

Individual Over Group: A Scenario-Based Experiment on Gender Attribution of Misaction in China

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Abstract. The attribution process lies at the core of social cognition, determining how the public interprets and responds to others' behaviors. Its influence extends from everyday social interactions to policy formation and other broader domains. This study aims to explore whether gender-differentiated attribution tendencies exist among the public when evaluating the misbehavior of males and females within the Chinese social and cultural context. Specifically, the research examined whether errors were more often attributed to individual factors or to gender groups, and how demographic characteristics (age, gender, education level, and city tier) influenced these patterns. A total of 53 Chinese participants were recruited and asked to complete a behavior attribution questionnaire comprising five everyday scenarios. Participants were instructed to decide whether to attribute the same mistakes made by male and female characters to individual factors or to group factors. The results revealed a strong and consistent tendency to attribute errors to individuals rather than groups (mean = 0.08, standard deviation = 0.14) across all scenarios. No significant differences in attribution were found based on gender or demographic variables, contrary to the initial hypothesis. These findings suggest that gender-based attribution biases in society are diminishing, possibly reflecting the positive impact of gender equality education in China. Future research will focus on exploring implicit biases, as such biases may still persist beneath the surface

Keywords: Gender Stereotypes, Gender Attribution, Individual Attribution, China

1. Introduction

1.1. Research background

Social cognition and attribution theory have long examined how individuals interpret others' behaviors, particularly misactions. Gender stereotypes often shape people's evaluations of male and female behaviors. However, with the growing awareness of gender equality in recent years, traditional attribution patterns may have shifted. This study aims to investigate whether the public continues to exhibit gender-differentiated attribution tendencies when responding to the misdeeds of males and females in various situations.

1.2. Literature review

Previous studies indicate that people tend to attribute mistakes to individual rather than group factors [1]. However, gender stereotypes significantly influence this process, often leading observers to explain misactions based on gender-based assumptions about ability or behavior [1, 2]. From a theoretical perspective, attribution theory provides a foundation for understanding how individuals interpret behaviors. Heider [3] distinguished between internal attributions (e.g., personality) and external attributions (e.g., environmental factors), which provides the theoretical basis for distinguishing individual attributions from group attributions in the study.

Empirical research in Western has demonstrated the existence of the “fundamental attribution error,” where individuals tend to attribute individuals’ behaviors to internal rather than external factors. However, when gender is mentioned, the stereotypes significantly interfere with the decision [1, 2]. In Eastern countries, especially in China, the empirical studies conducted on the attribution of male and female misbehaviors remain scarce compared to those in the West. This gap provides an innovative breakthrough point for this research.

Gender stereotypes may bias the attributions by leading individuals to overgeneralize the mistake to entire groups. A recent study on gender stereotypes in China supports this view by concluding that the public is more likely to attribute male success in mathematics to internal factors, while attributing similar success among females to external or unstable factors [4]. Although traditional gender orientation still exists, the government is actively promoting gender equality. This cultural transformation provides a unique opportunity for the study to examine whether the attribution patterns observed in Western are also applicable in Eastern societies.

The previous study concluded that attribution patterns may also be influenced by demographic factors. Variables such as age, education level, and cultural background can shape an individual’s judgment or value [5,6]. Stewart et al. [6] demonstrated that educational level and city tier can significantly reduce stereotyping. However, this study did not find a similar significant effect. Such difference might be due to the variation in sample composition or cultural background (the proportion of underage participants in this study was higher).

The research explores three main research questions: whether attributions are primarily individual- or group-based; how gender stereotypes influence attribution patterns; and how demographic factors such as age, gender, education level, and city tier shape public attribution. Most existing studies that have been conducted in Western societies rarely examine the interactive effects of gender and multiple demographic variables simultaneously. This study seeks to fill that gap by analyzing public attribution patterns within the Chinese cultural background and exploring the combined effects of gender, age, education level, and city tier.

1.3. Findings and hypothesis

H1: Preliminary data indicate that most participants tend to attribute errors to individuals rather than to gender groups, which contradicts the hypothesis of significant gender-based attribution differences.

H2: It is predicted that the public will be more likely to attribute men’s errors to individual factors and women’s errors to group factors, reflecting underlying gender stereotypes.

H3a: Participants will be more inclined to attribute errors committed by individuals of their own gender to individual factors, while attributing errors of the opposite gender more to group factors.

H3b: Older participants will be more likely to attribute errors to group factors compared with younger participants.

H3c: Participants with higher levels of education will tend to attribute errors of both men and women more equally to individual factors, whereas those with lower education levels will be more likely to make group-based attributions.

H3d: Participants living in first- or second-tier cities will be more likely to attribute errors to individual factors rather than to group factors, compared with those residing in lower-tier cities.

1.4. Research significance

This research is significant at both theoretical and practical levels. Theoretically, it tests the applicability of attribution theory and gender stereotype theory within the Chinese cultural context. By incorporating multiple demographic variables, the study deepens the understanding of attribution mechanisms and their social determinants. Practically, the findings provide empirical evidence that can inform the development and improvement of gender equality education and related public awareness initiatives.

2. Method

2.1. Participants

The study employed a convenience sampling method for data collection. The questionnaire was created using the Wenjuanxing platform and distributed via the researcher's WeChat Moments. Data collection was conducted on August 10, 2025, and completed within approximately 12 hours. The final sample consisted of 53 valid responses, including 21 males (39.62%) and 32 females (60.38%). The age distribution was as follows: 28 participants under 18 years old (52.83%), 16 aged 18–25 (30.19%), 5 aged 31–40 (9.43%), 1 aged 41–50 (1.89%), and 3 aged 51–60 (5.66%). Regarding residential location, 39 participants (73.58%) resided in Tier 1 or Tier 2 cities, while the remaining 14 participants (26.42%) were evenly distributed across Tier 3, Tier 4, and below-Tier 4 cities (7 participants each, 13.21%). In terms of educational background, most participants held a high school diploma (28, 52.83%), followed by a bachelor's degree (18, 33.96%).

2.2. Measures

Data were collected using a self-designed Behavioral Attribution Questionnaire, which consisted of two sections. The first section gathered demographic information, including gender, age group, highest education level, and residential area type. The second section contained behavioral attribution scenarios. Five daily scenarios—driving, workplace decisions, household chores, campus behavior, and social media behavior—were presented in the questionnaire.

Each scenario included paired questions assessing participants' attribution tendencies toward identical errors committed by male and female characters. Responses were binary (single choice): one option represented an internal attribution (e.g., “lack of personal ability” or “personality flaw”), and the other represented an external, group-based attribution (e.g., “males/females as a group are less proficient”). To minimize order effects, both the sequence of scenarios and the order of response options were randomized.

The design of the Behavioral Attribution Questionnaire in the study was informed by previous research on attribution and gender stereotypes that measures individuals' gender-related cognition in various aspects of daily life. For example, Moe et al. [7] created a scenario-based scale combining work and family contexts to assess traditional gender role patterns and gender discrimination, which proves the reliability and validity of this questionnaire approach.

2.3. Procedure

After the questionnaire was launched, participants accessed it through a link shared on WeChat Moments. Neutral instructions were provided, stating: “This is a survey on social behavior cognition,” without revealing the specific research objective to avoid biased responses. Participants provided informed consent prior to participation and completed the questionnaire anonymously. All submissions were automatically recorded by the Wenjuanxing platform, with completion times ranging from 33 seconds to 1,738 seconds.

2.4. Data analysis plan

Data were analyzed using the SPSS approach. For each scenario, the individual attribution response from each participant was coded as 1, while a group attribution response was coded as 0. Scores were then added across the five scenarios and divided by the total number of scenarios to produce an overall attribution score, with higher values indicating a stronger tendency toward individual attribution.

Chi-square tests were then conducted to examine whether there were significant differences in attributions for misconduct by gender, showing the scenario’s attribution choices from each participant (individual vs. group). For example, cross-tabulation and chi-square comparisons were conducted between attributions for “male driver accidents” and “female accidents.”

Finally, correlational analyses were conducted to explore relationships between attribution scores and demographic variables (age, education level, and city tier).

3. Results

Q1: Attribution Tendency (Individual vs. Group)

Scores for individual attribution toward female and male targets were calculated separately across the five scenarios. The overall mean attribution score across participants was $M = 0.08$ ($SD = 0.14$), indicating a strong preference for individual attributions (coded as 1) over group attributions (coded as 0). No significant differences were found between attributions for male and female actors across all scenarios (all $*p* > .05$).

Q2: Gender Stereotypes in Attribution

Chi-square tests did not reveal statistically significant differences ($*p* > .05$). However, a slight trend consistent with gender stereotypes was observed, suggesting that female actors received marginally more group-based attributions than male actors.

Q3: Effects of Demographic Variables

Exploratory analyses showed that:

(A) Gender: Male participants ($M = 0.09$, $SD = 0.15$) and female participants ($M = 0.07$, $SD = 0.13$) did not differ significantly in overall attribution scores.

(B) Age: No significant correlation was found between age and the attribution, $*r*(51) = -.08$, $*p* = .562$.

(C) Education: No significant differences were found among participants with different education levels, $F(2, 50) = 0.32$, $*p* = .728$. (D) City tier: Participants from lower-tier cities showed slightly higher group attribution scores, but that difference was not statistically significant ($*p* = .300$).

In all five behavioral scenarios, participants consistently tend to choose individual attributions rather than group-based attributions, which suggests that the public is more likely to explain misbehaviors from the perspective of individual responsibility in terms of gender stereotypes. There

were no significant gender differences detected in the individual attribution pattern across males and females, which refutes H1. Regarding H2, the chi-square test did not show a statistically significant difference, but a weak trend was observed. The group-based evaluations received by females were slightly higher than males, which reflects a tendency consistent with stereotypes. Tests of demographic hypotheses (H3a–H3d) showed no significant effects of gender, age, education level, or city tier on attribution response. These findings suggest that explicit gender-based attribution biases are absent. However, an implicit stereotype-consistent bias may persist because participants from lower-tier cities show a weaker tendency toward group attribution responses.

4. Discussion

The research examined how the public attributed misbehaviors committed by males and females across five daily scenarios (driving, bullying, workplace decision-making, household chores, and social behavior). The results showed participants tended to make individual rather than group attributions. No significant effects of gender or demographic variables were found.

The findings for individual attributions contradict H1, which predicted that there are significant gender-based attribution differences. With the increasing dissemination of gender equality education, the public may consciously avoid gender stereotypes when evaluating others, instead emphasizing on individual responsibility. This result is consistent with recent research suggesting that explicit gender stereotypes are weakening in public discourse due to growing awareness of gender equality [5].

A weak trend consistent with H2 was observed. Participants showed slightly higher group attributions in scenarios involving females, although this difference is not statistically significant. This slight bias corresponds to the findings of Heilman [1], who reported that women are often stereotyped as less competent in certain domains. The explicit gender bias is seen to be diminishing; implicit stereotypes may still persist. This interpretation aligns with theories suggesting that unconscious biases remain even after explicit attitudes toward gender equality have improved [8].

All demographic variables, including gender, age, education level, and city tier, did not significantly influence attribution tendencies. The disappearance of significant gender differences reflects generational changes in China, especially given that younger participants made up the majority of the sample in the study. The diminishing effects of education and city tier contradict previous findings, such as those of Stewart et al. [6] who found that higher education levels and individuals in more developed cities tend to reduce stereotypical thinking. Although participants from lower-tier cities showed a slightly stronger tendency toward group attributions, the independent-sample t-tests confirmed that this difference was not statistically significant. This suggests that regional and cultural factors may have potential influences on attribution response. In future research, this area needs to be explored in greater depth by using larger-scale and more diverse samples.

5. Limitations / future research

The main limitation of this study is the methodology. Participants may have provided answers that conformed with social expectations rather than their real thoughts due to the data were collected through self-report questionnaires. Future research could address this issue by employing implicit experimental methods to measure participants' immediate cognitive responses and uncover potential unconscious biases. The relatively high proportion of teenage participants in the sample may have influenced the generalizability of the findings. As adolescents may hold different attitudes toward

gender equality compared to older adults, future studies should include a more balanced age distribution to ensure the representativeness and generalizability.

6. Conclusion

The research results indicate that the public tends to choose individual attribution over group attribution response, regardless of the gender of the individual being evaluated or the demographic characteristics of the participants. This trend reflects the positive impact of ongoing gender equality education. To fully uncover potential gender biases in attribution, it remains necessary to explore implicit cognitive processes through more sensitive experimental approaches. Overall, this study provides valuable insights into contemporary patterns of social cognition and empirical evidence for promoting gender equality awareness and education.

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