

Introduction

In this report, we examine a dataset of survey responses about moral quandaries, focusing on the impact of gender on judgment. The survey includes numerous real-life scenarios in which participants are questioned if their behaviors make them "a jerk" or not. The purpose of this investigation is to see if gender influences how people respond to certain dilemmas. The analysis seeks to address the following question: Does gender influence other people's moral judgments, and if yes, which specific questions are influenced by gender?

We performed a series of hypothesis tests, visualizations, and statistical analyses to explore gender differences in responses to moral scenarios. One of the key findings is that gender does affect responses to several scenarios, though not consistently across all cases. Some scenarios were polarizing, with significant differences in how male and female participants judged the situations, while others exhibited no notable differences. This report presents the findings from these analyses and discusses their implications in a broader context.

Background

The dataset used for this analysis is made up of replies to a series of moral dilemma scenarios, with a special emphasis on participants' self-evaluations of their acts. Gender, age, political affiliation, and religiousness are among the demographic questions included in the survey. These characteristics present an opportunity to explore whether they influence moral judgments and whether they interact with gender in influencing these judgments.

Data Cleaning Process

Before diving into the analysis, several data cleaning steps were necessary:

1. **Merging Datasets:** The dataset was made up of replies from various CSV files. These were coupled with `pd.concat()` to ensure that all responses were considered in the final analysis.
2. **Removing Duplicates:** Any duplicate responses were identified and removed to ensure the dataset's integrity.
3. **Handling Missing Values:** Missing values in critical fields (e.g., age, year in school, and gender) were handled by replacing them with default values:
 - a. The median age was used to replace missing age values.

- b. "Unknown" was used for missing categorical data such as year in school, gender, and political affiliation.
4. Standardizing Responses: The survey responses, particularly those relating to the moral scenarios (e.g., "Not a jerk", "Mildly a jerk", "Strongly a jerk"), were standardized to ensure uniformity across responses.
5. Column Name Cleaning: Some column names had non-alphanumeric characters and spaces, so these were cleaned using the `str.replace()` method to remove special characters, ensuring that the column names were consistent and easy to reference.

Findings

Gender and Moral Judgment: Hypothesis Testing

One of the primary goals of this analysis was to evaluate whether gender influences moral judgment. We expected that male and female participants would react differently to particular scenarios, as gender is frequently considered a crucial component in ethical decision-making.

Chi-Square Test for Independence:

The Chi-Square test for independence was conducted between gender and each of the moral judgment scenarios. For each scenario, the null hypothesis (H_0) stated that there is no association between gender and the judgment of the situation, while the alternative hypothesis (H_1) posited that gender does affect judgment.

The results showed:

- a. **Significant Results:** For certain scenarios, such as those involving family dynamics or financial fairness, there were statistically significant differences in how men and women responded ($p\text{-value} < 0.05$). This suggests that gender influences judgments in these types of moral dilemmas.
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Visualizations

Creating visual representations of the relationship between gender and responses was an important aspect of the investigation. Using stacked bar charts, we were able to show how responses varied by gender for each situation. These visualizations revealed how various genders perceived the identical scenario.

For example:

- In scenarios related to **financial fairness**, there was a noticeable difference in how men and women responded. Women were more likely to rate the situation as "Mildly a jerk," whereas men tended to rate it as "Not a jerk."
- In **family dynamics** scenarios, however, the responses between genders were more evenly distributed, suggesting that these situations were perceived similarly by both men and women.

The visualizations not only showed the importance of gender in specific instances but also assisted in identifying polarizing judgments, where responses were more divided across categories.

Further Grouping by Demographic Factors

In addition to gender, we explored whether other demographic factors, such as age and year in school, influenced moral judgments.

- **Age:** Younger participants (especially those in their early 20s) tended to rate scenarios as "Not a jerk" more often than older participants. This suggests that age may influence how lenient or critical a person is in assessing others' actions.
- **Year in School:** Seniors and upperclassmen displayed more confidence in their judgments, with a trend toward rating situations as "Mildly a jerk" compared to freshmen and sophomores, who were more likely to rate them as "Not a jerk."

Conclusion

The survey data analysis found that gender influences moral judgments in some cases but not universally across all questions. This finding is consistent with earlier research that finds demographic characteristics, such as gender, can influence ethical decision-making in specific settings. However, the findings show that other factors, such as the nature of the moral dilemma, might overshadow gender differences, as indicated by cases in which no significant gender-based differences were discovered.

In addition to the hypothesis testing, the visualizations provided a clear representation of how gender affects responses across various moral scenarios. The stacked bar charts helped to identify scenarios with polarized responses, providing a deeper understanding of how different genders interpret and react to moral situations.

This report highlights the importance of considering demographic factors when analyzing moral and ethical decision-making. Future research could expand on these findings by incorporating

additional variables, such as political affiliation or cultural background, to further explore the complexities of moral judgment across different groups.

The findings from this study can inform discussions on gender and ethics, particularly in contexts where decision-making impacts others, such as in leadership roles, legal judgments, and social justice.

The visualizations, the hypothesis test, and all the analysis are in the colab notebook, which is in a separate document.