Study of Gender Differences in Expressing Verbal Gratitude

Renee Aka, Candace Barksdale, Adam Hakes
San Diego Mesa College
What is gratitude?

- Gratitude can be defined as a sense of thankfulness and joy in response to receiving a gift, whether the gift be a tangible or a moment of joy. (Froh, Kashdan, Mishra, & Breen, 2009)
Many studies have shown substantial support indicating there is a difference in emotions between male and females and that females are often more emotionally expressive than males (Kring & Gordon, 1998).

Possible reasons:

- Societal expectations.
- Cultures socialize men and women differently.
- Hormonal differences (estrogen/testosterone).
- Men and women acquire different values.
- Gratitude is associated with indebtedness and dependency among some people.
  - (Froh et al., 2009)
  - (Solomon, 1995)
Hypothesis
  ○ Female college students will verbally express more gratitude than male college students towards both genders after receiving a benefit that is perceived as an outcome of good intentions from another person.
Two observational studies (door holding/scantron) were conducted to measure verbal gratitude between male and female students on campus at San Diego Mesa College.

- College students of all ages and ethnicities chosen randomly.
- Four confederates utilized (2 males/2 females).
- Target sample size 100 people (50 female/50 male).
- Location: Math and Sciences building, Humanities building, walkway adjacent to Mesa College tennis courts, and staff parking lot.
**Results**

- $n = 471$ participants
  - 271 participants in door holding
    - 130 males holding a door
    - 141 females holding a door
  - 200 participants in scantron passers
    - 100 scantrons passed out between 2 males
    - 100 scantrons passed out between 2 females
Results

- MaleYes indicates verbal gratitude was expressed. MaleNo indicates verbal gratitude was not expressed.
- FemaleYes indicates verbal gratitude was expressed. FemaleNo indicates verbal gratitude was not expressed.
Results

- **Male holding door open**
  - 27 Male Yes (20.8%)
  - 47 Male No (36.2%)
  - 23 Female Yes (17.7%)
  - 33 Female No (25.4%)

- **Female holding door open**
  - 47 Male Yes (33.3%)
  - 11 Male No (7.8%)
  - 70 Female Yes (49.6%)
  - 13 Female No (9.2%)
Results

• Male scantron passers
  ○ 14 MaleYes (14%)
  ○ 39 MaleNo (39%)
  ○ 30 FemaleYes (30%)
  ○ 17 FemaleNo (17%)

• Female scantron passers
  ○ 30 MalesYes (30%)
  ○ 24 MaleNo (24%)
  ○ 42 FemaleYes (42%)
  ○ 4 FemaleNo (4%)
A chi square test was used to determine if there was a significant difference between verbal gratitude and genders.

- The chi-square statistic for the door holding observation was $x^2 = 59.851$ and $p < .001$. At 0.05 alpha level, the result was statistically significant.

- The chi-square statistic for the scantron passers observation was $x^2 = 19.437$ and $p < .001$. At 0.05 alpha level, the result was statistically significant.
### Results (Door Holder)

#### Door Holder * Gender Crosstabulation

<table>
<thead>
<tr>
<th>Gender</th>
<th>MaleYes</th>
<th>MaleNo</th>
<th>FemaleYes</th>
<th>FemaleNo</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Door Holder</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>27</td>
<td>47</td>
<td>.23</td>
<td>33</td>
<td>130</td>
</tr>
<tr>
<td>% within Door Holder</td>
<td>20.8%</td>
<td>36.2%</td>
<td>17.7%</td>
<td>25.4%</td>
<td>100.0%</td>
</tr>
<tr>
<td>% within Gender</td>
<td>36.5%</td>
<td>81.0%</td>
<td>24.7%</td>
<td>71.7%</td>
<td>48.0%</td>
</tr>
<tr>
<td>% of Total</td>
<td>10.0%</td>
<td>17.3%</td>
<td>8.5%</td>
<td>12.2%</td>
<td>48.0%</td>
</tr>
<tr>
<td>Female</td>
<td>47</td>
<td>11</td>
<td>70</td>
<td>13</td>
<td>141</td>
</tr>
<tr>
<td>% within Door Holder</td>
<td>33.3%</td>
<td>7.8%</td>
<td>49.6%</td>
<td>9.2%</td>
<td>100.0%</td>
</tr>
<tr>
<td>% within Gender</td>
<td>63.5%</td>
<td>19.0%</td>
<td>75.3%</td>
<td>28.3%</td>
<td>52.0%</td>
</tr>
<tr>
<td>% of Total</td>
<td>17.3%</td>
<td>4.1%</td>
<td>25.8%</td>
<td>4.8%</td>
<td>52.0%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>74</td>
<td>58</td>
<td>93</td>
<td>46</td>
<td>271</td>
</tr>
<tr>
<td>% within Door Holder</td>
<td>27.3%</td>
<td>21.4%</td>
<td>34.3%</td>
<td>17.0%</td>
<td>100.0%</td>
</tr>
<tr>
<td>% within Gender</td>
<td>100.0%</td>
<td>100.0%</td>
<td>100.0%</td>
<td>100.0%</td>
<td>100.0%</td>
</tr>
<tr>
<td>% of Total</td>
<td>27.3%</td>
<td>21.4%</td>
<td>34.3%</td>
<td>17.0%</td>
<td>100.0%</td>
</tr>
</tbody>
</table>

#### Chi-Square Tests

<table>
<thead>
<tr>
<th></th>
<th>Value</th>
<th>df</th>
<th>Asymp. Sig. (2-sided)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson Chi-Square</td>
<td>59.851</td>
<td>3</td>
<td>.000</td>
</tr>
<tr>
<td>Likelihood Ratio</td>
<td>62.965</td>
<td>3</td>
<td>.000</td>
</tr>
<tr>
<td>Linear-by-Linear Association</td>
<td>1.001</td>
<td>1</td>
<td>.317</td>
</tr>
</tbody>
</table>

Note: 0 cells (0%) have expected count less than 5. The minimum expected count is 22.07.
Results (Door Holder)
### Results (Door Holder)

#### Scantron Passer & Gender Crosstabulation

<table>
<thead>
<tr>
<th></th>
<th>Gender</th>
<th>MalesYes</th>
<th>MaleNo</th>
<th>FemaleYes</th>
<th>FemaleNo</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Scantron Passer</td>
<td>Male</td>
<td>Count</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>% within Scantron Passer</td>
<td>14</td>
<td>38</td>
<td>30</td>
<td>17</td>
<td>100</td>
</tr>
<tr>
<td></td>
<td>% within Gender</td>
<td>14.0%</td>
<td>39.0%</td>
<td>30.0%</td>
<td>17.0%</td>
<td>100.0%</td>
</tr>
<tr>
<td></td>
<td>% of Total</td>
<td>7.0%</td>
<td>19.5%</td>
<td>15.0%</td>
<td>8.5%</td>
<td>50.0%</td>
</tr>
<tr>
<td>Female</td>
<td>Count</td>
<td>30</td>
<td>24</td>
<td>42</td>
<td>4</td>
<td>100</td>
</tr>
<tr>
<td></td>
<td>% within Scantron Passer</td>
<td>30.0%</td>
<td>24.0%</td>
<td>42.0%</td>
<td>4.0%</td>
<td>100.0%</td>
</tr>
<tr>
<td></td>
<td>% within Gender</td>
<td>68.2%</td>
<td>38.1%</td>
<td>58.3%</td>
<td>19.0%</td>
<td>50.0%</td>
</tr>
<tr>
<td></td>
<td>% of Total</td>
<td>15.0%</td>
<td>12.0%</td>
<td>21.0%</td>
<td>2.0%</td>
<td>50.0%</td>
</tr>
<tr>
<td>Total</td>
<td>Count</td>
<td>44</td>
<td>63</td>
<td>72</td>
<td>21</td>
<td>200</td>
</tr>
<tr>
<td></td>
<td>% within Scantron Passer</td>
<td>22.0%</td>
<td>31.5%</td>
<td>36.0%</td>
<td>10.5%</td>
<td>100.0%</td>
</tr>
<tr>
<td></td>
<td>% within Gender</td>
<td>100.0%</td>
<td>100.0%</td>
<td>100.0%</td>
<td>100.0%</td>
<td>100.0%</td>
</tr>
<tr>
<td></td>
<td>% of Total</td>
<td>22.0%</td>
<td>31.5%</td>
<td>36.0%</td>
<td>10.5%</td>
<td>100.0%</td>
</tr>
</tbody>
</table>

#### Chi-Square Tests

<table>
<thead>
<tr>
<th></th>
<th>Value</th>
<th>df</th>
<th>Asymp. Sig. (2-sided)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson Chi-Square</td>
<td>19.437</td>
<td>3</td>
<td>.000</td>
</tr>
<tr>
<td>Likelihood Ratio</td>
<td>20.231</td>
<td>3</td>
<td>.000</td>
</tr>
<tr>
<td>Linear-by-Linear Association</td>
<td>5.103</td>
<td>1</td>
<td>.024</td>
</tr>
</tbody>
</table>

* 0 cells (0.0%) have expected count less than 5. The minimum expected count is 10.50.
Results (Door Holder)

Graph 1: Bar chart showing the number of participants in relation to gender and scantron pass status. The x-axis represents the scantron pass status (Male, Female), and the y-axis represents the number of participants.

Graph 2: Pie charts showing the distribution of gender and scantron pass status.

- Male Yes: 31.82%
- Male No: 68.18%
- Female Yes: 58.33%
- Female No: 41.67%

All cases weighted by frequency.
Discussion

- Results of the study showed significant support for our hypothesis.
  - Females expressed more verbal gratitude than males to confederates of both genders.
  - Both genders expressed more verbal gratitude towards female confederates than they did to male confederates.

- Possible Limitations:
  - Students' may have preferences in ethnicity and appearance of confederates.
  - Time of day.
  - Location.
  - Social desirability.
Literature References


All images used are Microsoft clipart except the following


