Students' Self-Identified Social Group and Their Perceptions of a Social Hierarchy at Their School

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ABSTRACT

This research explores whether high school students' perceptions of the prevalence of a social hierarchy at their school vary depending on the status of the students' self-identified social group. Multiple past studies and popular media have identified that students of all age levels form social groups with similar peers, and these groups often have different popularity and status rankings within the school environment. Previous research has noted that students' perceptions of peer dynamics can vary based on one's own social group, and this study explores this specifically by comparing students' perceptions of the prevalence a social hierarchy at their school to their self-identification with one of the 12 social groups defined in a study titled Contemporary College Students' Reflections on Their High School Peer Crowds by Rachel Gordon and other researchers in 2019. A voluntary, electronic survey was sent to students of North Creek High School asking students to describe their social group's status level and their opinion of the prevalence of a social hierarchy at North Creek. Analysis of the 125 survey responses found that there was a significant positive correlation between the self-identified status of a student's social group and the student's perception of the prevalence of a hierarchy. Additionally, self-identified high-status students identified more distinct and stereotypical social groups at their school than self-identified low-status students did. The connections these results have to past research are discussed and avenues for further exploration are identified.

Introduction

Cliques in high school are a seemingly common and recurring phenomena. The media's portrayal of stereotypical high school social groups in movies like *10 Things I Hate About You* and *Mean Girls* have led to the general belief that cliques consist of mean 'popular girls' vying for dates with the 'jocks' who bully the 'nerds' (Sandler, 2011, Alder et al., 1999). Although exaggerated in popular media, students' desire for familiarity and support among peers naturally causes some students to form closer relationships to one another than to others. Further, these like-minded social groups often provide individuals with belonging and encouragement (McFarland et al., 2014). Although the word "clique" often has a negative connotation, a clique, according to Merriam-Webster, is merely a "narrow group of persons… held together by common interests, views, or purposes." (Merriam-Webster). Thus, the formation of cliques or social groups is a natural and often beneficial part of adolescence.

This tendency for teens to form distinct social groups is especially prevalent at large high schools, as professor of education at Stanford University Daniel McFarland found. Large schools tend to offer a variety of non-required courses and extracurriculars, giving students ample opportunities to meet people with similar interests and form distinct social groups (Andrews, 2014). These different social groups, or cliques, in high school interact and have unique influence on each other. Something that has received significant attention in research, probably in correlation to its prevalence in media, is the existence of a social hierarchy between these groups of adolescents. In 2018, psychologist José Crochik and other researchers supported the existence of a double hierarchical structure in schools -- an "official" hierarchy based on academic achievement, and an "unofficial"

hierarchy based on the correlating values of athletic performance, social performance, and popularity (Crochik et al., 2018). Evidence suggests that adolescents are particularly sensitive to social status cues among peers, and that their perceived status can impact their self-confidence, behavior, wellness, and more (Koski et al., 2017). Thus, student's perceptions of this social hierarchy should be explored.

Literature Review

Popular media has associated certain stereotypical high school cliques with certain statuses. For example, in movies and TV pretty 'popular girls' obsessed with fashion are often depicted as at the top of the social hierarchy while introverted 'nerds' are at the bottom. Researchers at the University of Illinois in 2019, led by Rachel Gordon, recently found some truth to these associations. Through 90-minute focus sessions with recently graduated students, Gordon and her fellow researchers identified 12 peer crowds from themes in the students' discussions. In general, groups like the 'jocks', 'populars' and 'good-ats' were perceived as high on the social hierarchy while groups like the 'goths', and 'loners' were low (Appendix A) (Crabbe et al., 2019). Similar findings in other studies and in the personal experiences of many high schoolers suggest that these stereotypes and relative rankings are existent to some extent in most high schools in the US. However, there is very little research on how perceptions of these rankings vary based on the observer, or more specifically, what social group the observer belongs to.

Most research comparing different students' perceptions of social hierarchies at their school have been done in broad terms, like focusing on participants' ingroup and outgroup bias. In 2012, Doctors of psychology Kyongboom Kwon, Michele Lease, and Lesa Hoffman conducted a study to examine how a child's group membership affected their peer nominations. Using the Social Cognitive Map procedure, children's reports of peer groups were summarized with a co-occurrence matrix to define the general cliques in the grade and the students' memberships in them. When this social map was compared with students' peer ratings, the researchers found that students more often associated positive characteristics and high status indicators with their own cliquemates and negative characteristics and low status indicators to members of other cliques (Kwon et al., 2012). In concurrence, a study done by Galen Bodenhausen at Northwest University noted that people consider their own social category (as a member or nonmember) when rating the status of others (Bodenhausen et al., 2012). Therefore, students' perceptions of the characteristics of their classmates varied significantly based on who they had closer relationships to.

This difference in perception can also be applied to popularity. Professor of Sociology Donna Eder performed a study in 1985 that has been repeatedly corroborated since. By combining in-depth interviews and interpretations from observers, Eder and her fellow researchers were able to discern what social groups existed at a medium-sized middle school. After years of data collection, the research team concluded that the way students labeled other cliques depended on the status of the student's own clique - namely, what side of the cafeteria their clique sat on. In summary, students that sat on the popular side of the cafeteria but that were not part of the "popular group" viewed the "popular group" as stuck up, but did not view themselves that way. This group also viewed everyone sitting on the other side of the cafeteria as having a single, lower social status. Groups on this "non-popular" side of the cafeteria, however, saw differences in status among the groups on their side (Eder, 1985). In general, people have a tendency to apply more stereotypes to the groups that are further away from them in the hierarchy and that they have less contact with. Additionally, these stereotypes are more likely to be categorical as opposed to individual (Bodenhausen et al., 2012). Thus, student's perceptions of status and popularity depend on whether or not the student has close relationships with the people in the category they are observing.

However, this and other research on student perception has focused on popularity and ingroup and outgroup perception in a broad sense, and hasn't dove deeply into how certain social groups, like those identified by Rachel Gordon, view one another. Therefore the research question is: Do students' perceptions of the prevalence of a social hierarchy at their school vary depending on their specific self-identified social group and

its status? For example, do students that categorize themselves as "jocks" perceive a more prevalent social hierarchy than students that categorize themselves as "nerds?" According to sociologist Casey Borch, certain relationally aggressive behaviors, such as gossiping, that are stereotypically associated with groups of high social status increase the visibility of those students to their peers (University of Alabama, 2008). Thus, interactions with these groups are salient to their peers and increase a group's popularity, whether being liked or not. Therefore, I hypothesize that students in low-status cliques, according to Gordon's study, will perceive a more prevalent social hierarchy at their school than students belonging to high-status cliques.

Methodology

This project used a non-experimental quantitative approach to gather data. An electronic survey (Appendix B) was distributed to North Creek High School (NCHS) students to assess their perceptions of their peers' and their own specific social groups, in accordance with the research question. North Creek was chosen for the study because it is a large, public school conducive to social grouping (as determined by McFarland, above) with diverse racial composition (Appendix C), making the results potentially generalizable to other high schools. Google forms was the survey platform used because all North Creek students have google accounts and are familiar with the format, minimizing participant confusion and skewed results. The survey was distributed to students through text and social media, and it was also posted on the lunch bulletin so that every student had the chance to participate. Participation was strictly voluntary, and to encourage engagement from a wide variety of students to collect more representative results, an incentive of a raffle ticket for a $20 gift card was offered.

Before completing the survey, participants were presented with an informed consent form that detailed the survey's risks, benefits, and nondisclosure of identifying information (Appendix D). The survey questions were structured in reference to multiple sources - questions 9-10 were based on the first part of the semi structured discussion in Gordon's study, and the Likert-scale response options were used in a similar fashion to a study done by Jose Crochik and other researchers titled "School hierarchies: performance and popularity." The survey had 3 sections: The first section asked 3 questions about the respondent's gender, origin, and race. These questions ensured that the respondents were representative of all NCHS students and were not biased towards one gender or race.

The second section of the survey asked 7 questions about students' perceptions of themselves and other student groups at their school, measured in Likert scales to allow a range of answers. At the beginning of the section, operational definitions were provided for the words "social group", "social hierarchy", and "status." The first question in this section asked students' opinions of the prevalence (1 - not prevalent to 5 - very prevalent) of a social hierarchy at their school [Q5 in survey]. Then, it assessed the participants' own social group involvement, asking if they considered themselves as part of a group and at what "status" level they would assign their group [Q6-8]. This section also asked if the student associated any stereotypes or stereotypical group names with their own or other social groups [Q9-10] to explore if NCHS students perceived some of the same social groups that were found in Gordon's study. There was also an optional space for participants to provide an explanation for any of their responses, providing limited qualitative data for the study. The purpose of this section was to assess any preconceived notions participants had about a social hierarchy at their school. This section of the survey purposefully did not provide any stereotypical group names like "jocks" or "populars" to see if students would provide these labels on their own. Additionally, the survey did not use the word "clique" because of its negative connotation. In the analysis, certain questions were plotted against each other in a scatter plot to see if people's self-assessed social group status [Q7] correlates to their perception of the prevalence of a social hierarchy [Q5], for example.

The 3rd and final section of the survey first presented participants with the social hierarchy determined by researchers Rachel Gordon and others at the University of Illinois in 2019 (Crabbe et al., 2019). The purpose of this section was to determine if students perceived a social hierarchy at their school differently once they were presented with the group names "jocks", "loners", "floaters" etc. and the rankings between them. The first two questions asked students, on a Likert scale of 1-5, how accurate and prevalent the proposed hierarchy from the study was at their school [Q12-13]. The next two questions assessed student perceptions of the existence of these groups aside from the hierarchy, to see if students acknowledged the existence of these groups, but did not perceive rank differences between them [Q14-15]. The next question then asked if students considered themselves a part of any of the social groups listed [Q16]. The results of this question will be plotted against the Likert scale of question 13 to see if students' social group identification correlated with their perception of a social hierarchy at NCHS, to answer the central research question and address the gap in past studies. Last, there was another optional space for students to expand on or explain any of their previous answers.

Findings and Analysis

The data was analyzed using correlational methods, scatter plotting the Likert scales of hierarchy perception against self-identifying information. The qualitative data received will be coded by thematically analyzing the frequent themes, as was done in the UIC study. This process will be explained in detail in the analysis section. The correlational method is used to ensure the objectivity of results, but it can not determine cause and effect between the factors. The qualitative information collected will be referenced as possible explanations, but its generalizability is limited by the scale of the research. Although all NCHS students were given the option to take the survey in some form, the students who chose to fill it out may produce a biased sample, despite the incentive. Therefore, the statistical significance of the data will be calculated to ensure its validity.

In all, the survey received 125 responses. The average racial and gender composition of the respondents were similar to the composition of North Creek's total student population, meaning that the sample studied was representative of all NCHS students in these regards (Appendix E). As explained in the methodology section, the central research question of whether students' perceptions of the prevalence of a social hierarchy at their school varied depending on their identified social group was explored in two ways. The first part of the survey measured students' perceptions of themselves and other groups without being presented with the results of Gordon's study and stereotypical group names like "nerds," "jocks," and "populars." The second part of the survey presented the students with this information and then measured their hierarchy perceptions and self-identification at a more specific level. The correlations between self-identification and perception were calculated for both sections. To avoid manual calculation errors, google sheets was used to create preliminary graphs, visualize trendlines, and calculate correlation coefficients.

In the first part of the survey, students were asked to assess the prevalence of a social hierarchy at their school and the status level of their own social group. Below, the mean response of the respondents who self-identified as each of the status levels was graphed.
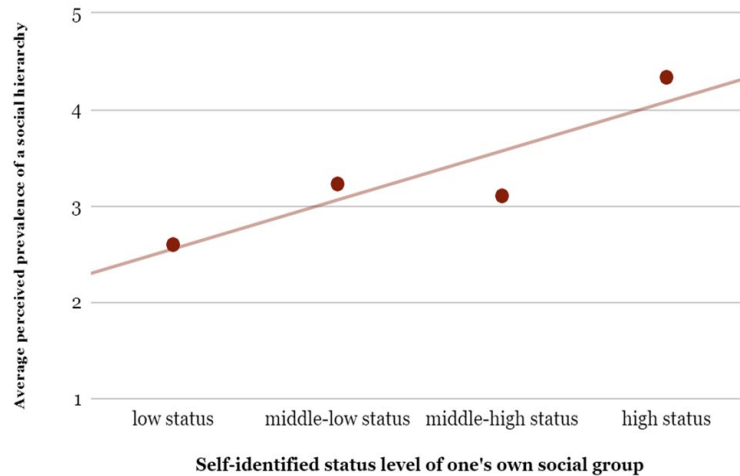
Figure 1. Student's perceptions of the prevalence of a social hierarchy at their school (1: not prevalent to 5: prevalent) based on the self-identified status level of one's own social group

As shown in figure 1, there was a relatively strong positive correlation between the self-identified status of one's own social group and their opinion of the prevalence of a social hierarchy at their school (r(124) = 0.89, p < .001). Therefore, people's self-identified social group status did correlate to their perceptions of a social hierarchy, but in the opposite way that I predicted. These results could possibly be explained by people's tendency to stereotype according to Eder's 1985 study. Her study noted that the "popular" students tended to uniformly assign lower social status to other groups at their school, while these other groups noted varying status levels among themselves (Eder, 1985). This may suggest that in this study, students that rated their social groups as "high status" may see a more prevalent distinction between their group's popularity and other groups' unpopularity, while the students that rated their social group as "low status" saw more variance in the status levels of groups at their school and thus perceived a less prevalent hierarchy. This theory is corroborated by some of the responses received in the optional free response section of the survey. For example participant 124 rated their social group as low-middle status and noted, "I think there's still a slight hierarchy, just not enough of one to have clearly defined groups within that hierarchy" while participant 49 rated their social group as high status and oppositely stated that "people don't really point out the groups people are in, it's more of a thing people just know," implying that distinct social grouping at their school is obvious.

Additionally, in the first section, participants were asked if they associated any stereotypes or stereotypical group names with their or others' social groups at North Creek. The participants' responses were coded in the same manner as Gordon's study by identifying recurring themes and their frequency. The results are summarized in figure 2 below. Highlighted rows indicate groups that were also identified in Gordon's study.

Group	Number of responses that self-identified with the group (/81)	Number of Responses that identified the group as existing at North Creek (/90)	Total number of responses that identified the group
Populars	8	39	47
Jocks, Athletes	7	20	27

Smart, Nerds	6	10	16
Racial/Ethnic Distinction	9	3	12
Loners, Weird, Quiet	2	9	11
Performing Arts	2	3	5
Stoners, Slack offs, Trouble-makers	2	3	5
Furries	0	5	5
Gamers, Anime	0	4	4
Floaters	2	1	3
Good-ats	2	1	3
Fine arts	1	1	2
LGBTQ	0	2	2
Other	0	6	6
No social groups identified*	13	13	26

Figure 2 Student's perceptions of their own and other social groups at their school

*In addition to the participants that explicitly stated they didn't associate any stereotypes with groups at their school (by saying "no, N/A, etc"), 39 students chose not to answer the question. We can assume these students would have answered in this category, although this number is not reflected in the table

As shown in the table, the "popular," "jock," "smart/nerd," and racial distinctions were most common among respondents. However, a significant number of respondents (37.9%) did not associate any stereotypical names with groups at their school. Interestingly, no students that classified their social group as 'low status' identified stereotypes or stereotypical group names, while 80% of students that rated their social group as 'high status' listed stereotypical group names. (middle-low and middle-high respondents were in the 35-50% range). This supports the findings above by adding that self-identified high-status students perceive more distinct and stereotypical social groups at their school in addition to a more prevalent social hierarchy than self-identified low-status students did. In connection with the findings that people tend to apply more stereotypes to those they have less contact with (Bodenhausen et al., 2012) and tend to enhance differences between ingroups and out-groups (Krueger & DiDonato, 2008), we can further theorize that students that self-identified as having high status may not associate with groups of lower status as frequently and therefore may develop more stereotypical and hierarchical views of their school's social group organization. However, since correlation doesn't prove causation, the opposite could also be true. Further research could be conducted to determine if, instead, groups that identified as "high status," did not associate with groups of lower status often and therefore developed more stereotypes.

In the next section of the survey, after participants were presented with the social hierarchy from Gordon's study, they were then asked to rate its prevalence at North Creek and their self-identification with any of

the groups listed. The means of the responses from each group were calculated, and figure 3 below displays the correlation between self-identified social group and perception of hierarchy prevalence.
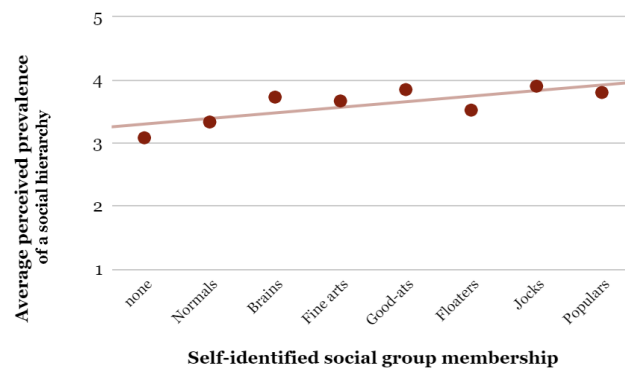
Figure 3. Student's perceptions of the prevalence of a social hierarchy at their school (1: not prevalent to 5: prevalent) based on their self-identified social group

   As displayed, there was a moderate positive correlation between the status of one's self-identified social group and their perception of a social hierarchy (r(124) = 0.768 p < .001). Interestingly, not a single respondent identified themselves as belonging to the stoners, goths, loners, or anime/manga groups identified in Gordon's study. This could have been due to the chance that the sample did not include people of these social groups, or participants' answers could have been skewed because of fears of confidentiality. More extensive research, not made possible by the time constraints of this study, could be done with a different research method to make participants feel more comfortable with sharing personal information. These findings further corroborate those found in the first part of the survey, that higher status groups (populars, jocks, floaters) perceive a more prevalent social hierarchy than middle-status groups (normals, brains, fine-arts). However, differences in hierarchy perception between different groups within the same status rating were not statistically significant. For example, "populars" did not perceive a social hierarchy significantly more prevalently than jocks, floaters, or good-ats did (r(51) = 0.184), even though Gordon's study determined a ranking between them (Appendix F). This may be because people's social performance, popularity, and athletic performance often correlate in the unofficial hierarchy (Crochik et al., 2018), meaning that groups like "jocks" and "populars" can overlap and interact with each other often and may have similar perceptions. However, we cannot discount the possibility that this phenomenon only occurs at North Creek High School, and at other schools, there may be a significant difference between the perceptions of groups within the same status.

Conclusion

Previously, research comparing students' perceptions of social groups was done in broad terms, like by examining people's ingroup/outgroup biases in categorizing others. Following a study conducted by Rachel Gordon and other researchers at the University of Illinois in 2019 that identified 12 common peer crowds in high schools, this study examined students' social group perceptions based on their self-identification with a specific social group. After analysis of the survey responses, it was found that there is a positive correlation between the status of students' self-identified social group and how prevalent they believe a social hierarchy is at their school. Additionally, the self-identified higher status students identified more stereotypical groups within their school than self-identified lower status students did. When these results are situated in comparison to previous literature, we theorize that higher-status students may perceive more prevalent social grouping because of in-

tentionally limited interaction with lower-status groups, but due to the nature of correlational studies, it is unclear which factor caused the other. Additionally, the results of this study determined that there is not a significant difference between the social hierarchy perceptions of groups within the same status level as determined by Gordon's study, which may be because the groups within the same status level frequently interact and may have similar perceptions.

There are, however, limitations to this study. North Creek High School was chosen for the study because of its large student body and racial diversity, but the results may not be generalizable to smaller schools or schools with more homogenous students. Further research could be done to corroborate the findings of this study with other high schools with different demographics across the nation. Additionally, the method of data collection could have influenced the results. Since, due to its anonymity, the survey was not proctored, participants could have rushed through the survey and submitted biased responses. A study with a different method, such as in-person focus groups or with a proctored survey, could be conducted as well to affirm the findings of this study. Last, the conclusions of this study are limited by the method of correlational analysis. Although this method can predict one variable – perception and self-identification – from the other, it cannot draw conclusions about causation beyond a theoretical level.

These results could have implications for fields concerning mental health in teenagers, because friendship formation and hierarchy perception has been found to impact students' self-confidence, wellness, academic performance, and more (Koski et al., 2017). Since purposeful heterogeneous student grouping by teachers in classroom activities and discussions about equality have contributed to a lack of polarization between student groups (Levinson, 1998), this study identified that this intervention should be targeted at self-identified higher status students who perceive more distinct social grouping in their school.

This study also identified avenues for further exploration. One aspect of social hierarchy perception that was not explored in this study was differences in perception between students of different grade levels. As multiple participants noted in the optional explanation section of this study, perceptions of a social hierarchy may change as students move up in grade level and get to know more of their peers. Although this study didn't differentiate between the perceptions of students in different grades, this question could be explored in a future study and compared to the findings of Maureen Hallinan and Stevens Smith in 1989 who found that students in higher grades tended to form smaller cliques (Hallinan & Smith, 1989). A second direction that research could take in the future is to examine social grouping and hierarchy prevalence at high school before and after the COVID-19 pandemic. Students at NCHS were forced to go into online learning for 14 months in 2020 and 2021 school years, during which certain social groups stayed in touch and formed closer friendships with each other. As participant 76 noted, this could have contributed to a more distinct social grouping atmosphere at North Creek compared to before the pandemic or at other schools that did not have such extensive remote learning. Research into students' perceptions of social groups with or without extensive remote learning could contribute to the field of study about how the pandemic has impacted teenagers' social development.

Acknowledgments

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