group when answering the same question. This is statistically highly significant and is corroborated by the P-Values of the test being under the 0.05 threshold. However, when both the large and small groups were asked to estimate the lowest answer of the group, there was no statistically significant difference. This means that both groups did not modulate their answers when predicting the low estimate.

Exercise

A similar trend presented itself in the exercise question data. Participants once again modulated their answers differently depending on group size. The larger groups estimated on average five points more than the smaller group when guessing high estimates. As with the findings above, the P-Values of the test were under the 0.05 threshold. When we talk about

lower estimates, the small and large groups did not adjust their answers based on group size, creating no statistically significant difference between them.

Sleep

Data on sleep has presented a different trend than the other categories of questions. Both the large and small groups when asked to estimate the highest and lowest answers did not adjust answers based on group size. Instead, the estimates for both groups were only a couple of decimal points away from another, implying no statistically significant difference.

Conclusion

Further investigation is needed to validate the findings of our research. We have seen that there is a trend when participants are placed into larger groups, they tend to adjust their answers. However, we cannot be certain of the results until other tests are run on the remaining attitudinal questions. This includes using the same methodology as previously described to run analyses on the data for attitudinal questions to see if the same trends carry over from the perceptual sets of questions, as well as the behavioural. Also, room for improvement in future design of running the study again. You never know what data you want to collect until you have the data that you collected. Future tests should include questions to see if respondents think they are most extreme, as well as increase the number of perceptual questions we have.

Work Cited

Nisbett, R. E., and Z. Kunda. "Perception of Social Distributions." *Journal of Personality and Social Psychology*, vol. 48, no. 2, 1 Feb. 1985, pp. 297–311, pubmed.ncbi.nlm.nih.gov/3981397/, 10.1037//0022-3514.48.2.297. Accessed 15 Aug. 2022.