Prosocial and Antisocial Behavior in Teenagers is related to

Gender, Sociometric Status, and Number of Friends

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Abstract

The interaction of gender, number of friends, and sociometric status was studied in relation to social behavior in teenagers. Using a self-report survey, participants were assessed on rudeness and how often they offered to share. It was hypothesized that those with high sociometric status and number of friends will be more likely to share and less likely to be rude than those with lower sociometric status and number of friends and that the effect would be larger for females than males. There was an interaction of gender, number of friends, and sociometric status for both rudeness and sharing. Those of lower sociometric status were rude more often than those of high sociometric status for those with high numbers of friends. Those of high sociometric status offered to share more than those with low sociometric status for those with high numbers of friends. There was no difference for those with low numbers of friends for either rudeness or sharing. These results support previous findings that those of high sociometric status engage in more prosocial behavior while those of low sociometric status engage in more antisocial behavior. The results also support findings that those with high numbers of friends are more prosocial than those with low numbers of friends. In support of other studies, this study found that females engage in more sharing than males. However contrary to other studies, this study found that females report more verbal rudeness than males.
Prosocial and Antisocial Behavior in Teenagers is related to Gender, Sociometric Status, and Number of Friends

Increased prosocial behavior in adolescence has been associated with many positive outcomes including better academic achievement and decreased aggressive behaviors (Caprara et. al, 2014). Prosocial behavior includes altruism, empathy, and sympathy (Eisenberg-Berg, Haake & Bartlett, 1981). One such display of prosocial behavior is sharing. In preschool, spontaneous sharing was correlated with prosocial behavior later in life (Eisenberg & Fabes, 1998). Sharing becomes especially important later in life, as a focus group of adolescents listed sharing as one of the top three prosocial qualities (Bergin, Talley & Hamer, 2003). Prosocial qualities such as sharing are important to building and maintaining social support. However, antisocial behavior, such as bullying, has been associated with decreased social support and depression (Ritakallio et. al, 2010). Bullying is more often verbal than physical (Craig, Pepler, & Atlas, 2000). Verbal bullying includes peer criticism of other’s appearance, which occurs daily in the lives of adolescents (Eder, Evans, & Parker, 1995). Because of the benefits of prosocial behavior and the negative consequences of antisocial behavior, this study aims to look at the factors associated with the social behavior of teenagers.

Gender is one of the factors that has been associated with prosocial and antisocial behavior. Females engage in more prosocial behavior that is relational and communal, such as sharing, than males (Eagley, 2009). Burford, Foley, Rollins and Rosario found that preschool girls are more likely to share than boys (1996). While females are more likely to share, males are more likely to verbally bully others. Both males and females experience peer criticism of their appearance (Jones, Vigfusdottir & Lee, 2004), but males are more likely to engage in antisocial behavior such as bullying, including verbally insulting others than females (Scheithauer, Hayer,
Petermann & Jugert, 2006). Overall, females are more likely to engage in prosocial behaviors while males are more likely to engage in antisocial behaviors.

Sociometric status is another factor associated with prosocial and antisocial behaviors. Those with low sociometric status tend to engage in less prosocial behavior, such as sharing (Attili et al., 1997). Preschool children with low sociometric status tend to be more competitive while those with high sociometric status who tend to be more cooperative (Putallaz & Sheppard, 1990). In sharing interactions, those who are competitive are less likely to share while those who are cooperative are more likely to share. In addition to low levels of sharing, children with low sociometric status tend to have more conflicts than children with high sociometric status (Shantz, 1987). Those with low sociometric status also tend to disagree more than those with high sociometric status (Putallaz 1983, 1987). Coie and Kupersmidt (1983) and Ladd (1983) also found those with low sociometric status tended to be more aggressive. Thus, those with low sociometric status tend to engage in more antisocial behavior while those with high sociometric status tend to engage in more prosocial behaviors.

Number of friends has been associated with prosocial and antisocial behaviors, possibly because of opportunities (or lack thereof) to practice social skills. Hartup and Stevens found that sharing is an essential part of friendship through adolescence and into adulthood (1999). Sharing is an important prosocial behavior as it relates to building and maintaining friendships. Asher and Renshaw found that children with fewer numbers of friends shared less often than children with higher numbers of friends (1981). Similarly, children with fewer numbers of friends got lower playtime ratings than children with higher number of friends (Oden & Asher, 1997). Having a higher number of friends is associated with the prosocial behavior of sharing. However, the literature is mixed as to the relationship of number of friends and bullying, including verbal...
bullying. Wang, Iannotti & Nansel, found that having more friends was associated with engaging in more bullying (2010). Conversely, Espelage and Holt found no difference in number of friends listed for bullies compared to those who did not bully (2008). In addition, Espelage and Holt found that 75% of bullies listed other bullies as friends (2008). Thus, how number of friends is associated with bullying has yet to be determined.

Individually, gender, sociometric, status, and number of friends have been related to prosocial and antisocial behaviors. However, the interaction of these variables together has yet to be studied. In addition, most of the studies have been done primarily on preschool populations through 12 year olds. This study will look at the interaction of these three variables as they relate to the prosocial behavior of sharing and the antisocial behavior of rudeness in teenagers.

For this study, it is hypothesized that those with high sociometric status and number of friends will be more likely to share than those with lower sociometric status and number of friends and that this effect will be larger for females than males. It is also hypothesized that those with low sociometric status and fewer numbers of friends will criticize other’s appearance more than those with higher sociometric status and higher numbers of friends and that this effect will be larger for males than females.

**Method**

*Hi Chista! As we talked about in your Office Hours on Friday Oct. 31, I don’t have the correct information for this section. I have e-mailed Cal to ask him for the correct information and will plan to redo this section with correct/full information as soon as I have it! Thanks!*
In this section, I will talk about who was selected and how. Unfortunately, my Dataset did not contain information about race/ethnicity so that will not be included. From the information Cal gives me, I will talk about 1) Gender percentages, 2) average age/range, 3) Area (Midwestern High School) from which they were selected and 4) how they were selected.

Sample Size (N) 614 ? from ? participated in the current study.

Materials

From the information Cal gives me, I will talk about scales used in this Dataset. As you explained during lab, it looks as though there might not be more than one scale (The Social Skill measure) so much as individual items. I will provide information including the wording on the individual items my study asks about.

Procedure

From Cal, I will get the data collection details.

Results

As hypothesized, there was an interaction of gender, number of friends, and sociometric status as it relates rudeness, as measured by commenting negatively on other’s appearance, see Table 1 for descriptive statistics \(F(7,602)=3.132, Mse=1.462, p=.044, r=.187\) As hypothesized, there was no difference in rudeness between males who were popular and average for both low and high numbers of friends listed. As hypothesized, rejected males were rude more than popular males with a low number of friends listed. Contrary to the research hypothesis that those who are rejected will be more rude compared to those who are average or popular, there was no difference between males who were rejected and average for both low and high numbers of
friends listed and between males who were rejected and popular for high numbers of friends listed. Contrary to the research hypothesis that there will be no difference between those who are popular and those who are average in rudeness, those who were average were rude more than those who were popular for females with low numbers of friends listed. Also contrary to the research hypothesis that those who were rejected would be rude more than those who were popular or average, there was no difference for females with both low and high numbers of friends listed. Contrary to the research hypothesis that popular females would be rude less than average females, there was no difference between both average females and popular females with high number of friends listed.

There was not an interaction of gender and sociometric status as it relates to commenting negatively on other’s appearance $\left( F(2, 602)=1.614, Mse=1.462, p=.200, r=.115 \right)$. However, this effect is misleading for the comparison of popular and average females with low numbers of reciprocal friends listed, as average females commented negatively on other’s appearance more than popular females, while in general there was no difference in rudeness between average females and popular females.

There was not an interaction of number of friends and sociometric status as it relates to rudeness $\left( F(2, 602)=.149, Mse=1.462, p=.861, r=.022 \right)$. However, this effect is misleading for the comparison of popular and average females with low numbers of reciprocal friends listed, as average females were ruder than popular females while in general there was no difference in rudeness between average females and popular females.

There was not an interaction of gender and number of friends as it relates to rudeness $\left( F(1,602)=.950, Mse=1.462, p=.330, r=.040 \right)$. However, this effect was misleading for females who were popular as those who listed more friends were ruder than those who listed fewer
friends while in general there was no difference in rudeness between those who listed more friends and those who listed fewer friends.

There was not a main effect of sociometric status as it relates to rudeness ($F(2, 602) = .622, Mse = 1.462, p = .537, r = .045$). However, this effect is misleading for the comparison of popular and average females with low numbers of reciprocal friends listed, as average females were rude more often than popular females.

There was not a main effect of number of friends as it relates to rudeness ($F(1, 602) = .278, Mse = 1.462, p = .598, r = .021$). However, this effect was misleading for popular females, as those who listed more friends were more likely to be rude than those who listed fewer friends while in general there was no difference between those who listed more friends and those who listed fewer friends.

There was a main effect of gender as it relates to rudeness ($F(1, 602) = 5.210, Mse = 1.462, p = .023, r = .093$). However, this was misleading for popular people who listed low numbers of friends because males were more rude than females while in general females were more rude than males.

There was an interaction of gender, number of friends listed, and sociometric status as it relates to offering to share, see Table 2 for descriptive statistics ($F(2, 602) = 3.283, Mse = 1.383, p = .038, r = .112$). Contrary to the research hypothesis that those who are popular will be more likely to share than those who are average and those who are rejected, there was no difference between these groups for males with low levels of friend listing. Also contrary to the research hypothesis that those who are average would offer to share more than those who are rejected, there was no difference between these groups for males who listed low levels of friends. As hypothesized, those who were popular offered to share more than those who were average for
males who listed high levels of friends. Also as hypothesized, those who were popular offered to share more than those who were rejected for males who listed high numbers of friends. Contrary to the research hypothesis that those who were average would offer to share more than those who were rejected, there was no difference for males with high levels of friends listed. As hypothesized, those who were popular offered to share more than those who were rejected for females with low levels of friends listed. Contrary to the research hypothesis that those who were popular would offer to share more than those who were average, there was no difference for females with low levels of friend listing. Also contrary to the research hypothesis that those who are average would be more likely to share than those who are rejected, there was no difference for females with low levels of friend listing. Contrary to the research hypothesis that those who were popular would offer to share more than those who were average, there was no difference for females with high levels of friend listing. As hypothesized, those who were popular offered to share more than those who were rejected for females with high levels of friend listing.

Contrary to the research hypothesis that those who were average would offer to share more than those who were rejected, there was no difference between these groups.

There was not an interaction of gender and sociometric status as it relates to offering to share \( (F(2, 602) = .096, Mse = 1.383, p = .908, r = .018) \). However, this effect is misleading for the comparisons of popular and rejected and popular and average males with high levels of friend listing, as those who were popular offered to share more than both those who were average and those who were rejected while in general there was no difference in rudeness between these groups. This effect is also misleading for the comparison of popular and average females with low levels of friend listing, as those who were popular offered to share more than those who were average while in general there was no difference in rudeness between popular females and
average females. In addition, this effect is misleading for the comparison of popular and rejected females with high levels of friend listing, as those who were popular offered to share more than those who were rejected while in general there was no difference in rudeness between average females and rejected females.

There was not an interaction of number of friends and sociometric status as it relates to offering to share \((F(2,602)=2.250, Mse=1.383, p=.106, r=.086)\). However, this effect was misleading for the comparison of popular and average females with low levels of friend listing, as those who were popular offered to share more than those who were average while in general there was no difference between these groups. This effect was also misleading for the comparison of popular and average females with high levels of friend listing, as those who were popular offered to share more than those who were rejected while in general there was no difference in rudeness between popular and average females.

There was not an interaction of gender and number of friends listed as it relates to offering to share \((F(1, 602)=.593, Mse=1.383, p=.442, r=.031)\). However, this effect was misleading for males who were popular, as those with low levels of friend listing offered to share less than those with high levels of friend listing while in general there was no difference in rudeness between those with low levels of friend listing and those with high levels of friend listing.

There was a main effect of sociometric status as it relates to offering to share \((F(1, 602)=8.723, Mse=1.383, p<.001, r=.120)\). However, this effect is misleading for the comparison of popular and rejected males with low numbers of reciprocal friends listed, as there was no difference between these groups. This effect is also misleading for the comparison of popular and rejected females with low numbers of reciprocal friends listed, as there was no difference
between these groups. In addition, this effect is also misleading for the comparison of popular and average females with high levels of friend listing, as there was no difference between these groups. This effect was also misleading for the comparison of average and rejected females with high levels of friend listing as there was no difference between these groups.

There was not a main effect of number of friends listed as it relates to offering to share ($F(1, 602)=.339, Mse=1.383, p=.560, r=.024$). However, this was misleading for popular males with low levels of friend listing, as those with high levels of friend listing offered to share more than those with low levels of friend listing while in general there was no difference between those with low numbers of friends and those with high numbers of friends.

There was an interaction of gender as it relates to offering to share ($F(1, 602)=31.055, Mse=1.383, p<.001, r=.221$). However, this effect was misleading for those who were popular with high levels of friend listing as there was no difference between males and females while in general females offered to share more than males.

Discussion

This study looked at the factors associated with the social behavior of teenagers. The results showed that there were interactions between gender, number of friends listed, and sociometric status in relation to the prosocial behavior of sharing and the antisocial behavior of rudeness.

The interaction of gender, number of friends listed, and sociometric status for sharing showed no difference between any of the sociometric statuses for low numbers of friends. This could be because there are fewer opportunities to share with fewer friends. With high numbers of friends, popular males and females shared more than both rejected and average females who
were not significantly different. It is possible that those of popular sociometric status with high numbers of friends are more in demand to be shared with as more people are seeking their companionship or attention. It is also possible that they have high sociometric status because they engage in more prosocial behavior such as sharing. The current study generalizes the effects of Asher and Renshaw from preschoolers to teenagers finding that those of higher sociometric status share more often than those with low sociometric status (1981). This study also generalizes Burford, Foley, Rollins, & Rosario’s findings from a preschool population to a teenage population (1996). Similarly, this research converges with Eagely’s results that females engage in more prosocial behavior, including sharing than males. The current study’s results also converge with the finding of Attili et. al (1997) who found that those with higher sociometric status engaged in more prosocial behavior such as sharing than those with lower sociometric status.

The interaction of gender, number of friends and sociometric status for commenting negatively on other’s appearance was shown only for those with low numbers of friends. It is possible that those with low number of friends have few social interactions with which to practice acceptable social skills. Inversely, it is possible that without appropriate social skills, people are unable to make and maintain friendships. Either way, it appears that having high numbers of friends is associated with fewer rude comments. This is contrary to Wang, Iannotti and Nansel (2010) who found that those with more friends was associated with more bullying and Espelage and Holt (2008) who found no difference in number of friends listed for bullies and those who did not bully. This could be because the current study looked at an item asking about “telling others you don’t like the way they look” and the other studies looked at bullying as a whole, though they did include verbal bullying in addition to physical bullying. However, telling
others you don’t like the way they look is not necessarily perceived or intended as a bullying behavior, though it could be. Unlike the previous studies, the current study found that having a high number of friends is associated with less rude behavior.

Of subjects with low numbers of friends, those with rejected and average sociometric status showed more rude behavior than those of popular sociometric status for both males and females. Sociometric status, as determined by peers, could partially reflect their perception of an individual’s social behavior. Those of rejected and average sociometric status engaged in more rude behavior, and thus antisocial behavior, than those of popular status. Therefore, lower sociometric status is associated with negative comments on other’s appearances along with other antisocial behaviors including more conflicts, disagreements, and aggression (Shantz, 1987, Putallaz, 1983, 1987, Coie & Kupersmidt 1983, and Ladd 1983). Contrary to Scheithauer, Hayer, Petermann, & Jugert’s findings that males verbally bullied others more than males, females were rude more often than males (2006). However, this could be because Scheithauer, Hayer, Petermann, & Jugert looked at bullying, including verbal and physical aggression, while this study only looked at verbal insults.

Both analyses used self-report data. Consequently, there are possible confounds with this information. Specifically, self-report data is not necessarily an accurate representation of behavior. Especially given the social desirability of sharing and the undesirability of negative comments, it is possible that the data is not true to the real behaviors subjects actually exhibit. Future studies could avoid self-report measures to get more accurate representations of real-world behavior. For instance, future studies could use direct observation instead of a self-report survey.
This study also did not determine the specific relationship of these variables, only that there was a relationship. As with all correlation research, it is impossible to determine whether the subjects had a high number of friends or high sociometric status because they shared with others and were less rude or whether those who shared with others and were less rude because they had high numbers of friends and high sociometric. Future studies could look to see if there is a causal relationship, and if there is, which of variables are causal.

Finally, the dependent variables could be studied in relation to each other. Prosocial behavior and antisocial behavior are often incompatible behaviors; it is hard to be both prosocial and antisocial at the same time. Thus, studying whether sharing with others results in fewer negative comments about other’s appearance could help form targeted social skills interventions. If sharing (or other prosocial behaviors) were found to decrease verbal insults (or other antisocial behavior), social skills training could focus on teaching and reinforcing specific prosocial behaviors to not only decrease antisocial behavior but increase appropriate social behavior.

The current study converged with past research on social behaviors as they relate to sociometric status and number of friends as they relate to social behavior. This study also generalized findings from toddler and child populations to teenagers. This study also generalized findings that females share more than males. However, this study found results contrary to previous studies as to gender differences in verbal bullying. This study illustrated that there may be gender differences when verbal bullying is isolated from physical and verbal bullying taken as an aggregate. Previous studies showed that males bullied more often than females while this study found that females engage in verbal rudeness more than males.
Table 1

Summary of Telling Others You Don’t Like the Way They Look for Each Sociometric Status, Level of Friend Listing, and Gender

<table>
<thead>
<tr>
<th>Gender</th>
<th>Low Number of Friends Listed</th>
<th>Popular</th>
<th>Mean</th>
<th>Std</th>
<th>N</th>
</tr>
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<tr>
<td>Males</td>
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<td>2.36</td>
<td>1.364</td>
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<tr>
<td></td>
<td></td>
<td>Average</td>
<td>2.06</td>
<td>1.305</td>
<td>124</td>
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<td></td>
<td></td>
<td>Rejected</td>
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<td>.951</td>
<td>26</td>
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<tr>
<td></td>
<td>High Number of Friends Listed</td>
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<td>1.095</td>
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<td></td>
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<td>Average</td>
<td>2.11</td>
<td>1.418</td>
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<td></td>
<td></td>
<td>Rejected</td>
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<td>1.225</td>
<td>17</td>
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<tr>
<td>Females</td>
<td>Low Number of Friends Listed</td>
<td>Popular</td>
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<td>.602</td>
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<tr>
<td></td>
<td></td>
<td>Average</td>
<td>1.88</td>
<td>1.119</td>
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<td>Rejected</td>
<td>1.90</td>
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<tr>
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<td>1.122</td>
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<tr>
<td></td>
<td></td>
<td>Average</td>
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<td>1.104</td>
<td>94</td>
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<td></td>
<td></td>
<td>Rejected</td>
<td>1.83</td>
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</table>
Table 2

*Summary of Telling Others You Don’t Like the Way They Look for Each Sociometric Status, Level of Friend Listing, and Gender*

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