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# ADOLESCENT STATUS STRUGGLES: EXPLORING THE RELATIONSHIP BETWEEN CONFLICT AND SOCIAL STATUS MOBILITY IN MIDDLE SCHOOL

By

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#### ABSTRACT OF THE DISSERTATION

Adolescent Status Struggles: Exploring the Relationship

Between Conflict and Social Status Mobility in Middle School

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Interpersonal conflict and social status are two fundamental features of groups. Scholars have examined the nature of the relationship between conflict and social status among adolescents in schools. They find that conflict, broadly defined to include aggression, can lead to decreases in some status measures and increases in others. I rely on theories of the origins of status hierarchies (Gould 2002) and interpersonal conflict (Gould 2003), along with findings from previous research, to inform tests of the relationship between conflict and social status in schools. Specifically, I use a large and diverse sample of middle school students to explore how conflict affects social status mobility for boys and girls in the sample. I use two measures of status: social preferences, which captures how well-liked students are, and brokerage status, which captures how centrally positioned students are in their networks and their ability to broker ties. I also explore how conflict with friends (who are generally similar in terms of status), relative to conflict with non-friends, matters for the relationship between conflict and brokerage status for students who have at least one conflict tie with schoolmates. Findings reveal that increases in conflict are

ii

negatively associated with social preference, but positively associated with increases in brokerage status for all students. When the sample is limited to students who have at least one conflict tie with others, I find that going from having conflict with non-friends at the beginning of the year to having conflict with friends at the end of the year, is associated with increases in brokerage status for boys. Gender differences in friendship structure and dynamics may explain why conflict with friends is not instrumental to status for girls. Ultimately, I suggest that participation in conflict may signal to others that one is socially involved in school life, which in turn helps students become more well-known and occupy unique central positions in the school network. Additionally, going from challenging non-friends to challenging friends, reflects that one understands social norms regarding who is an appropriate target for dominance competitions (i.e., those similar in status, like friends). Contributions to the research and implications for school-based personnel are discussed.

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## **DEDICATION**

To my mother, for the countless sacrifices you made to get me where I am today. I love and admire you more than I could ever put into words. This accomplishment is ours.

## **Table of Contents**

Abstract	ii
Acknowledgments	iv
Dedication	vi
Table of Contents	vii
List of Tables	viii
Chapter 1: Introduction	1
Chapter 2: Descriptive Analysis of High-Status and High-Conflict Adolescents	14
Chapter 3: Conflict As a Social Status Mobility Mechanism in Schools	36
Chapter 4: Conflict with Friends and Social Status Mobility	54
Chapter 5: Conclusion	76
Acknowledgment of Previous Publication	114
Bibliography	115

## List of Tables

Table 1: Descriptive Statistics for all Students in the Sample	93
Table 2: T-tests Comparing High Brokerage Status Students (top 10%) to Remaining Schoolmates	96
Table 3: T-tests Comparing High Social Preference Status Students (top 10%) to Remaining Schoolmates	98
Table 4: T-tests Comparing High Conflict Students (top 10%) to Remaining Schoolmates	100
Table 5: Summary: Variables where High Status and High Conflict Youth have Greater Means than Remaining Schoolmates	102
Table 6: Descriptive Statistics for all Variables in the Models	103
Table 7: Change Score Models Predicting Social Preference Status Mobility	106
Table 8: Change Score Models Predicting Brokerage Status Mobility	108
Table 9: Descriptive Statistics for all Variables in the Models	110
Table 10: Change Score Models Predicting Brokerage Status Mobility	112

#### **CHAPTER 1: INTRODUCTION**

Social status is the prestige accorded to individuals because of the positions they occupy in social hierarchies (Gould 2002). The sorting of people into positions in social hierarchies and the drive to acquire more status are pervasive aspects of group life. Higher social status is associated with both material and nonmaterial rewards, such as respect and social approval (Gould 2002; Merton 1968; Ridgeway and Correll 2004). As a result, people frequently compete to achieve or maintain higher status positions. Interpersonal conflict, a state of disagreement that usually arises when individuals have incompatible or opposing behaviors and views (e.g., Laursen and Pursell 2009), is another common feature of groups that occurs alongside pro-social cooperation and expressions of solidarity.

Given that conflict and status orderings are two fundamental features of groups, scholars have examined the nature of the relationship between interpersonal conflict and social status in different settings (Gould 2003; Martin 2009). Gould (2003) suggests that interpersonal conflict is common in many social relations in part because individuals are continuously striving for greater dominance in those relations. Since youth become increasingly concerned with status as they reach adolescence (Li and Wright 2014), schools are particularly interesting sites to study this relationship. However, much of the empirical work in schools has focused specifically on acts of aggression and the consequences of such behaviors for individuals and for group dynamics.

Findings from these studies suggest that hierarchical relations between group members can be a source of aggression (Faris and Felmlee 2011). They also find that aggression is negatively associated with some status measures but positively associated

with others (Prinstein and Cillessen 2003; Shin 2017). Further, some suggest that students may strategically engage in aggression with particular kinds of students (such as those similar in status, such as friends, or those slightly higher in status) as a way of challenging those relations (Andrews, Hanish, and Santos 2017; Faris 2012; Peets and Hodges 2014).

While important, the aforementioned studies have their limitations. For instance, many fail to account for the influence of interpersonal conflict, which may or may not be manifested in acts of aggression. Interpersonal conflict and aggression can overlap, such as when a conflict between individuals escalates to a physical fight. However, students can resolve conflicts before they escalate to aggression. Students may also have unresolved conflicts with others but choose to ignore them and not act out aggressively since doing so may get them in trouble with school personnel. As a result, conflict is more subtle and likely more pervasive than aggression in schools. Further, much of this work relies on small samples of students and lacks clear theoretical frameworks to guide research questions and hypotheses.

I advance this literature by using a large and diverse sample of students, and by relying on theories of the origins of status hierarchies (Gould 2002) and interpersonal conflict (Gould 2003), to inform tests of the relationship between conflict and social status mobility in middle schools. I begin by providing rich descriptions of students in the sample, particularly of those with the highest levels of status and the highest number of conflict ties, to get a better understanding of the characteristics (i.e., demographic, involvement in activities, experiences in school) that distinguish such young people from lower status peers and those with fewer conflicts. Having profiles of high status and high

conflict youth, in turn, helps inform findings regarding the relationship between conflict and status mobility in schools.

I further specify the relationship between conflict and status mobility by accounting for the influence of important factors, such as the amount of conflict youth have with others in their school (measured as number of conflict nominations students send to-and receive from- schoolmates) and having conflict with friends (versus those one is not friends with). Below I briefly review the relevant research, discuss gaps in the field, and outline the objectives and contributions of each chapter in this dissertation.

Social Status and Conflict: Common Features of Adolescence

Since higher social status is associated with both material and nonmaterial rewards, such as respect and social approval (Gould 2002; Merton 1968; Ridgeway and Correll 2004), people frequently compete to achieve or maintain higher status positions. During adolescence, youth start to pay increasing attention to their social standing relative to their peers (Li and Wright 2014). Schools are interesting sites for the study of status not only because adolescents spend a lot of their time there, but because these settings are characterized by informal status hierarchies that allow students to sort out status for themselves (Faris 2012). This makes it easier for students to make moves up and down the status hierarchy than in settings with more formal hierarchies where status positions are clearly determined and therefore harder to challenge. Not surprisingly, empirical studies have demonstrated substantial social status mobility in schools (Smith and Faris 2015). Hierarchical relations between group members may even be a source of aggression in this setting.

Generally, adolescents tend to view aggression and bullying more positively as they progress through middle school (Pellegrini and Long 2010). Psychologists, who produce a substantial proportion of the research on bullying, argue that aggression may be a response to frustration, humiliation, or mental pathologies. Others suggest that students act out aggressively because they lack the social skills necessary to resolve conflicts (Jimerson, Morrison, Pletcher, and Furlong 2006). Generally, these accounts fail to consider the importance of social status for adolescents and how the desire to attain higher levels of status may entice some students to engage in negative or antisocial behaviors.

Sociologist Roger Gould accounts for the importance of status in understanding conflict relations. He suggests that conflicts are common in schools partly because they are "fiercely competitive" settings where youth constantly challenge others for status (2003:47). He adds that conflict and status are intrinsic because individuals in social relations, across various settings, are continuously striving for greater dominance and control over what happens in those relations and about who is in charge. Although Gould (2003) does not explore how conflict affects status mobility specifically, he does suggest that conflict can be a way to challenge and renegotiate who is in charge in social relationships.

Empirical work supports the claim that conflict, broadly defined to include aggression, can affect status mobility and that the effects of conflict on status differ depending on how status is measured (Cillessen and Rose 2005; Prinstein and Cillessen 2003). Two common network measures of status in schools are social preference, also known as sociometric status, and peer-perceived popularity (Prinstein and Cillessen

2003). Studies find that aggression is negatively associated with social preference status, a measure of how well liked a student is (Sijtsema, Veenstra, Lindenberg, and Salmivalli 2009), and with having social preference status goals (Li and Wright 2014).

However, aggression is also positively associated with peer-perceived popularity, which captures students' perceptions of peers' popularity (Cillessen and Rose 2005; Sijtsema et al. 2009). Adolescents can be perceived as popular by their peers, even if they are not well-liked. For instance, longitudinal studies suggest that over time, aggression is associated with a loss of social preference status and an increase in popularity (Cillessen and Mayeux 2004; Shin 2017).

Although less common, social network centrality has also been used to measure status in peer groups. One type of network centrality measure, betweenness centrality, captures the number of times an individual connects others in the network via the shortest path (going through as few other people as possible). Students with high betweenness centrality serve as bridges connecting others in the network (Faris and Felmlee 2011). Given their ability to brokerage ties, students with high brokerage status are likely highly visible members in their schools and thus well-known among their peers. According to Faris and Felmlee (2011), betweenness centrality helps capture the brokerage positions that are often associated with status in schools. They also suggest that competition to gain or maintain status motivates the use of aggression among adolescents.

Some scholars suggest that adolescents may perceive aggression as instrumental to status and therefore purposely engage in aggressive behaviors. This body of work suggests that students challenge specific others as a means of exerting dominance and achieving status. For instance, Faris (2012) finds that in schools, students gain status if

they are aggressive towards high status peers, aggressive peers, or those socially close, such as friends.

Overall, these studies have documented the importance of status for youth, the prevalence of negative behaviors in schools, and the relationship between status and aggression in this setting. Yet, despite the attention given to this topic, there are gaps in the literature that warrant further research.

#### **Gaps in Previous Research**

Given the number of different ways to measure status, and the broad nature of conflict in schools, which may or may not encompass aggressive behaviors, an important first step in understanding the relationship between conflict and status is knowing more about the characteristics of students in these settings. Scholars have examined the characteristics of youth with high levels of status and how they compare to their peers (Cillessen and Rose 2005; Faris 2012), but most of this research has examined traits of youth who possess commonly explored measures of status in schools, such as popularity and social preference.

Less attention has been given to understanding the profiles of adolescents who have high levels of different status measures that may be prevalent in schools. For instance, betweenness centrality has been used as a measure of status in this setting, and is significantly associated with aggression among adolescents (Faris and Felmlee 2011). Yet, no study, to my knowledge, has systematically explored the characteristics of students who possess high levels of this status measure. Doing so would help us better

understand the relationship between aggression and this underexplored measure of status in schools.

Similarly, despite the attention given to aggressive youth in the school setting, few studies have empirically examined the characteristics of students who indicate having a lot of conflict with peers (i.e., demographic, involvement in activities, experiences in school). As suggested earlier, conflict and aggression may overlap, but not necessarily. Given its broader and subtler nature, conflict may be more prevalent than aggression in schools. Students who report having a lot of conflict with others may be different than their peers who have fewer conflicts in meaningful ways.

This suggests the need to examine conflict relations in schools and to understand the characteristics of youth who engage in high amounts of conflicts with their peers. Further, more research is needed to understand the relationship between conflict and status mobility during adolescence. Previous work in schools has examined the role of aggression in status competitions and how it relates to social status mobility (Andrews et al. 2017; Faris 2012; Prinstein and Cillessen 2003) yet, these studies have not explored how conflict in and of itself can affect status mobility. It may be the case that students with lots of conflicts, regardless of whether those conflicts lead to aggressive behaviors or not, can also gain status in schools. Knowing this is important given its implications for school-based interventions.

Finally, much of the research that has explored the relationship between aggression and status is typically atheoretical or relies on theory simply to explain findings and not to also inform propositions. Previous empirical work in this area also

generally relies on small sample sizes, making it hard to generalize to the larger adolescent population.

#### Research Objectives, Contributions, and Theory

To address limitations in the existing literature, I begin by examining the characteristics of students with high levels of status in comparison to other students. In Chapter 2, I explore the characteristics of high status youth to provide rich substantive descriptions of these students. Adolescents generally care about status and they strive to achieve higher levels of status, even when they express not caring about their positions in the social hierarchy (Gould 2003). Given this, and the fact that elite status positions are scarce since only a few students can achieve these unique positions, examining the profiles of high status youth and how they are similar or different from their lower status peers is appropriate and may point to empirically important patterns. Since there are multiple ways of capturing status, results from these analyses can also be helpful in exploring similarities and differences between youth who possess high levels of different status measures in schools.

I use two measures of status: social preference, which captures how well-liked a student is, and betweenness centrality, or what I am referring to as brokerage status, which captures the number of times a student connects others in the network, or brokers ties, via the shortest path (going through as few other people in the network as possible). Since students with high brokerage status occupy unique positions that allow them to broker ties, they are likely highly visible members in their schools and thus well-known among their peers. While many studies have used social preference as a measure of

status, to my knowledge, only one study has explored the relationship between aggression and status using brokerage positions in schools (Faris and Felmlee 2011). Therefore, this study will provide insight into the characteristics of students in these unique positions in their school's networks.

I next examine the characteristics of youth with the highest amounts of conflict and compare them to those with fewer conflicts. Doing so is an important first step in understanding whether students with a lot of conflict are conceptually different from those who have less conflict and how their characteristics might compare with those of aggressive youth, as suggested by previous literature. If conflict is more widespread than aggression in schools, as I suspect it is, then systemically examining the traits of youth with a lot of conflict is important. In doing so, I will contribute to the literature by clarifying the meaning of network conflict.

Ultimately, understanding more about the traits of youth who possess high levels of status, as well as those who engage in a lot of conflict with their peers, gives us a better understanding of the relationship between conflict and status mobility in schools, which is the focus of Chapter 3. A main contribution of that chapter is using theory to articulate tests of the relationship between conflict and social status mobility in schools. In order to do this, I draw on Roger Gould's theories of interpersonal conflict (2003) and status hierarchies (2002) to orient my arguments regarding the relationship between conflict and status. Gould does not examine how conflict affects status mobility, therefore, I do not provide direct tests of Gould's theories. Instead, I use Gould's ideas as the foundation of my propositions, while also relying on findings from previous empirical work.

I apply Gould's theorizing regarding the role of interpersonal conflict in social relations, and the role of status ambiguity in producing conflict, in order to inform my main hypotheses. Although his main theory is about the origins of conflict, Gould (2003) suggests that conflict is also a way to challenge and renegotiate who is in charge in social relationships. Using this logic, I assess whether and how the amount of conflict one has with schoolmates affects status mobility in schools. As suggested in the previous section, understanding this relationship has broader implications. If having conflict with peers can lead to status gains, school-based interventions need to go beyond implementing conflict resolution strategies as these alone may not suffice to reduce conflict and aggression.

After assessing the basic relationship between conflict and status mobility, in Chapter 4 I draw on Gould's (2002) argument that conflict is more likely to occur in social relations where individuals are similar in status, for instance between friends, to formulate predictions regarding the relationship between conflict with friends and status mobility. It is easier to challenge someone when there is not an obvious hierarchical relationship (i.e., between friends versus between a boss and an employee). Given this, conflict with a friend, who is likely of similar or equal status, may have a different effect on status mobility than having conflict with someone an individual does not have an existing friendship with.

Ultimately, in this dissertation I clarify the meaning, and expand our knowledge, of conflict and two status measures in the school setting. I articulate tests of the relationship between conflict and social status mobility and elaborate on this relationship by accounting for the influence of important factors, such as having conflict with friends.

Researchers have examined gender differences in terms of expectations in social interactions for boys and girls and in the structure of their friendships. Girls tend to develop intimate relationships that emphasize affection, cooperation, and caring (Rose and Rudolph 2006; Shin 2017). Not surprisingly, girls generally have smaller friendship groups characterized by more self-disclosure and fewer conflicts when compared to boys (Benenson 1990; Hawley, Little, and Card 2007; Rose and Rudolph 2006). On the other hand, boys tend to have less intimate relationships (e.g., less self-disclosure) with more friends (Benenson 1990; Rose and Rudolph 2006). Compared to girls, boys are also more likely to communicate with each other in assertive ways that emphasize dominance and their friendship groups are characterized by higher levels of conflict than girls' (Hawley et al. 2007). Not surprisingly, boys tend to engage in more physical forms of aggression whereas relational forms of aggression that are less physical and more discrete (i.e., spreading rumors) are more common among girls (Dijkstra, Cillessen, and Borch 2013; Prinstein and Cillessen 2003; Shin 2017).

Although boys and girls experience conflicts in their relations with schoolmates, girls may be under more pressure to resolve their conflicts, especially with friends, while boys may be able to more easily display dominance, even towards friends. Gendered expectations in adolescents' social interactions may impact boys' and girls' abilities to make moves up and down the status hierarchy. Therefore, I perform all analyses separately for boys and girls. It is not my intention to directly test for gender differences, but rather to further understand how conflict matters for status for students in these different groups.

#### Data

In order to conduct these analyses, I use data from a year-long field experiment with over 21,000 students in 56 middle schools in New Jersey (see Paluck, Shepherd, and Aronow 2016). The experiment tested whether students' behaviors, particularly the behavior of salient individuals, could influence other students' perceptions of social norms of conflict and shift overall levels of conflict at the school. All public middle schools in the state were invited to apply for the program. Schools were selected for participation based on demonstrated commitment and other logistical considerations.

The characteristics of the 56 selected schools are approximately representative of the characteristics of public middle schools in New Jersey overall. However, the participating schools have a smaller mean percentage of Black students and Asian American students than in the state as a whole (nine percent of Black students for this sample compared to 15 percent in all NJ middle schools; six percent of Asian American students for this sample compared to nine percent in all NJ middle schools), but a larger mean percentage of Hispanic students (24 percent for this sample compared to 18 percent in all NJ middle schools). This sample also has slightly fewer mean suspensions than in all NJ middle schools (five vs. eight), and slightly higher student to teacher ratios and student to administrator ratios (11.3 vs. 10.8 and 338 vs. 303, respectively). Finally, this sample includes fewer of the poorest schools, more of the second-poorest schools, and more of the upper-middle class (but not the wealthiest) schools.

As part of the experiment, half of the selected public schools received an intervention program. The intervention program was a grassroots campaign led by a randomly selected group of students who developed ideas and materials for addressing

peer harassment. Through a series of 10 meetings, students were encouraged to be, and assisted in becoming, "change-makers" with respect to peer harassment at their schools. As part of the design and evaluation of the intervention, students in all the schools completed a survey at the beginning of the school year, in the fall of 2012, and at the end of the school year, in late spring 2013 (N = 21,124). Each survey included a network nomination section, a personal background and activities section, a section on perceptions of the norms of conflict-related behaviors, and an attitudes and experiences section.

These data are ideal for the purposes of my study for several reasons. This sample is much larger and more racially and ethnically diverse than those analyzed in similar studies (Faris and Felmlee 2011; Faris 2012). This allows me to better generalize findings to the larger adolescent population, particularly in states with diverse student populations. Additionally, since students were asked to nominate others in the school they have conflict with, I am able to assess how instances of disagreements between students matter, irrespective of whether students also engaged in aggressive behaviors.

I do not focus on the causal effects of the intervention on social status mobility because the experiment was not designed to alter social status. Results do not differ when I control for being a treatment student (participating directly in the intervention program) so treatment controls are excluded from the analytical models in subsequent chapters.

# CHAPTER 2: DESCRIPTIVE ANALYSIS OF HIGH-STATUS AND HIGH-CONFLICT ADOLESCENTS

#### Introduction

Status orderings and conflict are fundamental features of groups. Scholars have long examined the nature of the relationship between conflict and status for adolescents. However, many do so without systematically examining profiles of students that make up their samples. Studies have documented characteristics of youth with high levels of status in schools, but most of this research has examined traits of youth who possess commonly explored measures of status in this setting, such as popularity and social preference (e.g., Cillessen and Rose 2005). Less attention has been given to understanding the profiles of adolescents who have high levels of different status measures that may be prevalent in schools, like betweenness centrality. More research is needed to understand differences between students who have high levels of different status measures in schools.

Similarly, more research is needed to understand the profiles of students who have a lot of conflict with their peers. Despite their potential overlap, conflict and aggression are distinct. Yet much of the research in schools has focused specifically on aggressive behaviors among youth. We know for instance, that students who are highly aggressive are conceptually different from their peers with lower levels of aggression. (i.e., they have stronger reputations as aggressors among peers; Andrews et al. 2017). Additionally, aggression is positively associated with certain status measures, like popularity, while negatively related to others, like social preference (Prinstein and Cillessen 2003). We do not know whether the same holds true when we look at interpersonal conflict irrespective of involvement in aggressive behaviors.

In this chapter, I contribute to the literature on conflict and social status by providing rich descriptions of students who occupy high social status positions and those who have the highest amounts of conflict with their schoolmates. I use a network measure of conflict that accounts for the number of times a student is nominated, or listed, by others as someone they have conflict with, as well as the number of times a particular student nominates others in the school as someone he or she has conflict with.

Social status is measured using two network metrics. Social preference status captures the number of times a student is nominated by others as someone they like to spend time with (proxy for friendship) and helps capture "likability" among peers. I also look at an underexplored measure of status in schools, betweenness centrality, or what I refer to as brokerage status. Brokerage status is a measure of the number of times an individual helps to connect others in the network via the shortest path (going through as few other individuals as possible). Students with high brokerage status connect others in their network and therefore are likely well-known and highly visible members of their school communities.

I use descriptive analyses to examine the characteristics (i.e. demographic, involvement in activities, experiences in school) of students in top social preference status positions (top 10% of incoming "spend time with" distribution) and with top brokerage status scores (top 10% of betweenness centrality distribution). More specifically, I use two sample T-tests to examine differences in means between students with the highest levels of social preference status and all other students (those below 90<sup>th</sup> percentile), and between those with the highest levels of brokerage status and all other students (those below 90<sup>th</sup> percentile).

I focus on high status youth in particular because adolescents generally care about status and they strive to achieve higher levels of status, even when they express not caring about their positions in the social hierarchy (Gould 2003). Given this, and the fact that elite status positions are scarce since only a few students can achieve high levels of status, examining the profiles of students in these unique positions and how they are similar or different from their lower status peers may point to empirically important patterns.

I also explore the characteristics of youth who have lots of conflict with schoolmates. I use two sample T-tests to examine differences in means between students with the highest amount of conflict (top 10% of conflict distribution) and all other students (those below 90<sup>th</sup> percentile). Unlike other studies, I examine traits of students who have high amounts of conflict ties compared to those with fewer conflicts in order to better understand whether these groups of students are conceptually different.

Findings from this chapter contribute to the literature in several ways. While there are various ways of thinking about and measuring status, how to best measure status in schools is not yet settled. Results from these analyses are helpful in understanding similarities and differences between youth who possess high levels of two different status measures. In particular, I add to our understanding of brokerage status, which remains underexplored in the school-based literature.

Given the distinctions between conflict and aggression, and the fact that the literature has predominately focused on aggressive behaviors, findings from this chapter also shed light on the traits of students who have a lot of conflict, irrespective of their involvement in aggressive behaviors. If conflict is more widespread than aggression in

schools, as I suspect it is given its more subtle nature, understanding the role of conflict in schools generally is important.

Finally, exploring the characteristics of students who occupy unique top positions in their schools can inform findings regarding the relationship between conflict and status mobility, which I explore in the following chapter. I begin by outlining different ways of measuring status and distinguishing conflict and aggression in schools.

#### **Background**

Types of Status Measures in School

Empirical work has documented the importance of status for adolescents, particularly in schools. This research taps into various measures of status, though some have received more attention than others. Two commonly explored network measures of status in schools are social preference, also known as sociometric status, and peer-perceived popularity (Prinstein and Cillessen 2003).

Social preference is a measure of students' "likability" or acceptance/rejection among peers, often measured by asking students to nominate others they like to spend time with the most and the least (Prinstein and Cillessen 2003). Peer-perceived popularity measures peers' perceptions of a student's popularity by asking students to nominate other students in the school they consider popular. This measure captures peers' perceptions of an individual's social reputation (Prinstein and Cillessen 2003). While there can be some overlap between these constructs, such as when popular adolescents are also well-liked, that is not always the case. For instance, one study found that only 36 percent of students who are socially preferred are also considered popular (Cillessen and

Rose 2005). Ultimately, these are distinct ways of understanding and measuring status in schools.

Though less common, social network centrality has also been used to measure status in peer groups. One type of network centrality measure, betweenness centrality, captures the number of times an individual connects others in the network via the shortest path (Faris and Felmlee 2011). Students with high betweenness centrality bridge structural holes in networks by connecting others through as few other students as possible. Faris and Felmlee (2011) suggest that betweenness centrality best captures the brokerage position that is often associated with status in the school context since peers depend on these centrally located students to make ties possible. As a result, these students are also in advantageous positions to receive resources that flow through the network or to stop others from gaining access to those resources. Since this measure helps to capture how well-connected students are, it may also tell us about how well-known or how visible students are in their schools' networks.

The aforementioned studies have relied on social network measures to capture status in schools. Others, like Faris (2012), have used non-network measures to capture status in these settings. By using information from high school yearbooks, Faris used accolades to determine student's social status positions. For instance, a student who was voted by peers as having "prettiest eyes" or being "most likely to succeed," and those who won prom king or queen, were considered to have "elite status" among peers.

Scholars have used a range of network and non-network metrics to capture social status in schools. In the following section, I outline studies that have examined

characteristics of youth using these different status measures in order to get a better understanding of common characteristics of these students.

Characteristics of Adolescents: How Status and Aggression Coincide

As previously mentioned, two common measures of status in schools are social preference and peer-perceived popularity. Studies have demonstrated that while related and potentially overlapping, these status measures are distinct and students possessing high levels of each of these measures often display different kinds of behaviors. For instance, students who have high levels of social preference status, who are therefore well-liked, tend to display a range of prosocial skills. They have stronger leadership skills than disliked youth and belong to more stable friendship groups. These students also engage in fewer socially aversive behaviors, like teasing and bossing (Gest, Graham-Bermann, and Hartup 2002). Socially preferred youth also value forming and maintaining good relationships and they are less aggressive than youth who are perceived to be popular (Shin 2017).

On the other hand, peer-perceived popular youth tend to display a range of prosocial and antisocial behaviors. For instance, they possess positive relationship-enhancing attributes, such as being extroverted, but can also be seen as aggressive by their peers (Hawley 2003). Popular adolescents can also be well-liked and have high levels of social preference, despite being aggressive, especially if they possess social skills that mitigate the negative effect of their aggressive behaviors (Hawley 2003). Similarly, Shin (2017) finds that youth perceived as popular are characterized by their peers as attractive and sociable, but also manipulative, controlling, and physically aggressive.

Adolescents also tend to view aggression and bullying more positively as they progress through middle school (Pellegrini and Long 2010). Not surprisingly, the relationship between peer-perceived popularity and relational aggression becomes stronger during this time period (Hawley et al. 2007). Studies even find that in middle school, bullies are among the most popular students in the school (Thunfors and Cornell 2008) and that they view fighting as a source of popularity (Huang, Cornell, and Konald 2015).

While we know about the characteristics of students who possess these common measures of status, we know less about those characterized as having high levels of other kinds of status measures. For instance, Faris (2012) used yearbook accolades to measure "elite status," but this measure cannot speak to the characteristics of students who won such awards, beyond the fact that they won for a particular reason, like having "prettiest eyes." A student nominated as prom king may be perceived by peers as popular, and perhaps is also socially preferred, but without having data regarding these student's characteristics, it is difficult to assess how awards signal social status in more comprehensive ways. Faris and Felmlee (2011) use betweenness centrality as a measure of status, but provide little descriptive information regarding characteristics of youth possessing high levels of this measure.

Given the potential overlapping, yet distinct nature of different status measures, I describe students occupying high status positions in their schools, measured as social preference and what I am referring to as brokerage status, to see how they compare to the rest of their peers in lower status positions. Social preference (measured as number of incoming "spend time with" ties) helps to capture how well-liked students are. Brokerage

status (measured using betwenness centrality scores) may help to capture how well-known students are.

#### Making the Case for Conflict

Many of the aforementioned studies focus specifically on aggression in the school setting. This is not surprising given how disruptive aggressive behaviors can be and the need for disciplinary measures that these behaviors elicit. Yet, the focus on aggression masks the potential impact that conflict itself may have in schools.

Interpersonal conflict is a state of disagreement that arises when individuals have incompatible or opposing views on a particular matter (Laursen and Pursell 2009). Aggression on the other hand is a type of behavior that is typically intended to cause harm, whether physical or mental (Sidorowicz and Hair 2009). Conflict and aggression can overlap, such as when a serious conflict between individuals escalates to a physical fight. Given this overlap, it is possible that students with lots of conflict share similar characteristics as highly aggressive youth and that the relationship between conflict and status in schools may be similar to that between aggression and status, as suggested by previous research.

However, that may not always be the case since the two are still distinct. For instance, conflicts between individuals may get resolved and never escalate to aggressive behaviors. Because students understand that acting out in aggressive ways may get them in trouble with school personnel, they may not act aggressively toward another student, even if they have a conflict with him or her. Thus, conflict can be more subtle and harder

to detect than aggression. As a result, instances of conflict may be more pervasive than aggression in schools.

Similarly, while aggression is relational, involving a perpetrator and a victim, perceptions of conflict can be one-sided. For instance, student A may perceive there is an issue with Student B over some matter, but student B may not perceive there is a conflict in return. It is also plausible that Student A has a conflict with Student B, but student B, may not acknowledge that conflict. Not acknowledging a mutual disagreement may even be a strategy for establishing dominance in social relations. Although not the focus here, an individual may even act aggressively toward another person that he or she has no conflict with. This type of unprovoked behavior may be indicative of more serious mental health concerns. Overall, given these differences, more research is needed to understand the role of conflict in schools.

There is some research indicating that highly aggressive youth are conceptually different from the rest of their peers. For instance, students who are highly aggressive are more likely to have reputations as aggressors among their peers. For these students in particular, challenging other youth, regardless of other youths' status positions, can lead to increases in status, which is not the case for students who are less aggressive (less aggressive peers have to be strategic about who they challenge in order to gain status; Andrews et al. 2017). Although I am unable to directly compare traits of highly aggressive youth and those with a lot of conflict (students were not asked about aggressive behaviors as part of the study), I examine the characteristics of youth who have lots of conflict with their peers and those with fewer conflicts to see if these groups of students also differ in important ways.

#### Potential Influence of Gender

I consider the potential influence of gender by assessing the characteristics of students with high levels of status and those that engage in high levels of aggression for girls and boys separately. Studies of adolescents indicate that boys and girls participate in different kinds of aggressive behaviors. For instance, boys tend to be more physically aggressive, particularly toward other boys, whereas girls tend to display aggression in subtler ways, like through teasing or gossiping (Faris and Felmlee 2011; Prinstein and Cillessen 2003; Shin 2007). Although boys and girls may engage in different forms of aggression, findings are mixed with some authors demonstrating minor gender differences and others finding no differences, particularly when types of aggression measures are combined.

The purpose of this chapter is to better understand the characteristics of students in top status and top conflict positions in their schools. I do this by examining the characteristics of these youth compared to the rest of their schoolmates. Given the gender differences in behaviors some researchers have documented, I perform the analyses in this chapter for boys and girls separately. However, it is not my intention to test for significant differences by gender. Instead I explore how high status girls compare to lower status girls and how high conflict girls compare to all other girls with lower involvement in conflict. I do the same for boys.

#### **Research Objectives and Analytic Technique**

In this chapter, I explore the characteristics of youth with the highest levels of social preference status, as well as those with highest levels of brokerage status to see

how they compare to their lower status peers. In doing so, I examine empirical differences between these different status measures. I also help clarify the meaning of network conflict in schools. Rather than propose formal theory-driven hypotheses, I explore the characteristics of these students to lay the groundwork for subsequent chapters where I test hypotheses derived from theory and previous empirical work in the field.

I use descriptive analyses to examine the characteristics of students in top social preference status (those in the top 10% of the incoming "spend time with" distribution) and top brokerage status (those in the top 10% of betweenness centrality distribution) positions. More specifically, I use two sample T-tests to examine differences in means between students with the highest levels of social preference status and all other students (those below the 90<sup>th</sup> percentile of incoming "spend time with" distribution), and between those with the highest levels of brokerage status, and all other students (those below the 90<sup>th</sup> percentile of betweenness centrality distribution). I do this for boys and girls separately. Status categories may overlap since some students may be in top social preference and top brokerage status categories.

The same analyses are conducted to assess the characteristics of students with the highest numbers of conflict nominations (measured as the top 10% of incoming and outgoing conflict distribution) and all remaining students (those below the 90<sup>th</sup> percentile of conflict distribution). In this chapter, unlike in subsequent chapters, I do not use listwise deletion to get a uniform sample given that the large number of variables explored would result in a significant loss of cases. The sample consists of 21,124 students; 10,456 girls and 10,668 boys. After accounting for missing cases across

variables, the sample size ranges from 9,395 to 10,456 for girls, and from 9,674 to 10,668 for boys. In order to simplify result tables below, and given that there is no uniform sample, I do not include information regarding sample sizes. In order to streamline results further, I only show results for variables where significant differences were detected. I do not account for differences across schools in these descriptive analyses, but I do control for differences across schools in analytical models in subsequent chapters.

#### Measures

Status Variables

Students were asked to list students in their school that they "decided to spend time with (in school, out of school, or online)" in the last few weeks. Students could nominate up to 10 schoolmates. I measure social preference status using the number of incoming nominations a student receives from other students as someone they choose to spend time with (range: 0-35). I assume that students who receive more nominations have higher social preference status than students with fewer nominations.

I assess brokerage status using students' betweenness centrality scores (range: 0-0.10950). The more times a student provides the shortest path between two other students, the higher his or her betweenness centrality score. Students with high brokerage status are well connected in their school's network and have the ability to broker many other relationships (Faris and Felmlee 2011). Therefore, these students are likely well-known and highly visible members of their school communities.

#### Conflict Measure

Students also reported up to five students at the school they "had conflict with" whether face to face, through texts, or online. The sum of the total number of students'

incoming conflict nominations and outgoing conflict nominations is overall conflict (range: 0-41).

Other Variables

Background characteristics: I take several demographic variables into account which research suggests are important when considering the relationship between status and conflict in schools. Students were asked their birth date (data are provided as age in days which ranges from 3502 to 5974), gender, and self-identification with several racial/ethnic groups. Students could select multiple racial/ethnic categories. Dummy variables were constructed to capture whether students identified as white, black, Hispanic, Asian or "other." A series of dichotomous variables (coded 1 if "yes" and 0 if "no") were used to capture whether students reported having younger siblings, older siblings, or no siblings, whether they speak only English at home (as opposed to speaking another language), whether their mothers went to college, whether they have college plans, whether they moved in the last few years (as opposed to living in the same place), whether their friends come over every week, and finally, whether friends say their house is really nice (a proxy for high socioeconomic status).

Activities in and out of school: Students responded to a series of questions (coded 1 if "yes" and 0 if "no") to assess whether they: play sports, date people at the school, are in theater/drama club, are in music club, read books for fun, whether they use social media platforms like Facebook, Twitter, and/or Instagram, and if they do lots of homework.

Experiences/Perception in Schools: "Positive experiences" at the start of the year are captured by combining answers to a series of yes/no questions that ask students

whether in the fall, students have been nice to them, have posted good things about them (online or though text), told them they look nice, and have spoken up for them (values range 0-4). "Negative experiences" are captured using a series of yes/no questions that ask students whether others have excluded them, have messed with them, have gossiped or spread rumors about them, have made fun of how they look, posted bad things about them (online or though text), threatened, hit, or pushed them, insulted their race or ethnicity, or said they are gay (values range 0-9). Students also responded to a series of questions (coded 1 if "yes" and 0 if "no") that capture whether they feel like they belong in school and whether they think they "have to be mean to survive."

Altercations in School: Disciplinary data provided by the schools are used to assess the number of incidents in which students were involved in physical and nonphysical altercations. I measure "physical altercation" by combining answers to several yes/no questions regarding whether students showed physical aggression towards other students (violence, pushing, kicking), had inappropriate contact with other students (such as spitting), and if school personnel recorded an incident as "Bully/Harassment, Intimidation & Bullying" during the current school year (range: 0-6). I measure "nonphysical altercation" by combining answers to several yes/no questions that assess if students used inappropriate language towards other students (written or verbal), had a verbal altercation with another student, made threats, spread rumors, or made biased comments (towards another student's gender/sexual orientation, etc.), and if they harassed peers online, if they incited violence/planned to fight, or if they made offensive gestures to other students (range: 0-5).

Students' Perceptions of Themselves: Finally, a series of dichotomous variables (coded 1 if "yes" and 0 if "no") were used to capture student's perceptions of themselves. Specifically, at the end of the school year (these questions were not asked at the start of the school year), students were asked whether they thought they were: popular, well known, well dressed, outgoing, respected, good at sports, a trouble maker, tough, nerdy, someone who stays out of conflict, fun, nice, and funny.

#### **Results**

Table 1 provides descriptive statistics for all of the variables used in this chapter, for girls and boys separately. All variables are measured at the beginning of the year, with the exception of the final set of variables regarding students' perceptions of themselves, which is only available at the end of the year. On average, students receive about seven or eight "spend time with nominations" from their peers, with girls being slightly more socially preferred than boys. Girls start the year with a brokerage status score of .00661 and boys with a score of .00666. Adolescents start the year with an average of just under three conflict nominations. For information on all other variables see Table 1 below.

Characteristics of High Brokerage Status Students

In Table 2, I provide descriptive information comparing youth with the highest levels of brokerage status (in top 10% of brokerage status distribution) and all remaining students. Means are presented only for variables in which there were significant differences between those in top positions and all remaining students whether just for girls or boys, or for both.

Compared to students below the 90<sup>th</sup> percentile of brokerage status, youth in top brokerage positions have higher mean levels of conflict. Girls in top brokerage status positions have an average of 3.41 conflict nominations whereas remaining girls with lower levels of brokerage status have 2.81 conflict nominations, on average. Similarly, boys in top brokerage status positions have an average of 3.47 conflict nominations, compared to 2.83 conflict nominations from boys in lower status positions.

More high brokerage status youth also identify as Hispanic, have friends who say their house is nice, have friends who come over every week, play sports, date others in the school, use social media (Facebook, Twitter, and Instagram), have negative experiences in school, and participate in theatre and music, compared to their lower status counterparts. These students are also significantly more likely than the rest of their schoolmates to describe themselves as: popular, a leader, outgoing, respected, good at sports, a trouble maker, tough, and funny.

There are some notable gender-specific patterns. More top brokerage boys have college plans, positive experiences in school, and describe themselves as well-dressed and fun, compared to lower status boys. More girls in top brokerage status positions, relative to girls in lower status positions, report having older siblings and reading books for fun. On the other hand, more girls who do not occupy top brokerage status positions, report staying out of conflict and describe themselves as "nice" compared to girls in top brokerage positions. Although I do not test for gender differences, these findings suggest that boys in top status positions may have more of the traditional markers of status, such as being well-dressed and being fun, which likely contribute to their positive experiences in school. The same may not be true for girls.

Characteristics of High Social Preference Status Students

In Table 3, I compare youth with the highest levels of social preference status (in top 10% of social preference distribution) and all remaining students. More youth in top social preference positions have higher mean levels of conflict compared to the rest of their schoolmates. Top social preference girls have an average of 3.51 conflict nominations, compared to 2.78 nominations from remaining girls. Similarly, top social preference boys have 3.16 conflict nominations whereas all other boys have 2.85 nominations, on average.

Students with high levels of social preference status also report being older, being white, having older siblings, having college plans, having friends who say their house is nice, having friends who come over every week, playing sports, dating, using social media (Facebook, Twitter, and Instagram), and having positive experiences in school, more so than students not occupying top status positions. At the end of the year, more of these students describe themselves as popular, well dressed, a leader, outgoing, respected, good at sports, tough, fun, and funny. These students are also less likely to read books or participate in music and more of them say they are nerdy compared to their lower status counterparts.

Few gender-specific patterns emerged. More girls with high levels of social preference status, relative to those in lower status positions, report negative experiences in school and describe themselves as "well known." Interestingly, more boys in top social preference status positions describe themselves as trouble-makers but also as nice. Fewer high status boys say they feel like they belong and that they have to be mean to survive, compared to all other boys.

Since boys who do not occupy these top status positions feel they need to be mean to survive, they may be experiencing victimization and feel they need to be assertive as a means to get by. There is empirical evidence suggesting that while high status youth are protected by their top status positions, students in the middle ranges of status are more likely to be victimized by others (Faris and Felmlee 2011). If these students do in fact experience more victimization, it can contribute to them feeling like they do not belong. *Characteristics of Students with High Amounts of Conflict* 

Table 4 presents results comparing differences between youth in the top 10% distribution of overall conflict and the remaining students with fewer conflict nominations. Relative to other students, those with the highest amounts of conflict ties, on average, have significantly higher levels of brokerage status. Top conflict girls report an average brokerage status score of .0078, whereas all other girls have an average score of .0064. Similarly, boys with the highest levels of conflict, have an average brokerage status score of .0081, whereas remaining boys have a score of .0064.

Students with high levels of conflict also report being black, having friends who come over every week, playing sports, dating others in the school, using social media (Facebook, Twitter, and Instagram), having negative experiences at school, and getting into physical and nonphysical altercations, more so than remaining students with fewer conflict nominations. At the end of the school year, these students also describe themselves as: popular, well dressed, leaders, outgoing, good at sports, trouble makers, tough, and fun, more so than those with lower overall amounts of conflict. On the other hand, students who do not have the highest amounts of conflict with peers, report staying

out of conflict, reading books for fun, and being "nice" significantly more so than those with lots of conflict nominations.

Interestingly, more girls with the highest levels of conflict, are socially preferred compared to girls with fewer conflicts. More of these girls also report identifying as white, having older siblings, speaking only English at home, and being involved in theater. Boys in these top conflict positions report having more friends who say their home is nice, have more positive experiences, are respected, and fewer participate in music or do lots of homework, compared to all other boys.

Summary: Comparing High Status and High Conflict Youth

In Table 5 I summarize the characteristics that youth with the highest levels of status and conflict share (and do not share) regardless of gender, compared to the rest of their peers. Top status and top conflict students not only think of themselves as leaders, outgoing, and popular, but they are also socially involved online (through social media) and offline (through sports, dating, and hanging out with friends). Top status youth specifically, irrespective of status measure, share some additional characteristics. Most notably, they have more conflicts than the rest of their peers in lower status positions (See Table 5 for additional comparisons).

When comparing top status youth to all remaining students, those with the highest levels of brokerage and social preference status differ from each other in important ways. Compared to the rest of their peers, students with the highest levels of social preference status have more positive experiences in school and they describe themselves as fun. On the other hand, top brokerage status students have negative experiences and describe themselves as trouble-makers. Interestingly, those with the highest levels of conflict have

more brokerage status, but not more social preference status. See Table 5 for additional comparisons.

Further, more students with the highest levels of conflict also indicate having negative experiences in school, and describe themselves as being trouble-makers, and being involved in physical and nonphysical altercations. Although I cannot directly compare students with lots of conflict and highly aggressive students, the traits of high conflict youth suggest that these students may in fact be more aggressive than the rest of their peers. Given this, the effect of conflict on status mobility may be similar to that between aggression and status mobility, as described in previous literature.

### Conclusion

While previous studies have noted traits of high status youth in schools, many have not done so in empirically comprehensive ways that allow us to better understand the characteristics of these students and how they compare to their schoolmates. Further, despite there being various ways of measuring status in schools, we know more about youth who are perceived by peers to be popular and those that are socially preferred, but less about students with high levels of brokerage status and other measures of status.

In this chapter I set out to explore characteristics of youth occupying high status positions and those who engage in high levels of conflict with schoolmates. Ultimately, although top status youth share many similar characteristics when compared to their lower status counterparts, these status measures may still be tapping into different kinds of status in schools. In particular, they differ in that top brokerage status girls and boys have more negative experiences and more describe themselves as trouble-makers than

those with lesser brokerage status. The same is not true of top social preference students. Ultimately, brokerage may be a more exclusive type of status given the unique positions students have to occupy in order to have high levels of this type of status measure. Top brokerage status youth may also be exposed to more students (and potentially more students who are different from themselves) which might put them in more tense situations than others. In the following chapter, I continue to explore how these different status measures matter for the relationship between conflict and status mobility.

Since much of the literature in schools has focused on observable acts of aggression, by looking at the characteristics of youth involved in lots of conflict, we also gain a better understanding of the profiles of these students. I find that when compared to their lower conflict peers, top conflict youth share similar characteristics as those occupying top status positions. For instance, they are socially involved online (i.e. through the use of social media) and offline (i.e. through dating, playing sports, having friends over every week). I also find that more top conflict kids are involved in physical and non-physical altercations and they consider themselves to be trouble makers, relative to the rest of their peers, suggesting that they may share traits with aggressive youth. However, despite engaging in some antisocial negative behaviors, these students also have friends that come over every week, suggesting that they may be well-liked despite being involved in lots of conflict with others.

Ultimately, findings from this chapter shed light on the characteristics of students in top status and conflict positions and how they differ from the rest of their peers. In the following chapter, I continue to explore the relationship between conflict and status.

Specifically, I assess whether engaging in more conflict with schoolmates affects

student's ability to make moves up and down the status hierarchy throughout the school year. Since some gender differences emerged when comparing high status and high conflict youth to the rest of their lower status and lower conflict peers, and because girls are more socially preferred than boys (p<0.001; results not shown), I explore the relationship between conflict and status mobility for boys and girls separately.

# CHAPTER 3: CONFLICT AS A SOCIAL STATUS MOBILITY MECHANISM IN SCHOOLS

#### Introduction

Previous studies have explored the relationship between social status and aggression, particularly among adolescents. These studies generally find that that aggression leads to increases in certain types of status measures but not others. Empirical evidence suggests that aggression is negatively associated with social preference, or with being "well-liked" (Sijtsema et al. 2009), as well as with having social preference status goals (Li and Wright 2014). Similarly, others have found that aggression is associated with a loss of social preference status over time (Prinstein and Cillessen 2003).

However, aggression is also positively associated with popularity, which captures students' perceptions of who is popular in the school (Prinstein and Cillessen 2003). Similarly, when using awards or accolades (from high school yearbooks), Faris (2012) finds that students can gain status if they are aggressive towards high status peers, aggressive peers, or those socially close, like friends. Although a less common measure of status in schools, brokerage status (betweenness centrality) has also been used to measure status in peer groups. According to Faris and Felmlee (2011) who use this status measure, competition to gain or maintain status motivates the use of aggression among adolescents in schools.

While Faris and Felmlee (2011) find that status is a significant predictor of aggression, others, like the aforementioned authors, find that aggression is a predictor of social status. The relationship between aggression and status is likely bidirectional and as such, the two are continuously affecting each other. In this study, it is not my intention to

determine whether both directions of association yield significant findings (i.e. whether conflict is a significant predictor of status and status a significant predictor of conflict) nor to determine which is stronger. Rather, I rely on theory and findings from previous studies, to explore how conflict with schoolmates affects students' ability to make moves up and down the status hierarchy, while acknowledging that status likely subsequently affects participation in conflict.

I begin by providing an overview of the literature that examines the relationship between aggression and status in schools. I rely on insights from this research and Gould's (2003) theories regarding the role of interpersonal conflict in social relations to suggest my own propositions about how conflict affects status mobility throughout the school year. Specifically, I examine the relationship between change in participation in conflict and change in two network-derived measures of social status – social preference, which helps capture how well-liked students are, and brokerage status, a measure of occupying a bridging or brokerage position in a network that helps capture how well-connected students are. I test these propositions using change score models, which allow researchers to examine the effects of events in two-wave panel data (Allison 1994; Johnson 2005) to assess how conflict with schoolmates affects these two status measures. I examine the relationship between conflict and status mobility for boys and girls separately.

Findings from this chapter help us better understand the relationship between conflict and status in the school setting in ways that are theoretically informed. Given that much of the literature has focused on aggression, this study can also help inform how conflict in particular matters for this relationship. Additionally, since conflict prevention

programs in schools have largely ignored these peer status motivations (Faris and Felmlee 2011), this study can provide an avenue for exploring conflict reduction strategies that keep status goals at the forefront.

## **Background**

Gould on Conflict in Social Life: Orienting Ideas

I rely on theorizing from Roger Gould (2003) to further explore the relationship between conflict and status. In particular, I use his work on the role of interpersonal conflict in social relations. Although his main theory is about the origins of conflict, and he does not differentiate between status measures, Gould's work is helpful in understanding the nature of the relationships between conflict and status in multiple settings, including schools.

According to Gould (2003), we have to account for people's positions in the social hierarchy in order to make sense of conflict. Interpersonal conflict is a feature of many social relationships because people continuously strive for greater discretion over what goes on in those relationships. Conflict results from disagreement between individuals about relative dominance within the relationship. However, conflict may also serve as an opportunity to challenge existing dominance arrangements. Specifically, Gould (2003) suggested that:

"[...] struggle is the primary means by which people individually and collectively set the terms of their relations with others. According to this way of viewing matters, conflict is an intrinsic part of many social relations, even if it is not always a visible part, because people in these relations continually jockey for greater discretion over what goes on in them" (p. 38).

Further, people may get into serous conflicts about materials things, not because such things are necessarily important, but rather because they provide an opportunity to show others who is in charge; they are "good to compete with" (Gould 2003:38).

If conflict serves as an opportunity to renegotiate status positions, then it is plausible that involvement in conflict impacts an individual's ability to make moves up and down the status hierarchy. This may be particularly true in schools given that they are "fiercely competitive" settings (Gould 2003:47). Schools are also generally characterized by informal status hierarchies that allow students to sort out status for themselves, making it easier to challenge one another (Faris 2012). Not surprisingly, empirical studies have demonstrated substantial social status mobility in schools (Smith and Faris 2015).

Gould does not suggest that conflict leads to status mobility among adolescents, but if conflict presents an opportunity to challenge status hierarchies, then it may lead to status increases in schools. Before exploring whether this is the case, I review the literature that has examined the effects of aggression on different status measures.

Aggression and Being Well-Liked

A common measure of status in schools captures how well-liked students are. Social preference is a measure of students' "likability" or acceptance/rejection among peers and is often measured by asking students to nominate others they like to spend time with the most and the least (Prinstein and Cillessen 2003). Empirical evidence suggests that aggression is negatively associated with social preference (Sijtsema et al. 2009) and with having social preference status goals (Li and Wright 2014). Smaller longitudinal studies suggest similar findings whereby aggression is associated with a loss of social preference status (Prinstein and Cillessen 2003). Aggression may be detrimental to a

student's social preference status since people do not generally enjoy spending time with highly aggressive others leading them to be less well-liked (Prinstein and Cillessen 2003).

Descriptive findings from the previous chapter revealed that compared to the rest of their peers, students with the highest levels of conflict consider themselves to be trouble-makers and are more involved in physical and nonphysical altercations. This suggest that students with lots of conflict may be similar to those who are highly aggressive. Given this, the effect of conflict on status mobility may also be similar to that between aggression and status mobility as described in previous literature. Therefore, participating in conflict with peers may also be negatively associated with social preference status. Drawing on this conceptualization of social status, and on the insights of previous work, I propose that:

Hypothesis 1: An increase in peer conflict nominations from Wave 1 to Wave 2 is associated with a decrease in social preference status throughout the school year.

Aggression as Establishing Dominance for Acquiring Status

While aggression leads to decreases in social preference, previous studies suggest that among adolescents, aggression towards peers may also be perceived and used as a strategic resource for acquiring other types of status through establishing dominance over others. This body of work operationalizes status in a myriad of ways including: accolades and awards, measured using yearbook information (Faris 2012); popularity, measured by asking students to nominate others they consider most and least popular (Prinstein and Cillessen 2003; Peets and Hodges 2014); proximity prestige, which accounts for the number of friendship ties in a network and how close peers are to one another (Andrews

et al. 2017); as well as betweenness centrality, which captures brokerage positions in networks and helps determine how well-known students are (Faris and Felmlee 2011).

Generally, this body of work posits that establishing dominance over others may increase one's relative standing in a group and lead to increases in status. Faris and Felmlee (2011) argue that aggression is perceived by students to be instrumental for gaining status, and thus social status motivates the use of aggression. Others have found that among adolescents, strategic and proactive use of aggression is associated with popularity in particular (Prinstein and Cillessen 2003). In fact, a study of middle school students found that bullies were among the most popular students in the school (Thunfors and Cornell 2008). Similarly, students characterized as bullies were more likely to report that fighting is a source of status and popularity (Huang et al. 2015).

This body of research further assumes that youth are conscious of-and make strategic decisions about-who they target for dominance displays. For instance, targeting friends, who are likely similar in terms of status, may yield status rewards more so than challenging peers outside of one's "status league" (more on this literature in Chapter 4). Ultimately, conflict can serve as an opportunity to renegotiate status positions.

More specifically, more conflict ties with schoolmates may be associated with increases in brokerage status. Students who occupy brokerage positions are likely highly visible members of their school community. By being involved in more conflict with others, students may have more opportunities to forge relationships with others, even if they are not well-liked. As a result, these students may have more opportunities to occupy unique central positions in their networks. Therefore, I propose that:

Hypothesis 2: An increase in peer conflict nominations from Wave 1 to Wave 2 is associated with an increase in brokerage status throughout the school year.

# **Research Objective**

While a large body of work addresses the topic of conflict and status broadly, few use longitudinal data to examine how conflict and aggression shape status mobility in schools (Andrews et al. 2017; Faris 2012; Prinstein and Cillessen 2003). In this chapter, I address the question of how conflict influences social status mobility throughout the school year using a large sample of middle school students. Specifically, I examine the relationship between change in participation in conflict and change in two network-derived measures of social status: social preference and brokerage status.

#### Measures

Status Variables

Students were asked to list students in their school that they "decided to spend time with (in school, out of school, or online)" in the last few weeks. Students could nominate up to 10 schoolmates. I measure social preference status using the number of incoming nominations a student receives from other students as someone they choose to spend time with (range: 0-35). I assume that students who receive more nominations have higher social preference status than students with fewer nominations.

I assess brokerage status using students' betweenness centrality scores (range: 0-0.10950). The more times a student provides the shortest path (going through as few other students as possible) between two other students, the higher his or her betweenness centrality score. Students with high brokerage status are well connected in their school's

network and have the ability to brokerage many other relationships (Faris and Felmlee 2011). Therefore, these students are likely well-known and highly visible members of their school communities.

For both types of status measures, I use change in status between the two waves of data as my dependent variable. The social preference status outcome variable is a change score measured as wave 2 indegree minus wave 1 indegree. The same process was used to create the change score variable for brokerage status. Because residuals from the models predicting brokerage status are not normally distributed, I take the square root of these centrality scores (before calculating change) to normalize the residuals. I control for status at the start of the school year in each model.

# Conflict Variable

Students also reported up to five students at the school they "had conflict with" whether face to face, through texts or online. Indegree conflict captures an individual's total number of incoming conflict nominations. The sum of an individual's outgoing conflict nominations is outdegree conflict. Indegree and outdegree conflict were combined into a single conflict variable that captures the number of times an individual nominates others as individuals he or she has conflict with, plus the number of times they receive such conflict nominations. This variable captures change in conflict using both waves of data. All models control for the influence of conflict nominations at the beginning of the school year.

#### Other Variables

I include several time-varying control variables that may serve as markers or determinants of status in middle school. The inclusion of the following control variables is also guided by the descriptive findings from Chapter 2.

Physical Appearance. At both waves, students reported their relative age appearance by answering the following question: "People say that I look...younger than/about the same age as/older than...most students in my grade."

Activities and Dating. Using a series of questions that they checked off to indicate participation and left blank to indicate lack of participation, at both survey waves, students reported whether they participated in sports, music club, and theater club. They also reported whether they did lots of homework, dated other students at the school, and whether they use Facebook, Twitter, or Instagram. For each of these control variables, I created four sets of dummy variables to capture: no participation in either wave, participation in both waves, participation in wave 1 but not wave 2, and participation in wave 2 but not wave 1.

Wave 1 variables. Additional control variables, available at wave 1 only, were also included in the models. I consider whether students say they have friends who come over every week and whether students have friends who say their house is nice (proxy for income). For each of these variables students could indicate "yes" or "no."

Like in Chapter 2, I control for whether students have positive or negative experiences at the start of the school year. "Positive experiences" are captured by combining answers to a series of yes/no questions that ask students whether in the fall students have been nice to them, have posted good things about them (online or though

text), told them they look nice, and have spoken up for them (values range 0-4). "Negative experiences" capture whether students feel that others in the school have excluded them, have messed with them, have gossiped or spread rumors about them, have made fun of how they look, posted bad things about them (online or though text), threatened, hit, or pushed them, insulted their race or ethnicity, or said they are gay (values range 0-9).

Although significant in some of the analyses in Chapter 2, physical altercations and nonphysical altercations are not included in the models below given their high rates of missing data (since several schools did not share disciplinary data). Preliminary tests revealed that they did not significantly affect status mobility. Given their availability at wave 2 only, several control variables that were significant in the analyses in Chapter 2 are not included in the models below (i.e., I am: popular, a leader, outgoing, good at sports and tough).

## **Analytical Technique**

I use change score models, which allow researchers to examine the effect of events in two-wave panel data. When the focus of the research is to understand the effect of an event or transition on an outcome and the researcher wants to control for the possibility that exogenous variables may be affecting the event and outcome, change score models are appropriate and yield better estimates than lagged dependent variable models (Allison 1994; Johnson 2005). Because data are drawn from students in different schools, school-level fixed effects are included in all models to control for the potential influence of unobserved school-level variables.

To assess whether conflict differentially affects status for boys and girls, I run four separate change score models. Models 1 and 2 in Table 7 test for the relationship between conflict and social preference status for girls and boys, respectively. Models 1 and 2 in Table 8 test for the relationship between conflict and brokerage status for girls and boys, respectively. All models include school-level fixed effects and control for conflict and status at the beginning of the school year. I include additional control variables at wave 1 only. In both models I exclude control variables that are not significant for boys and girls (see notes in each respectively table for a list of excluded non-significant variables). After using listwise deletion for cases missing on one or more of the variables in the models, the final analytical samples consist of 8,947 girls (out of 10,456) and 8,289 boys (out of 10,668).

#### **Results**

Table 6 provides descriptive statistics for all of the variables used in the models by gender. At the end of the school year (wave 2), boy and girls both had higher average social preference status than at the beginning of the year (an average increase of 0.14 nominations to 8.10 nominations for girls and an average increase of 0.28 nominations to 8.08 nominations for boys). Similarly, at the end of the school year, girls and boys had higher average brokerage status scores than at the start of the year. This may be partly due to the fact that by the end of the year there are more opportunities to broker ties and for conflicts to arise than at the beginning of the year.

Turning to the main independent variable, on average, girls and boys both have more conflict nominations at the end of the year compared to the beginning of the school year (an average increase of 0.61 nominations to 3.51 nominations for girls and an

average increase of 0.49 nominations to 3.42 nominations for boys). Although boys start the year with more conflict nominations than girls, by the end of the year, girls have more conflict than boys. For information on all other variables, see Table 6.

How Conflict Affects Social Preference Status Mobility

Table 7 shows the results of ordinary least square change score regression models predicting social status mobility from wave 1 to wave 2. Net of controls and beginning levels of status and conflict, increases in conflict nominations from schoolmates over the school year are significantly associated with decreases in social preference status for girls and boys. Each additional conflict nomination a girl receives at the end of the year, relative to the beginning, is associated with a .026 decrease in the number of "spend time with" nominations she receives from schoolmates (Model 1). For boys, each additional conflict nomination is associated with a .034 decrease in the number of "spend time with" nominations from schoolmates (Model 2). More conflict nominations at the beginning of the school year is also negatively associated with status mobility for girls and boys.

Overall, receiving more conflict nominations from schoolmates is detrimental to receiving "spend time with" nominations, resulting in lower social preference status.

Results from the previous chapter suggest that regardless of gender, students who participate in the highest levels of conflict (top 10% of conflict distribution) at the beginning of the school year express having negative experiences in school, being trouble-makers, and getting into physical and nonphysical altercations more so than remaining students. Therefore, it may be that receiving an increasing number of conflict nominations throughout the school year is indicative of aggressive behavior, and as previous research suggests, aggression is negatively associated with social preference

since youth generally do not like to spend time with highly aggressive others (Prinstein and Cillessen 2003).

Some control variables have a notable positive effect on status mobility for boys and girls. Playing sports at the start and end of the school year, or just at the end of the school year, is associated with status increases. Similarly, dating at the start and end of the school year or dating just at the end of the school year, as well as using Instagram at the start and end of the year, or just at the end of the year, positively affects status mobility. Not surprisingly, having friends who come over every week (wave 1 only) is positively associated with increases in social preference status. For girls only, participating in music at the start and end of the year, and having positive experiences in school at wave 1, also lead to increases in status.

Some variables have a negative effect on status mobility. For instance, for boys and girls social preference status at the beginning of the school year is negatively associated with status mobility. It may be the case that having more status at the beginning of the year is associated with a loss of status over time because there is less room to advance in the social hierarchy when students begin the year in higher status positions. For girls only, using Facebook and Twitter at the start and end of the school year (and using Twitter at just the start of the year) is also negatively associated with social preference status. For boys only, having negative experiences in school at the start of the year is associated with decreases in social preference.

How Conflict Affects Brokerage Status Mobility

Models 1 and 2 in Table 8 test the effect of change in conflict on change in brokerage status throughout the school year for girls and boys, respectively. Sending out

more conflict nominations to schoolmates at the end of the year than at the beginning of the year is associated with increases in brokerage status for girls and for boys. Net of control variables and of status and conflict at the start of the school year, each additional conflict nomination a girl reports having with her schoolmates, is accompanied with a .0003 increase in brokerage score (Model 1). Similarly, each additional conflict nomination boys report having with their schoolmates is associated with to a .0004 increase in brokerage status throughout the school year (Model 2).

Control variables that have a significant and positive effect on brokerage status for boys and girls include: dating at the beginning and end of the school year, dating just at the end of the school year, participating in music at the start and end of the year, using Instagram at the start and end of the year, and using Instagram just at the end of the year. Having friends who come over every week (wave 1 only) also positively affects status mobility.

Some variables have a negative effect on status mobility for boys and girls. Similar to results for social preference, brokerage status at the beginning of the school year is associated with decreases in brokerage status mobility. As suggested above, there may be structural limitations to having higher levels of status at the beginning of the school year that lead to a loss of status over time. Using Twitter at the start and end of the school year, or just at the start of the year, is also negatively associated with brokerage status for boys and girls.

Some gender differences emerged. For instance, doing lots of homework at the start and end of the year positively affects status mobility for girls, while for boys doing lots of homework at just the start of the year is negatively associated with brokerage

status. For boys, appearing older than one's age at the beginning and end of the school year, as well as just at the end of the year, is associated with status gains, though the same is not true for girls. See Table 8 for remaining findings.

Overall, participation in conflict with schoolmates leads to increases in brokerage status, regardless of gender. This is in line with my proposition based on Gould (2003) that conflict may serve as an opportunity to renegotiate status positions, leading to upward status mobility. As descriptive analyses in the previous chapter suggests, students who have high brokerage status are integrated in the school in similar ways as students with high social preference status. For instance, both sets of students report having more friends over every week, playing sports, and dating compared to the rest of their peers. However, adolescents with high brokerage status are also integrated in other ways, like being involved in theatre and music clubs. Their involvement in extracurricular activities likely makes it easier for them to forge connections with others in school and to have more brokeraging power in social relations. This is supported by the evidence suggesting that involvement in music and theatre leads to increases in brokerage status. Theatre and music may also be group-spanning activities since they can bring together students from different social groups, unlike sports which often require a level of physical ability and athleticism that not all students may have.

Similarly, having more conflict relations with others, may inadvertently reflect more social integration and involvement in school life that might make it easier for students to become well-known and better connected members of their school communities. Participation in conflict may serve as a signal to other students that one seeks to be involved in the social life of the school, creating a social reality that improves

students' social status (more on this in Chapter 4). So while lots of conflict may lead to students being less well-liked, it may also improve students' status, and in particular, help them occupy more brokeraging positions in their schools.

#### Conclusion

Researchers have examined the relationship between status and aggression in schools and general patterns of social status mobility. Although there are multiple ways of measuring status, in this study I use student network data to better understand status mobility in schools. Specifically, I ask whether conflict leads to social status mobility in middle schools, and whether the relationship between conflict and status varies based on different measures of status and based on gender.

I find that participating in conflict with schoolmates is associated with a loss of social preference status but with an increase in brokerage status, regardless of gender.

Too much conflict, much like aggression, can result in students becoming less well-liked. At the same time, students who participate in lots of conflict with schoolmates can gain brokerage status. Their involvement in conflict may signal to others that these students are socially integrated in the school (which is reflected in their participation in extracurricular activities as was demonstrated in the previous chapter), making these students more visible to others in their schools and increasing their chances of occupying brokerage positions.

Interestingly, the type of social media platforms students use differentially affects status mobility. Generally, using Instagram is positively associated with status while using Twitter and Facebook (for girls only predicting social preference) leads to

decreases in status. Instagram stands out in a few ways. A key feature of this application is to share photos and videos as opposed to written content. Students, particularly those that are considered physically attractive by peers, may be more likely to use Instagram (this may explain why more girls use Instagram than boys in the sample). Given the importance of physical appearance for adolescents, sharing photos of oneself and receiving praise from one's peers likely results in status gains in ways that sharing written words, via Twitter for instance, does not. As the newest social media site of the three, using Instagram may be also be positively associated with status because it signals to others that one is socially involved in new and trendy ways.

Overall, this study contributes to understandings of the relationship between conflict and social status mobility in schools. Findings from this study inform the literature in several ways. For instance, given that previous literature has focused primarily on common measures of status in schools, like social preference and popularity, this study contributes to our understanding of the relationship between conflict and a measure of a unique kind of status in schools. Similarly, unlike previous studies that focus solely on aggressive behaviors, I find that conflicts with peers have a significant effect on status mobility in and of themselves. Unlike most other studies, I also explore the relationship between status and conflict using a large sample of students and two waves of data.

Findings from this project also have broader implications. Because adolescents are particularly concerned with status, and bullying behaviors tend to peak in middle school (Collins 2009), knowing how conflict affects status mobility is an important first step in understanding adolescent conflict more generally. While psychologists suggest

that youth who are aggressive are maladjusted, and that aggression is antisocial, this study, among others, demonstrates that the relationship between conflict, broadly defined, and status is more complex. Rather than being antisocial, participation in some conflict is unavoidable and may even be an expression of social integration in school life.

School administrators and teachers would be well-served to consider whether participation in conflict is a reflection of active participation in school life or a reflection of more serious instances of negative interpersonal behaviors. These distinctions are important in considering the types of interventions that might best benefit students. School personnel can implement conflict resolution strategies in an attempt to prevent future aggressive behaviors but if conflict with peers leads to increases in certain kinds of status measures, then teaching conflict resolution skills alone may not suffice. Ultimately, in developing and implementing conflict reduction strategies, school personnel and trained professionals need to keep status motivations at the forefront. More on this in the Conclusion chapter.

In the following chapter I continue to explore the relationship between conflict and status. In particular, I rely on theories from Gould (2002; 2003) to explore the influence of having conflict with friends vs non-friends on status mobility. Given the lack of empirical attention given to brokerage status in the school setting, I focus just on this status measure.

## CHAPTER 4: CONFLICT WITH FRIENDS AND SOCIAL STATUS MOBILITY

#### Introduction

Findings from the previous chapter suggest that conflict significantly affects status mobility in middle school. Specifically, students who participate in more conflict with schoolmates can gain brokerage social status, even at the cost of becoming less well-liked. As previously suggested, schools are an ideal setting to examine the relationship between conflict and status since they are characterized by informal social hierarchies that make it easier for students to challenge each other in the quest for status. Schools are also important sites because youth spend a lot of their time there and as a result, they offer ample opportunities for social interactions. Not surprisingly, interactions with friends are a salient part of adolescents' experiences in school (Shin 2017).

In addition to helping students develop important social skills and providing companionship, friendships can buffer students from peer harassment. Specifically, having at least one friend in school can partially help youth avoid harassment from others (Mouttapa, Valente, Gallaher, and Rohrback 2004). However, researchers have found that among adolescents, aggression amongst friends is fairly common. Further, friendships may even increase the likelihood of being the victim of future incidents of electronic aggression (Felmlee and Faris 2016). Conflicts are common among friends in part because friends interact frequently and thus there are many opportunities for disagreements to arise. Friends also generally compete for the attention and esteem of mutual friends. This competition for greater status in friendship groups can lead to instances of aggression in a group (Felmlee and Faris 2016).

The desire to achieve or maintain high levels of social status also impacts the ways friendship groups are formed. Generally, youth tend to form friendships with those who have a similar social position. For instance, they select others with similar levels of status (Shin 2017). This is especially true of high status youth who are particularly selective about their friendship choices since befriending someone too low in the social hierarchy may lead to a loss of status (Dijkstra et al. 2013). Similarly, a student's status level is in turn influenced by the status of the peers he or she hangs out with (Shin 2017).

Similarities in status ranks between friends also makes it easier for interpersonal conflict to arise. According to Gould (2003), ambiguity in status ranks "breeds" serious conflicts. In social relationships where it is clear who should outrank whom (i.e., between a boss and an employee), it is difficult to challenge "dominance arrangements." In contrast, in social relations where individuals are similar in terms of status, such as between friends, it is easier to challenge each other since the rules regarding who should be dominant, are unclear. As a result, status struggle, where one individual in the friendship challenges the other in order to exert more dominance and the other objects in order to preserve equal status (or accepts and assumes a lower status position; Gould 2002), are common in friendships (Gould 2003).

If the rules governing who should outrank whom are not easy to determine among friends given their similar status positions, then it should be less risky to challenge friends in status competitions than to challenge non-friends who may be outside of one's status league. Although there is evidence that aggression directed at higher status individuals is instrumental to status (Faris 2012), this may not be deemed appropriate in all cases. For instance, if a low-status youth challenges a high-status schoolmate, it could

signal a lack of understanding of the social norms in the school on the lower status youth's part. It is possible that aiming high only works for students who are already close to the top or those who challenge those just slightly above them in the hierarchy (such as a low-status youth challenging a mid-status youth).

Although it is not my intention to test for the effect of having conflict with a status equal versus a status unequal, I suggest that conflict with friends, whom are presumably similar in status (Shin 2017), is more conducive to status gains than challenging non-friends because it is less risky and less likely to be seen as a violation of social norms. There is also empirical support that aggression when directed towards those socially close, like friends, is instrumental to status gains in schools (Faris 2012). Therefore, in this chapter, I explore the effect of having conflict with someone one chooses to spend time with, a proxy for friendship, relative to conflict with non-friends, on social status mobility throughout the school year.

Since I am interested in comparing students who have conflict with friends to students who have conflict with others who are not friends, I limit my sample to students who have at least one conflict tie with a schoolmate at both time points. By narrowing my sample to students who have conflict with others, I am also able to explore whether conflict with schoolmates has a significant effect on status among those who indicate having conflict with others. Additionally, since much of the school-based literature has focused on social preference as a measure of status, but fewer have considered the influence of more unique network metrics, in this chapter I focus specifically on brokerage status (measured using betweenness centrality scores).

Although the relationship between conflict and status mobility is similar for boys and girls in the sample (see Chapter 3), previous work suggests that boys and girls have different friendship dynamics. For instance, compared to boys, girls have smaller friendship networks with one or a few best friends (Benenson 1990). Girls are also more likely to characterize their friendships as affectionate, intimate, and caring (Shin 2017). Some suggests that they are more emphatic toward their friends (Rose and Rudolph, 2006) and exhibit higher levels of responsiveness and harmony in their communications with each other (Dishion, Nelson, Winter, and Bullock 2004; Piehler and Dishion 2007).

Boys, on the other hand, have larger friendship networks organized around shared activities, like sports, and their friendships are characterized as less intimate than girls' (Benenson 1990; Waldrop and Halverson 1975). Boys also tend to communicate with their friends in assertive ways that emphasize dominance and are more prone to displays of masculinity, competition, and risk-taking (Agnew 2009). This emphasis on dominance in interactions may be why physical forms of aggression are more prominent among boys (Pellegrini and Archer 2005; Shin 2017) and why boys' friendships are characterized by higher levels of conflict than girls' (Hawley et al. 2007).

Ultimately, these gender norms likely make it easier for boys who challenge their friends to be seen as behaving appropriately but for girls who do the same, to be seen as acting inappropriately. Therefore, I assess the relationship between conflict and status mobility for boys and girls separately. My intention is not to test for gender differences by comparing the groups directly, but rather to examine how conflict with friends matters for these two groups of students.

## **Background**

Previous studies suggest that among adolescents, aggression towards peers is perceived and used as a strategic resource for acquiring social status through establishing dominance over others. Generally, this body of work posits that establishing dominance over others may increase one's relative standing in a group and lead to increases in status.

Faris and Felmlee (2011) argue that aggression is perceived by students to be instrumental for gaining status, and thus social status motivates the use of aggression. Others have found that among adolescents, the strategic and proactive use of aggression is associated with popularity in particular (Prinstein and Cillessen 2003). This body of research further assumes that youth are conscious of-and make strategic decisions about-who they target for dominance displays. For instance, youth who are aggressive can gain status if they challenge highly-liked students that they, the aggressors, personally dislike (Peets and Hodges 2014). Similarly, Faris (2012) finds that in schools, students gain status if they are aggressive towards high status peers, aggressive peers, or those who are socially close, such as friends.

Friendships ties in particular are important to consider when looking at the relationship between conflict and status during adolescence. In the following sections, I outline literature and theory from Gould (2003) regarding friendship ties, conflict, and status, particularly as it relates to youth.

Friendships Ties, Conflict, and Social Status

Propinquity, or small differences in physical distance, increases the probability of social associations like friendships (Blau 1977; Festinger 1950). Friendships form in settings where individuals spend a lot of time together since they offer ample opportunities for interactions and for forging deep connections (Blau 1977; Felmlee and

Faris 2016). For this reason, friendship ties are common in settings like schools where students routinely interact with the same set of individuals. During adolescence, youth start to distance themselves from parents and others adults and begin forming friendship ties with those outside of their immediate family (Felmlee and Faris 2016). Adolescents attribute greater importance to friends and they spend more time socializing with friends compared to children and adults (Giordano, Cernkovich, and Holland, 2003).

Having friends in school has its benefits. In addition to companionship, having at least one friend can partially help youth avoid harassment from others (Mouttapa et al. 2004). Ironically, aggression is also fairly common among friends. A recent qualitative study found that students indicated that victimization and bullying behaviors were frequent and accepted among close friends (Gardella, Fisher, Teurbe-Tolon, Ketner, and Nation 2019). Similarly, others have found that aggression increases the likelihood of experiencing harassment at the hands of peers. In their study, Felmlee and Faris (2016) find that slightly more than 20 percent of all cyber aggression ties occur among friends and 25 percent occur among friends of friends. The authors also find that friendships increase the likelihood of future incidents of electronic aggression among adolescents, even after controlling for a host of important variables.

Felmlee and Faris (2016) suggest that aggression may be common among friends in part because friends interact frequently and thus there are more opportunities for misunderstandings and disagreements to occur, even if they are done in a teasing manner (e.g., trash talk gone wrong). Similarly, friends know intimate information about each other, which they can use in harmful ways during disagreements. Further, friends are usually in direct competition for the attention and esteem of the same set of individuals

(Faris and Felmlee 2016). Friends typically belong to the same set of teams and clubs, and they often participate in the same kinds of activities in and outside of the school setting. Thus, friends often end up contending for status and respect within the same groups. This competition to gain or maintain status, particularly in the eyes of one's peers, can lead to instances of aggression (Faris and Felmlee 2011; Felmlee and Faris 2016).

The desire to achieve or maintain high levels of social status also plays a role in how friendship ties are formed and maintained in schools. Friendships usually form among individuals who share similar traits and characteristics (McPherson, Smith-Lovin, and Cook 2001). For instance, there is evidence that youth select others as friends who are similar in terms of status, and in levels of aggression (Dijkstra et al. 2013). An individual's status rank is, in turn, influenced by the status of those whom he or she hangs out with. Given the importance of status for adolescents, it is not surprising that youth with high levels of status are especially careful and selective about their friendship choices since they know that befriending unpopular youth may lead to loss of status (Dijkstra et al. 2013).

Similarities in status ranks between friends also makes it easier for interpersonal conflict to arise. In the following section, I outline Gould's theories regarding the role of status ambiguity in social relations and propose my own ideas about how conflict with friends impacts status mobility in middle schools.

Gould: Status Ambiguity and Interpersonal Conflict

According to Gould (2003), conflict is a feature of many social relations, and particularly those in which individuals are similarly situated in terms of status rank.

Status ambiguity in social relations "breed" conflict because when it is not clear who in a relationship should outrank whom, it is easier to challenge others for dominance. So we might expect more conflict to arise between friends than we would between a boss and an employee, or between a parent and a child, because among friends, status positions are similar and therefore more ambiguous.

Gould (2003) further suggests that when conflicts occur among friends, they do not necessarily destroy the existing relationship, but rather they reflect moments where one individual challenges the terms of the relationship in order to have more control. The other person can either accept the new terms without opposition and assume a lower status position (Gould 2002), or object the behaviors in order to maintain "stable dominance." Specifically, Gould (2003) notes that:

"If you are accustomed to an equal say in decisions, a unilateral action by a friend will offend you not only because you want an equal say now but because you want to preserve your equal status for the future. Objecting to your friend's behavior is a way of countering the shift in the friendship that acceptance of the behavior would entail" (p. 53).

Although Gould (2002; 2003) does not explore how conflict with friends affects status mobility specifically, I suggest that if challenging a friend and countering a challenge from a friend are ways of shifting the terms of the relationship, then conflict with friends may impact status mobility in schools. Challenging a friend for dominance is likely less risky and deemed more appropriate than challenging non-friends who may be outside of one's status league and as a result, may be instrumental to status gains.

There is some empirical evidence to suggest that students who challenge friends can gain status. For instance, Faris (2012) finds that among a sample of high school students, status is enhanced when adolescents are aggressive toward those who are

socially close in their networks, like friends. As previously mentioned, conflict is common amongst friends in part because friends compete for the respect and esteem of the same set of individuals (Felmlee and Faris 2016). Given this, and the fact that it is likely more appropriate and therefore easier to challenge those who are similarly situated in terms of status, like friends, I propose that,

Hypothesis 1: Conflict with friends will be associated with an increase in brokerage status throughout the school year relative to changes in brokerage status among non-friends.

A student's ability to broker ties may be impacted by his or her ability to behave in ways that are deemed appropriate and in accordance with social norms in the school. Students who have conflict with friends demonstrate that they understand the rules by challenging within their own status rank. Because they behave in socially appropriate ways, these students may become desirable actors that others want to be connected to. This in turn helps them occupy unique central positions in their school's network. On the other hand, students who challenge non-friends (and risk challenging outside of their status league), may have a harder tie occupying central positions in their networks because others may choose not to associate with them given their lack of understanding or willingness to play by the rules.

Although findings from the previous chapter reveal that the effects of conflict on status mobility are relatively the same for boys and girls, previous research suggests that boys' and girls' friendships differ in ways that might matter for their involvement in aggression and subsequently in status competitions. Below I briefly review that literature.

## How Gender Matters in Friendships

While boys and girls value similar things in friendships, such as trust, studies demonstrate that the nature and structure of friendships differs for adolescent boys and girls (Haynie, Doogan, and Soller 2014). Compared to boys, girls tend to have smaller friendship networks with only one or a few close friends. Not surprisingly, girls tend to develop more intimate relationships that are characterized by self-disclosure (Rose and Rudolph 2006; Shin 2017). For instance, they are more likely than boys to share and discuss personal and confidential information with their friends (Rose and Rudolph 2006; Waldrop and Halverson 1975). Girls also demonstrate a higher level of responsiveness and reciprocity in their communications with friends (Dishion et al. 2004) and are more likely than boys to seek support from friends (Rose and Rudolph 2006; Shin 2017).

On the other hand, boys are more likely to have large networks of friends and to organize around shared activities, like sports (Benenson 1990; Waldrop and Halverson 1975). They are less inclined to talk about intimate matters (Rose and Rudolph 2006) and are more prone to displays of masculinity, competition, and risk-taking (Agnew 2009). Boys are also more likely than girls to communicate with each other in assertive ways that emphasize dominance and power (Shin 2017). The emphasis on dominance in social relations among boys may be why physical forms of aggression are more prominent among boys and why relational forms of aggression that are less physical and more discrete (e.g., spreading rumors) are more common among girls (Pellegrini and Archer 2005; Prinstein and Cillessen 2003; Shin 2017). It may also explain why boys are more likely than girls to seek out friends who are similarly aggressive (Dijkstra et al. 2013) and

why their friendships are characterized by higher levels of conflict than girls' (Hawley et al. 2007).

Ultimately, while girls emphasize the importance of "connection-oriented goals" in friendships, boys emphasize the importance of "dominance goals" (Rose and Rudolph 2006). Given that dominance and competition are especially salient in boys' friendships, and conflict among friends is a way to challenge dominance arrangements, as Gould (2003) suggests, conflict with friends may be a stronger predictor of upward status mobility for boys compared to girls. Although girls do compete for status, and conflict with schoolmates is a positive predictor of status mobility for girls (as results from Chapter 3 indicate), when it comes to friendships, girls may be expected to act in more cooperative and prosocial ways. For instance, compared to boys, girls may be under more pressure to resolve conflicts or to just to let them go. Therefore, I propose that,

Hypothesis 2: Conflict with friends will be associated with a greater increase in brokerage status throughout the school year for boys compared to girls.

# **Research Objective**

In this chapter, I address the question of how conflict with those students one chooses to hang out with, a proxy for friendship, influences brokerage status mobility throughout the school year. In order to explore the influence of gender, I examine the relationship between conflict with friends and status for girls and boys separately. Since the goal of this chapter is to compare students who have conflict with friends to students who have conflict with those they are not friends with, I limit my sample to students who have at least one conflict tie with a schoolmate at both time points in the year.

#### Measures

Status Variable

In this chapter, like in Chapter 3, I assess brokerage status using students' betweenness centrality scores. The more times a student provides the shortest path (going through as few other students as possible) between two other students, the higher his or her betweenness centrality score. I use change in status between the two waves of data as my dependent variable. Because residuals from the models predicting brokerage status are not normally distributed, I take the square root of these centrality scores (before calculating change) to normalize the residuals. I control for status at the start of the school year in each model.

Conflict with Friends Variables

At both waves of the survey, students reported which other students at the school they "had conflict with" whether face to face, through texts or online as well as who they chose to spend time with (in person, both in and outside of school) in the last few weeks, which I use as a proxy for friendship. Using both reports of conflict students have with schoolmates and reports of whom students chose to spend time with at both waves, I created a series of dummy variables to indicate whether students had conflict with friends and/or non-friends over time. Specifically, the variables capture whether students have: conflict with at least one friend at the beginning of the school year only, conflict with at least one friend at the beginning and end of the school year, and conflict with non-friends at both waves (treated as the reference category in the models below).

Since the sample is limited to students who have at least one conflict tie at both waves, the reference category includes students who had conflict only with non-friends at

the beginning and end of the year (and no conflicts with friends at both waves).

Additionally, because I use both waves of data, the categories of conflict only at the beginning of the year or only at the end of the year capture changes in friendship conflict relations from the beginning to the end of the year.

The number of conflict ties that students have with friends is not a significant predictor of status for boys or girls, even in the broader the sample including students who do not have any conflict ties with schoolmates (Callejas and Shepherd 2020). Therefore, I created dummy variables in order to assess whether changes in friendship conflict relations throughout the school year matter, irrespective of the number of conflicts students can have.

Since challenging friends is a way to achieve "stable dominance" (Gould 2003) and conflict with friends may be seen as more appropriate than challenging non-friends (given similarities in status ranks among friends), conflict with friends specifically may be instrumental to status gains. If that is the case, the distinction between challenging a friend versus a non-friend may be particularly important. Further, going from having conflict with non-friends at the beginning of the year, to having conflict with at least one friend at the end of the year (compared to only having conflict with non-friends at both waves) may suggest that students learn whom they should challenge in status competitions (as opposed to students who only challenge non-friends who are likely outside of their status league; I elaborate on this point in the results section below). Therefore, the dummy variables here examine whether these shifts between having conflict with friends and non-friends at different points in the year matter for status.

Although students were not explicitly asked to nominate others they consider friends, the "choose to spend time with" measure used here captures who individuals pay attention to and are exposed to in their group through actively choosing to spend time with them. This taps into the concept of friendship while avoiding the common measurement issue that occurs when students are asked to nominate friends, which is that the definition of friendship is subjective and can differ from student to student (e.g., Bearman and Parigi 2004).

All models control for the influence of total number of conflict nominations at the beginning of the school year.

#### Other Variables

As in Chapter 3, I control for several variables that may serve as markers or determinants of status in middle school.

Physical Appearance. At both waves, students reported their relative age appearance by answering the following question: "People say that I look...younger than/about the same age as/older than...most students in my grade."

Activities and Dating. Using a series of questions that students checked off to indicate participation and left blank to indicate lack of participation, at both survey waves, students reported whether they participated in sports, music club, and theater club. They also reported whether they did lots of homework, dated other students at the school, and whether they use Facebook, Twitter, or Instagram. For each of these control variables, I created four sets of dummy variables to capture: no participation in either wave (reference categories), participation in both waves, participation in wave 1 but not wave 2, and participation in wave 2 but not in wave 1.

<u>Wave 1 variables.</u> Additional control variables, available at wave 1 only, were included in the models. I consider whether students say they have friends who come over every week and whether students have friends who say their house is nice (proxy for income). For each of these variables students could indicate "yes" or "no." I also control for whether students have positive or negative experiences at the start of the school year as well as involvement in physical and nonphysical altercations (see Chapter 3 for a full description of these variables).

The following control variables were accounted for but later removed from the tables of results below because they were not significant in the regression models: do lots of homework, do music, use Twitter, use Facebook, house is nice, negative experience, positive experience, and physical altercations.

## **Analytic Technique**

I use change score models to assess whether conflict with friends versus conflict with non-friends, affects brokerage status mobility throughout the school year. Models 1 and 2 in Table 10 test for this relationship for girls and boys respectively. All models include school-level fixed effects and control for conflict and status at the beginning of the school year. I limit my sample to students who have at least one conflict tie with a schoolmate at both waves (12,322 out of the 21,124 in the entire sample). After accounting for missing data on one or more of the variables in the models, the final sample consists of 10,842 students: 5,660 girls and 5,182 boys.

## **Results**

Table 9 shows basic descriptive statistics for the variables in the model for boys and girls. Similar to findings in Chapter 3, at the end of the school year girls and boys

have higher levels of brokerage status than at the beginning of the year. Turning to the main conflict variables, most students indicate not having conflict with friends (77 percent of girls and 78 percent of boys). Approximately 10 percent of students have conflict with at least one friend at the beginning of the school year, about eight percent have conflict with a friend at the end of the school year, and about five percent have conflict with a friend at the beginning and end of the school year. For more information on other variables in the model, see Table 9.

Conflict with Friends and Social Status Mobility- Girls

Model 1 in Table 10 shows results predicting brokerage status mobility for girls.

After controlling for a host of important variables, having conflict with friends at different points in the school year (at wave 1 only, at wave 2 only, or at wave 1 and wave 2), does not have a significant effect on social status mobility. These findings hold regardless of the reference group used to assess conflict with friends.

Status at the beginning of the school year is a negative predictor of status mobility. As suggested in Chapter 3, there may be structural limitations to having higher levels of status at the beginning of the school year that lead to a loss of status over time. Interestingly, number of conflict ties at the beginning of the year is a significant and negative predictor of status mobility for girls, which was not the case in the analyses done in the previous chapter where conflict at wave 1 was not a significant predictor of status for girls, or boys. This suggest that conflict at the beginning of the school year is a negative predictor of status only among girls who have at least one conflict tie with schoolmates.

Some control variables have a positive and significant effect on status mobility for girls. More specifically, dating at the beginning and the end of the school year, as well as dating just at the end of the school year, are associated with increases in brokerage status. Similarly, participating in theater at the beginning and end of the school year is a positive predictor of status. These findings provide evidence that the more socially involved students are, the greater the likelihood they will forge connections with others and become well-known, which can then lead to increases in brokerage status.

Conflict with Friends and Social Status Mobility- Boys

Results from model 2, in Table 10, suggest that boys who start the year having conflict with non-friends and then have conflict with at least one friend at the end of the school year, gain brokerage status relative to boys who only have conflict with non-friends throughout the school year. This result holds regardless of the reference group used to assess conflict with friends and before and after controlling for a host of important variables. Specifically, boys who start the year having conflict with non-friends and then end up having conflict with at least one friend by the end of the year, experience a .006 increase in brokerage status.

Similar to results for girls, status at the beginning of the school year is a significant and negative predictor of status mobility for boys. Playing sports and dating at just the beginning of the school year, are also negatively associated with status mobility. However, playing sports at the beginning and end of the school year, and dating at just the end of the school year, are positive predictors of brokerage status. It may be that boys are expected to engage in these behaviors throughout the school year, or at the

very least, to catch up as the school year unfolds. As a result, those who date and play sports at the start of the year, but do not continue doing so, lose status over time.

Boys who look older than their age and use Instagram throughout the entire school year, as well as those who participate in theater at the end of the year, (relative to those that do not look older and do not engage in these activities at either wave), also gain social status. Similar to findings from Chapter 3, having friends who come over every week is also instrumental to status gains. As previously mentioned, the more socially involved students are, on and offline, the more well-known they are and the more they are able to form connections with other students. This in turn can lead to higher levels of brokerage status.

Finally, involvement in nonphysical altercations is a positive predictor of status for boys, though not for girls. This finding is interesting in light of the research that suggests that boys are more likely to engage in physical, versus nonphysical, forms of aggression with peers. However, it is consistent with other studies that suggest that subtle forms of aggression, compared to more physical forms of aggression, are instrumental to status in schools (Prinstein and Cillessen 2003).

Though not shown here, when the number of conflict ties students have with friends is used as a predictor of status mobility, it was not substantively or statistically significant. This suggest that the distinction between having conflict with a friend or multiple friends, and having conflict with non-friends, may be more important than the actual number of conflict ties that may overlap with friendship ties.

It is plausible that at the beginning of the year, students do not yet understand who in the social hierarchy is an appropriate target for status competitions. Status hierarchies

and friendship groups may still be forming at this point. However, by the end of the year, students may realize that challenging friends as opposed to non-friends is more appropriate since in these social relations students are likely challenging status equals. Challenging appropriate targets in turn may be conducive to status gains since it is less risky than challenging someone outside of one's status league. This suggests that students may be conscious of their own and others' status positions and adapt in ways that allow them to challenge appropriate targets.

There is some evidence that individuals are conscious of their positions in status hierarchies and make informed decisions about the amount of time and attention they give to others based on where they stand (Gould 2002). Specifically, giving someone more time and attention (including negative attention) than they give to you, signals to others that you occupy a lower status position in the relationship. Because individuals typically desire reciprocation of attention, especially in friendships, they will "calibrate" their behaviors and withdraw some attention in order to maintain more equal status positions (Gould 2002).

Given this, students may be aware of each other's positions in the status hierarchy and use this information to determine who they should and should not challenge. Whether they believe that challenging friends in particular is more conducive to status gains is beyond the scope of this paper, but should be further explored. Doing so would provide researchers with a better understanding of students' motivations for engaging in potentially antisocial behaviors with friends and a sense of their subjective experience of this process. More on this in the Conclusion chapter below.

#### Conclusion

Conflict, broadly defined to include aggression, can be instrumental to status gains. Considering the impact of friendships in this relationship is important for several reasons. First, friendships are shaped by status in meaningful way (i.e. students purposely select friends who are similar in status; Dijkstra et al. 2013). Second, conflicts are common amongst friends in part because, as Gould (2003) suggests, status ambiguity amongst status equal, like friends, makes it easier for individuals to challenge each other for more dominance and status. Lastly, characteristics of friendship groups differ by gender in ways that may shape students' ability to gain status through participation in conflict with friends.

In this chapter, I examined how conflict with friends matters for brokerage status mobility among students who indicate having at least one conflict tie with a schoolmate. Findings reveal that developing a conflictual relationship with (a) friend(s) is instrumental to status, relative to challenging non-friends throughout the year, but only for boys. Going from having conflict with non-friends to having conflict with friends may be instrumental to status because students adapt in ways that allow them to challenge those close in status, which is less risky and therefore more conducive to status gains.

Given that boys have larger friendship networks that are characterized as less nurturing and intimate (Shin 2017), and given the emphasis on dominance in boys' interactions with each other (Agnew 2009), conflict with friends may only be an appropriate means to status for boys. Although girls do compete for the esteem of peers, and they can gain status when they challenge schoolmates (as results from Chapter 3 show) when it comes to friendships, girls may be expected to behave in prosocial ways

that are conducive to having stronger and more intimate relationships. Girls may also feel more pressure to resolve conflicts or to let certain dominance challenges go in order to avoid losing a close friend. This may be particularly true if intimate and personal information was exchanged, which girls are more inclined to do in their friendships compared to boys (Rose and Rudolph 2006; Waldrop and Halverson 1975). Boys on the other hand are more loosely connected to more friends (Benenson 1990) and therefore may have less to lose if they challenge a friend.

Ultimately, conflict with friends may be seen as a less appropriate mechanism for achieving status for girls than boys. In fact, although not statistically significant, having conflict with friends (at any point during the school year), is a negative predictor of status for girls. Interestingly, the number of conflicts at the beginning of the school year (included in the models as a control variable) is a significant and negative predictor of brokerage status for girls, but not for boys. This suggests that among girls number of conflict ties, whether with a friend or non-friend, at the beginning of the school year is associated with decreases in status. This provides an additional insight to that of the previous chapter where number of conflict ties with schoolmates at the beginning of the school year did not significantly predict status for girls or boys.

Research suggests that students purposely engage in aggressive behaviors in schools in order to achieve higher levels of status. Whether boys purposely challenge friends as a means to achieve status because they think it will lead to status gains, is beyond the scope of this paper, but would be important to further explore. Regardless of their intentions, these findings point to the importance of considering friendships when assessing peer conflicts and status competitions in school settings.

Conflicts between friends are bound to occur given the amount of time friends spend together. More often than not, adults might expect that students who choose to spend time together are interacting in positive and prosocial ways. However, that is not always the case. If conflicts arise and get resolved, they may be conducive to having stronger and closer friendships, but if they are not, they may result in subsequent acts of aggression. As we know from previous literature, friendship ties can increase the likelihood of experiencing future incidents of victimization at the hands of one's friends (Felmlee and Faris 2016). Therefore, rather than assume that friends do not have conflicts or that they can sort out their conflicts effectively, school personnel need to be mindful and strategic in focusing on friendship groups when implementing conflict-reduction strategies in schools.

#### **CHAPTER 5: CONCLUSION**

Summary of Relevant Literature

The drive to acquire more status is a pervasive aspect of group life. Higher social status is associated with material and nonmaterial rewards, like respect and social approval (Gould 2002; Merton 1968; Ridgeway and Correll 2004). Not surprisingly, people frequently compete to achieve or maintain higher status positions. Interpersonal conflict, a state of disagreement that arises when individuals have incompatible or opposing behaviors and views (Laursen and Pursell 2009), is another common feature of groups. Scholars have examined the relationship between conflict and status in different settings (Gould 2003; Martin 2009). Interpersonal conflict is common in part because individuals are continuously striving to have greater dominance in social relations (Gould 2003).

Interpersonal conflict can be manifest in acts of aggression or in more subtle behaviors. For instance, conflict and aggression overlap when a serious conflict between individuals escalates to a physical fight. Other times, conflicts get resolved and do not lead to aggressive behaviors. In settings like schools, where students can get in trouble for behaving in aggressive ways, students may choose to not behave aggressively even if their conflicts are not resolved. Similarly, when youth have conflict with others, like friends, they may choose to let those conflicts linger if they are perceived to not be a big deal or do not want them to strain the relationship. Ultimately, conflict is more subtle and therefore likely harder to detect, than aggression. For this reason, conflict may be more pervasive than aggression in schools. Yet much of the school-based literature has focused specifically on the effects of aggression.

Generally, the relationship between aggression and status differs depending on the type of status being measured. Peer-perceived popularity (based on peers' perceptions of one's popularity), and social preference (a measure of being well-liked) are two commonly explored measures of status in schools. Studies find that aggression is negatively associated with social preference, but positively associated with popularity (Prinstein and Cillessen 2003; Cillessen and Mayeux 2004; Sijtsema et al. 2009; Shin 2017). There is also some evidence suggesting that aggression is instrumental to status in schools when status is measured using yearbook accolades and awards (Faris 2012).

Others have examined social status in schools using a different measure: betweenness centrality, which I refer to as brokerage status. Students with high levels of brokerage status are centrally located in their networks in ways that allow them to forge connections between students without having to go through too many other students. Given their ability to broker ties, students with high brokerage status are likely highly visible members in their schools and thus well-known among their peers. Some find that brokerage status can be a source of aggression in schools (Faris and Felmlee 2011).

This body of work generally suggests that boys and girls engage in different kinds of aggressive behaviors in school. For instance, girls engage in more subtle forms of aggression (i.e., spreading rumors) whereas boys engage more frequently in physical forms of aggression (i.e. kicking or punching). There is also evidence that boys' and girls' friendship groups differ in important ways. Compared to boys, girls have more intimate friendships with a fewer number of friends (Benenson 1990) and their friendships are generally characterized as more caring, affectionate, and cooperative than that of boys' (Rose and Rudolph 2006). Boys, on the other hand, have larger friendship

networks that are generally characterized as less intimate (Benenson 1990; Waldrop and Halverson 1975). Not surprisingly, boys are less likely than girls to share and discuss personal matters with friends. Boys also tend to communicate with their friends in assertive ways that emphasize dominance and they are more prone to displays of masculinity (Agnew 2009).

Ultimately, during adolescence, aggression may help students gain status, such as popularity, even at the cost of becoming less well-liked. Boys and girls differ in the types of aggressive behaviors they engage in and in their friendship dynamics. Whether conflict, which may or may not encompass aggression, is a status mobility mechanism for boys and girls in middle school, has not been as widely explored.

### Gaps in Previous Research

While many studies have examined the relationship between aggression and social status in schools, some notable gaps remain. Much of the research has focused on popularity and social preference as indicators of status, but less attention has been given to network metrics that may tap into more unique kinds of status measures, like brokerage status (betweenness centrality) and other centrality measures. Similarly, research has generally focused on the effects of aggressive behaviors despite the fact that conflicts are more subtle and thus likely more pervasive in schools.

Absent from the literature are studies that examine how conflict with friends affects status in schools, despite evidence suggesting that conflict among friends is common. Because friends interact frequently within the same space, there are many opportunities for disagreements to arise (Blau 1977; Felmlee and Faris 2016). Friends also tend to compete for the attention and esteem of the same group of friends. This

competition for greater status in friendship groups can lead to instances of aggression (Felmlee and Faris 2016). Despite this, there is little research examining how conflict with friends affects status mobility during adolescence.

Finally, while studies have examined the relationship between aggression and social status, few have used longitudinal data with a large sample of students that allow researchers to more easily generalize findings to the larger adolescent population. Much of this empirical work is also atheoretical or it relies on theory to explain findings, but not in comprehensive ways that inform propositions.

### Research Objectives

In order to address these limitations, I explored the relationship between conflict and two measures of social status in middle school. I used data from a year-long field experiment with over 21,124 students in 56 middle schools in the state of New Jersey. Students were surveyed at the beginning of the school year in the fall of 2012 and again at the end of the school year in late spring of 2013 (see Paluck et al. 2016).

I relied on Gould's (2003) theories regarding social hierarchies and the role of conflict in social relations to inform propositions regarding how conflict affects status. According to Gould (2003), conflicts are a common feature of social relations, particularly those in which individuals are similar in terms of social status, such as between friends, because in these relations it is easier to challenge others for greater dominance. Although Gould did not test for the effect of conflict on individuals' abilities to make moves up and down the status hierarchy, I used insights from his work, and those of others, to inform my own ideas regarding how conflict affects status mobility in schools.

I began by examining the characteristics of students with high levels of status and those who have the highest amounts of conflict in middle school. I then explored how the number of conflict ties students have with schoolmates affects social status mobility as well as the effect of having conflict with friends versus non-friends. I conducted all analyses in this dissertation for boys and girls separately in order to assess how the relationship between conflict and status matters for students in these two groups.

Given that youth start to care about status as they reach adolescence (Li and Wright 2014), looking at the relationship between conflict and status attainment in middle schools is particularly important. During this time youth transition into early adolescence and start to pay increasing attention to their social standing relative to their peers (Li and Wright 2014). They also start to make choices about who they want to be friends with (Dijkstra et al. 2013). Schools are also important sites for the study of conflict and status not only because adolescents spend a lot of their time there, but because these settings are characterized by informal status hierarchies that allow students to sort out status for themselves (Faris 2012). This makes it easier for students to challenge each other for status.

Ultimately, I find that conflict functions as a status mobility mechanism in middle schools. Findings from this study help to fill gaps in the empirical research, which I discuss further below. They can also help inform school-based interventions aimed at reducing conflicts between students. This is important because conflicts, if not resolved, may lead to subsequent involvement in aggressive behaviors.

## Summary of Main Findings

My analyses began by exploring the characteristics of the different groups of students in the sample. In Chapter 2 I used a series of t-tests to examine the characteristics of students with high levels of conflict and social status in their schools in order to get a better understanding of the characteristics that distinguish such young people from their lower status peers and those with fewer conflicts.

Findings suggest that students with the highest levels of social preference and those with the highest levels of brokerage status share similar characteristics when compared to their lower status counterparts (have friends over every week, date, and play sports, among others). Yet, these measures may still be tapping into different kinds of status in schools. Top brokerage status girls and boys have more negative experiences and more often describe themselves as trouble-makers than those with less brokerage status. The same is not true of top social preference students. Ultimately, brokerage may be a more exclusive type of status given the unique positions students have to occupy in order to have high levels of this type of status measure.

Findings from the analyses comparing students with the highest amounts of conflict to all other students, reveal that similar to students with high levels of brokerage status, those with the highest amounts of conflict also have negative experiences in school and they describe themselves as trouble-makers. They are also involved in physical and nonphysical altercations. Although I cannot directly compare students with lots of conflict and those that are highly aggressive, the traits of high conflict youth suggest that these students may in fact be more aggressive than the rest of their peers. Ultimately, examining the profiles of students in these unique positions and how they are

similar or different from their peers pointed to empirically important patterns that helped inform findings regarding the relationship between conflict and status in subsequent chapters.

Findings from Chapter 3, where I examined the effect of number of conflict ties on social status mobility, demonstrate that for boys and girls in the sample, reporting more conflict at the end of the school year than at the beginning is associated with decreases in social preference status throughout the school year. This is in line with previous research that has examined the influence of aggression on this status measure (Prinstein and Cilleseen 2003; Sijtsema et al. 2009). On the other hand, having conflict with more schoolmates over the school year is associated with increases in brokerage status for boys and girls in the sample. Their involvement in conflict may signal to others that they are socially integrated in the school, which in turn can help make them more visible and increase their chances of occupying brokerage positions. Ultimately, the differential effects of conflict on these status measures further suggests that social preference and brokerage are distinct types of status measures in schools.

In Chapter 4, where I limit my sample to students who have at least one conflict tie with other students in the school, I find that going from having conflict with non-friends at the start of the year to having conflict with at least one friend by the end of the year, compared to only having conflict with non-friends at both waves, is a positive and significant predictor of status mobility for boys. It may be that at the beginning of the year, boys who challenge non-friends do not yet understand who in the social hierarchy is an appropriate target, but by the end of the year, they adapt and challenge friends, whom are similar in status. Doing so may be instrumental to status in ways that challenging non-

friends is not because there is less risk involved in challenging those who are similarly ranked in the hierarchy (since the rules regarding who should outrank whom are not clear; Gould 2003)

These findings, coupled with those from previous studies that suggest that boys have larger friendship networks and that they are more prone to displays of dominance and competition (Rose and Rudolph 2006), may explain why conflict with friends increases status for boys but not girls. Boys can more easily display dominance without it being considered inappropriate and they are likely under less pressure to preserve friendships since they have more friends, on average. Girls on the other hand, are generally more intimately connected with fewer friends. As a result, girls may feel more pressure to resolve conflicts or to let them go for fear of losing a close friend or of having intimate information exposed. Because girls' friendship are also characterized as more caring, nurturing and cooperative (Shin 2017), having conflict with a friend may not be seen as an appropriate means for status attainment for girls. In fact, after narrowing the sample to students who have at least one conflict tie, results suggest that having conflict with friends at any point in the year, does not lead to increases in status for girls.

Main Takeaways from Findings

In this dissertation I set out to explore whether conflict functions as a status mobility mechanism in schools. Although participation in more conflict may make individuals less well-liked over time, it may also help them occupy unique central positions in their networks. Specifically, participation in conflict may signal to others that one is socially involved in school life. This in turn helps students become more well-

known and puts them in a better position to broker ties with others in their network (Callejas and Shepherd 2020).

Additionally, going from having conflict with non-friends only, to having conflict with friends, is an appropriate strategy for status attainment for males. Rather than signaling to others that one is socially involved, going from challenging non-friends to challenging friends reflects that one understands social norms regarding whom one ought to challenge. Ultimately, those who understand the rules, and act accordingly, can gain social status. This is not to suggest that students who "level up" and challenge those above them in the hierarchy cannot "win," but rather that there is less risk of failing when one competes with those within one's own status rank, like friends.

Students who demonstrate an understanding of these norms, and behave as such, may become more desirable and visible actors in their networks, which may in turn help them occupy unique central positions. The same is not true for female students. It's possible that challenging friends is not instrumental to status for girls because it is seen as a violation of social norms regarding how girls' friendships should be (i.e., cooperative, nurturing, responsive, empathetic; Rose and Rudolph 2006).

Ultimately, conflict, especially with appropriate targets, signals participation in the school's social life in ways that are aligned with social norms. This in turn, yields status rewards. Below I outline the specific contributions these findings have for the literature and practical implications for schools.

Contributions to Research and Future Directions

I use a large and diverse sample of students, and Gould's (2002; 2003) theories of status and interpersonal conflict, to articulate tests of the relationship between conflict

and social status mobility in middle schools. Findings from this study contribute to the literature in several ways.

More specifically, in this dissertation I clarify the meaning—and expand our knowledge—of conflict in the school setting. Findings from my analyses suggest that conflict and aggression may be tapping into similar processes since students with a lot of conflict say they are trouble makers and have higher means of physical and nonphysical altercations relative to other students. Similarly, the effect of conflict with schoolmates on social preference status mobility is similar to that between aggression and social preference as outlined in previous research. However, because the data do not allow me to distinguish cases in which interpersonal conflict escalates to aggression, or cases in which conflict exists but is ignored or gets resolved, I cannot directly compare highly aggressive youth to those with many conflicts. I am also unable to examine the independent effect of conflict with schoolmates on status mobility in schools.

It is possible that when students took the survey they were thinking specifically about instances of aggression, leading to the results noted above. However, it is also plausible that conflict and aggression affect status similarly in schools. Future work would benefit from asking students to consider conflict and aggression, and instances where the two are distinct and instances where they overlap. In a study that can parse out these two concepts, it would be useful to see how conflict that does not escalate to aggression, versus conflict that does escalate to aggression, matters for status mobility.

Conflict in social relations is not unusual and bound to occur, especially among friends given how much time they spend with each other. Conflicts do not always have to be problematic. If conflicts occur and individuals are able to resolve them, it can reduce

tension and hostility that allow for better for future interactions (Simmel 1922). However, when conflicts are not resolved, they have the potential to rupture relationships or may escalate and lead to antisocial behaviors, like aggression. Since having conflict with more schoolmates generally, and developing conflictual relationships with friends specifically, can lead to status increases, youth who understand this may be purposely challenging others as a means to gain status.

Further, they may be making strategic decisions about who to challenge in the quest for status. For instance, at the beginning of the year boys who challenge non-friends may not yet understand who in the social hierarchy is an appropriate target or not. By the end of the school year, they may realize that challenging friends as opposed to non-friends, yields status rewards. If students perceive conflict to be instrumental to status, and purposely challenge specific others as a result, there are serious implications that follow for school-based personnel and for the types of interventions that are best suited to address this concern (more on this in the Implications section below).

Ultimately, we would benefit from more extensive research that can assess whether students believe conflict is instrumental to status and if that plays a role in students' decisions to engage in conflict with others, particularly friends. Similarly, future work would benefit from exploring whether status equivalence or differences between students, matters for the relationship between conflict and status. Although friendships are typically formed between those of similar status levels (Shin 2017), I do not examine how the status positions of those involved in conflict with friends matters. Doing so may yield empirically important findings that allow for a more direct test of Gould's theory.

Similarly, more research is needed to understand different status measures in schools. While there are various ways of thinking about and measuring status, how to best measure status in schools is not yet settled. In this study, I rely on two network metrics of status: social preference and brokerage status. While students who occupy top social preference and top brokerage status positions are similar in many ways, these measures are still tapping into different types of status in schools. This is particularly evident in Chapter 3, where I find that the effect of conflict on status differs between these two measures. Results from these analyses are helpful in understanding similarities and differences between youth who possess high levels of these status measures. Ultimately, I add to our understanding of brokerage status, which remains underexplored in the school-based literature.

While these findings help to clarify the meaning –and expand our knowledge– of these status measures, and particularly of brokerage status, the question of how to best measure status in schools still remains. Social preference and brokerage status (and peer-perceived popularity) are just some of several ways of measuring status in schools. Researchers who use student network data to measure status have used other network centrality measures, like proximity prestige, which is a function of both how many peers nominate an individual and how close in the network those two individuals are (Andrews et al. 2017). Others have looked at social cohesion and clique structures in classroom networks (Van den Bos, Crone, Meuwese, and Güroğlu 2018). Researchers have also used non-network measures of status, such as accolades and awards from yearbook data (Faris 2012). Therefore, more research is needed to understand how these status measures

compare to each other, and whether some are more appropriate than others in school settings.

In order to understand which status measure(s) might be most appropriate for a particular school, it is important to consider how contextual factors, such as a school's culture and climate might matter. Imagine two schools: one with a strong football culture where physical competition and masculinity are valued and another that is academically driven where students compete with each other for better grades and academic recognitions (i.e. honor roll, advanced placement course, number of college admissions). What status looks like, and consequently how it ought to be measured, will likely differ in these two settings. Moreover, the extent to which conflict can lead to status gains might depend on the culture of the school. Conflict may be an appropriate means to status in the former school, where dominance and aggression are likely more prominent, but not in the latter.

Regular patterns of conflict can create an organizational memory that shapes subsequent behaviors (Papachristos, Hureau, and Braga 2013). There is empirical evidence that suggests that schools characterized by student attitudes that endorse aggressive behaviors, see higher levels of student aggression (Huang et al. 2015). In addition to having more instances of aggression, in schools where students perceive the school climate is tolerant of bullying, students are less likely to seek help when victimized (Williams and Cornell 2006). Therefore, it would be important to examine how a school's "culture of conflict" may matter for the relationship between conflict and status.

Finally, more research is needed to explore the issue of causality when examining this relationship in schools (and in other settings). Although I focus on the literature that examines the effects of aggression on status given the purposes of my study, others have found that status can significantly affect future involvement in aggression behaviors (Faris and Felemlee 2011). The relationship between conflict and status is likely bidirectional in nature such that conflict affects status and status affects conflict. Conflict may lead to increases or decreases in status and an individuals' new status positions may in turn affect his or her decision to engage in conflict. For instance, if a student succeeds in securing a top status position, he or she may no longer need to challenge others. Faris and Felmlee (2011) find status elites are secured by their high status and have less use for aggression than students in mid-status positions. Ultimately, it is not my intention to assess which direction of association has a greater impact on the other. Rather, I rely on theories from Gould (2003) and findings from past research, to explore the effect of conflict on status mobility, while recognizing that the two are likely always influencing each other.

### Broader Implications for Schools

In addition to having implications for research, findings from this dissertation, particularly the general finding that conflict with schoolmates can lead to status gains, has broader implications for school personnel. Psychologists often suggest that students who frequently engage in aggression and bullying behaviors may be maladjusted, come from troubled homes or lack conflict-resolution skills (Gould 2003). However, because adolescents care about status, and conflict can lead to increases in status, school-based interventions need to be mindful of status motivations when addressing conflicts between

students. For instance, teaching students conflict resolutions skills is a good first step, but it may not be enough if students understand that they can gain status by engaging in conflict. For some, the opportunity to gain status may be more enticing than resolving conflicts. Even if students do not purposely engage in conflict to compete for status, the fact that conflict is positively associated with status, suggests the need to keep status at the forefront when developing and implementing interventions.

School personnel would benefit from better understanding what status means to students in their particular schools. Additionally, they should try to understand what students believe helps them achieve higher levels of status. This can be done through focus groups with student leaders or through assignments or questionnaires that allow students to expand on their definitions of status and mechanism for increasing it. This can then be compared to how researchers in the field have measured status in school settings. If conflict is perceived by students as a means to achieving status, then it might be important and necessary to shift the culture in the school so that students can still compete for status but in more prosocial ways.

A successful example of a similar approach can be seen in schools that participated in the Roots program (from which data for this dissertation are derived). As part of the experimental part of the program, influential students, who had ties to many other students, were selected and assisted in becoming change-makers in their schools. Specifically, these students helped to spread anti-conflict messages and as such, helped to shift norms regarding conflict in their schools (Paluck et al. 2016). Given that conflict can increase status, a similar approach can be taken to understand, and in turn, shift norms

regarding what students see as appropriate mechanisms for achieving or maintaining high levels of social status.

While I do not examine how school-level factors, like school culture, influence the relationship between conflict and status, I do consider the importance of another contextual factor that theory and research suggest is important: friendship ties.

Specifically, I explore how conflict with friends matters for the relationship between conflict and brokerage status mobility. Since conflict with friends can lead to status gains, interventions should further focus their efforts on friendship groups, particularly among boys. We might assume that students get in fights with those they dislike (such as those they deem enemies), but these findings suggest that just as much attention, if not more, should be paid to understanding and resolving conflict between friends and to recognizing how conflict nonetheless relates to status.

Finally, future work should consider the impact conflict has on status for students who do not identify as either male or female. Though the percentage of students who identify with a non-binary gender category is relatively small (approximately 2 percent in 2017 according to the Youth Risk Behavior Survey Data Summary & Trends Report), there are likely more students who identify as non-binary, but choose not to disclose that information, even in anonymous surveys. Similarly, more attention needs to be paid to LGBTQ youth given their experiences in the school setting. Felmlee and Faris (2016) find that rates of cyber aggression are four times higher for LGBTQ youth compared to other students. These students are also more likely to experience physical and nonphysical forms of harassment in the school setting (Youth Risk Behavior Survey Data Summary & Trends Report 2017) Therefore, it is important that researchers

systematically explore the experiences of students with different identities, particularly when examining the relationship between conflict and status since students from marginalized identify groups may be particularly impacted by the findings.

### Conclusion

These findings provide insight into the nature of the relationship between conflict and status in schools. Ultimately, conflict, especially with appropriate targets signals participation in the school's social life in ways that are aligned with social norms and conducive to status rewards. It is possible that the processes outlined here work similarly in other settings characterized by informal status hierarchies. For instance there is some evidence that in gangs, status may be based on willingness and ability to fight and that spatial proximity, along with previous history of conflict, drives aggressive behaviors (Papachristos et al. 2013). Similar processes may even occur in the workplace among coworkers in similar positions. It is important that research continues to explore how these results, and those of other researchers, matter in schools and across different settings where conflict may function as a status mobility mechanism.

**Table 1. Descriptive Statistics for all Students in the Sample** 

	<u>Girls</u>				Boys			
	Mean	Std. Dev.	Min	Max	Mean	Std. Dev.	Min	Max
Status Measures								_
Social preference	7.86	4.07	0	34	7.62	4.66	0	35
Brokerage	.00661	0.01	0	0.11	.00666	0.01	0	0.10
Conflict Measure								
Overall Conflict	2.87	2.83	0	35	2.90	3.14	0	41
Background Characteristics								
Age	4546.86	375.80	3555	5944	4573.11	383.47	3502	5974
White	0.66	0.47	0	1	0.66	0.47	0	1
Black	0.09	0.29	0	1	0.09	0.29	0	1
Hispanic	0.20	0.40	0	1	0.18	0.38	0	1
Asian	0.06	0.24	0	1	0.06	0.23	0	1
Other	0.12	0.33	0	1	0.12	0.32	0	1
Younger siblings	0.55	0.50	0	1	0.55	0.50	0	1
Older siblings	0.62	0.49	0	1	0.61	0.49	0	1
No siblings	0.07	0.26	0	1	0.07	0.25	0	1
Speak only English at home	0.63	0.48	0	1	0.63	0.48	0	1
Mother went to college	0.73	0.45	0	1	0.75	0.43	0	1
Has college plans	0.89	0.31	0	1	0.82	0.38	0	1
Friends say house is nice	0.61	0.49	0	1	0.56	0.50	0	1
Friends come over every week	0.54	0.50	0	1	0.54	0.50	0	1
Moved in last few years	0.17	0.38	0	1	0.18	0.38	0	1

Activities in and out of School								
Plays sports	0.72	0.45	0	1	0.82	0.39	0	1
Dating people at school	0.20	0.40	0	1	0.23	0.42	0	1
Read books for fun	0.42	0.49	0	1	0.25	0.43	0	1
Does Music	0.44	0.50	0	1	0.27	0.44	0	1
Does Theater	0.17	0.38	0	1	0.43	0.20	0	1
Does lots of homework	0.50	0.50	0	1	0.37	0.48	0	1
Use Facebook	0.47	0.50	0	1	0.48	0.50	0	1
Use Myspace	0.03	0.18	0	1	0.04	0.19	0	1
Use Twitter	0.28	0.45	0	1	0.21	0.41	0	1
Use Tumblr	0.21	0.41	0	1	0.07	0.25	0	1
Use Instagram	0.52	0.50	0	1	0.30	0.46	0	1
Experiences/Perception in School								
Positive Experiences	2.57	1.01	0	4	2.03	1.29	0	78
Negative Experiences	0.81	1.35	0	9	0.81	1.37	0	9
Feel I belong	0.78	0.41	0	1	0.84	0.37	0	1
Have to be mean to survive	0.20	0.40	0	1	0.21	0.41	0	1
Altercations in School								
Physical	0.02	0.21	0	5	0.09	0.40	0	6
Nonphysical	0.01	0.13	0	3	0.03	0.23	0	5
Students' Perceptions of Themselves	at W2							
Am popular	0.23	0.42	0	1	0.34	0.47	0	1
Am well dressed	0.50	0.50	0	1	0.33	0.47	0	1
Am leader	0.34	0.47	0	1	0.38	0.49	0	1
Am outgoing	0.54	0.50	0	1	0.32	0.47	0	1
Am respected	0.44	0.50	0	1	0.45	0.50	0	1

Am good at sports	0.51	0.50	0	1	0.67	0.47	0	1
Am troublemaker	0.09	0.29	0	1	0.15	0.36	0	1
Am tough	0.32	0.47	0	1	0.40	0.49	0	1
Am nerdy	0.16	0.37	0	1	0.13	0.34	0	1
Am staying	0.44	0.50	0	1	0.37	0.48	0	1
Am fun	0.87	0.33	0	1	0.84	0.36	0	1
Am nice	0.78	0.41	0	1	0.67	0.47	0	1
Am funny	0.74	0.44	0	1	0.71	0.45	0	1

Note: Sample size for girls ranges from 9,395 to 10,456. Sample size for boys ranges from 9,674 to 10,668. The variable with the greatest number of missing cases is "nonphysical altercation" for girls and boys. Because age is self-reported, students could have written the wrong birthdate (either by mistake or on purpose). A few obvious outliers were removed (i.e. age 5 and age 19). The range for age above may contain a few additional outliers but was left as is in order to not remove students who may have started school early or gotten retained.

Table 2. T-tests Comparing High Brokerage Status Students (top 10%) to Remaining Schoolmates

	<u>Girls</u>			<u>Boys</u>		
	High Brokerage	Remaini Studen	_	High Brokerage	Remain Studen	_
Overall Conflict	3.41	2.81	***	3.47	2.83	***
White	0.61	0.67	***	0.62	0.67	**
Hispanic	0.28	0.19	***	0.24	0.17	***
Older sibling	0.65	0.62	*	-	-	
English spoken at home	0.58	0.64	***	0.58	0.63	***
Mom went to college	-	-		0.72	0.75	*
Has college plans	-	-		0.85	0.82	*
House is nice Friends come over every	0.66	0.60	***	0.65	0.54	***
week	0.61	0.53	***	0.62	0.53	***
Plays sports	0.80	0.71	***	0.89	0.81	***
Dating	0.29	0.19	***	0.34	0.22	***
Reads books for fun	2.73	2.55	***	0.21	0.26	***
Use Facebook	0.53	0.46	***	0.57	0.47	***
Use Twitter	0.31	0.28	*	0.26	0.20	***
Use Instagram	0.58	0.52	***	0.41	0.28	***
Positive experience	-	-		2.33	2.00	***
Negative experience	1.04	0.79	***	0.99	0.78	***
Does theatre	0.20	0.17	*	0.06	0.04	**
Does Music	0.50	0.43	***	0.30	0.27	*

Am popular	0.31	0.22	***	0.44	0.32	***
Am well dressed	-	-		0.39	0.32	***
Am a leader	0.41	0.33	***	0.47	0.37	***
Am going out	0.59	0.54	***	0.37	0.32	**
Am respected	0.49	0.44	**	0.49	0.44	*
Am good at sports	0.58	0.50	***	0.76	0.65	***
Am trouble maker	0.11	0.09	*	0.18	0.15	*
Am tough	0.38	0.31	***	0.44	0.40	*
Am staying out of conflict	0.41	0.44	*	-	-	
Am fun	-	-		0.88	0.84	**
Am nice	0.75	0.78	*	-	-	
Am funny	0.78	0.73	**	0.79	0.70	***

Note: \*= statistically significant p<0.05; \*\* = significant p<0.01; \*\*\*= significant p<0.001.

Table 3. T-tests Comparing High Social Preference Status Students (top 10%) to Remaining Schoolmates

	<u>Girls</u>			<u>I</u>	<u>Boys</u>	
	High Social Preference	Remaining Students		High Social Preference	Remaining Students	
Overall conflict	3.51	2.78	***	3.16	2.85	***
Age	4611.80	4532.43	***	4634.87	4562.31	***
White	0.73	0.65	***	0.71	0.66	***
Black	0.08	0.10	*	-	-	
Asian	0.03	0.07	***	0.03	0.06	***
Other	0.09	0.13	***	0.08	0.12	***
Younger sibling	0.51	0.55	**	0.51	0.55	**
Older sibling	0.68	0.61	***	0.68	0.60	***
Has college plans	0.92	0.88	***	0.90	0.81	***
House is nice	0.68	0.59	***	0.67	0.54	***
Friends come over every week	0.72	0.52	***	0.74	0.50	***
Plays sports	0.72	0.32	***	0.74	0.30	***
Dating	0.83	0.70	***	0.45	0.79	***
Reads books for fun	0.40	0.17	***	0.43	0.20	***
Use Facebook	0.57	0.43	***	0.60	0.27	***
Use Twitter	0.38	0.40	***	0.29	0.40	***
	0.38	0.27	***	0.52	0.19	***
Use Instagram	2.89	2.52	***	2.39	1.97	***
Positive experience	1.02	0.78	***	2.39	1.97	
Negative experience	0.40		**	0.22	0.28	***
Does music	0.40	0.44	4. 4.	0.23		**
Feel I belong Have to be mean to	-	-		3.54	4.84	4-4
survive	-	-		2.90	4.25	*

I am popular	0.41	0.21	**	0.57	0.30	***
I am well known	1.08	0.70	**	-	-	
I am well dressed	0.59	0.49	***	0.45	0.30	***
I am a leader	0.44	0.33	**	0.56	0.35	***
I am outgoing	0.69	0.52	***	0.45	0.30	***
Am respected	0.51	0.43	***	0.57	0.43	***
Am good at sports	0.64	0.49	***	0.86	0.63	***
Am trouble maker	-	-		0.20	0.14	***
Am tough	0.36	0.31	***	0.52	0.38	***
Am nerdy	0.13	0.17	**	0.09	0.14	***
Am staying out of						
conflict	-	-		0.34	0.37	*
Am fun	0.91	0.87	***	0.92	0.83	***
Am nice	-	-		0.71	0.66	***
Am funny	0.80	0.73	***	0.83	0.69	***

Note: \*= statistically significant p<0.05; \*\* = significant p<0.01; \*\*\*= significant p<0.001.

Table 4. T-tests Comparing High Conflict Students (top 10%) to Remaining Schoolmates

	Girl	<u>S</u>		:	<u>Boys</u>	
	High Conflict	Remain Studer		High Conflict	Remaining Students	
Social Preference	8.65	7.77	***	-		
Brokerage Status	.0078	.0064	***	.0081	.0064	***
White	0.70	0.66	**	-	-	
Black	0.12	0.09	**	0.13	0.09	***
Asian	0.03	0.06	***	0.04	0.06	**
Younger sibling	0.51	0.55	*	-	-	
Older sibling	0.67	0.62	**	-	-	
English spoken at home	0.69	0.63	***	-	-	
Has college plans	0.85	0.89	***	-	-	
House is nice	-	-		0.59	0.55	*
Friends come over every week	0.64	0.53	***	0.59	0.53	**
Plays sports	0.76	0.71	**	0.85	0.81	**
Dating	0.40	0.18	***	0.37	0.22	***
Reads books for fun	0.32	0.43	***	0.23	0.26	*
Use Facebook	0.57	0.46	***	0.61	0.47	***
Use Twitter	0.39	0.27	***	0.31	0.20	***
Use Instagram	0.65	0.51	***	0.42	0.28	***
Positive experience	-	-		2.16	2.02	***
Negative experience	1.74	0.71	***	1.57	0.72	***
Does music	-	-		0.30	0.72	*
Does theatre	0.22	0.17	***			
Does lots of homework	-	-		0.34	0.38	*

Physical altercation	0.07	0.02	***	0.28	0.07	***
Nonphysical altercation	0.06	0.01	***	0.11	0.02	***
Am popular	0.39	0.21	***	0.40	0.33	***
Am well dressed	0.59	0.49	***	0.38	0.32	***
Am a leader	0.42	0.33	***	0.43	0.38	**
Am outgoing	0.64	0.53	***	0.39	0.31	***
Am respected	-	-		0.42	0.45	*
Am good at sports	0.56	0.50	***	0.72	0.66	***
Am trouble maker	0.19	0.08	***	0.27	0.14	***
Am tough	0.44	0.31	***	0.49	0.39	***
Am nerdy	0.14	0.17	**	-	-	
Am staying out of conflict	0.26	0.46	***	0.22	0.38	***
Am fun	0.91	0.87	***	0.87	0.84	*
Am nice	0.72	0.79	***	0.60	0.68	***
Am funny	0.79	0.73		-	-	

Note: \*= statistically significant p<0.05; \*\* = significant p<0.01; \*\*\*= significant p<0.001.

Table 5. Summary: Variables where High Status and High Conflict Youth have Greater Means than Remaining Schoolmates

Top Brokerage Status	Top Social Preference	Top Overall Conflict
Friends come over every week	Friends come over every week	Friends come over every week
Plays sports	Plays sports	Plays sports
Dating	Dating	Dating
Use Facebook	Use Facebook	Use Facebook
Use Twitter	Use Twitter	Use Twitter
Use Instagram	Use Instagram	Use Instagram
I am popular	I am popular	I am popular
I am a leader	I am a leader	I am a leader
I am outgoing	I am outgoing	I am outgoing
I am good at sports	I am good at sports	I am good at sports
I am tough	I am tough	I am tough
Overall conflict	Overall Conflict	
House is nice	House is nice	-
I am funny	I am funny	-
I am respected	I am respected	-
Negative experience	-	Negative experience
I am trouble maker	-	I am trouble maker
-	I am fun	I am fun
-	I am well dressed	I am well dressed
Does theatre	Age	Brokerage
Does music	Has college plans	Black
Hispanic	White	Physical altercation
_	Positive experience	Nonphysical altercation

Table 6. Descriptive Statistics for all Variables in the Models

		<u>Girls N=8,947</u>				Boys	s N=8,289	
	Mean	Std. Dev.	Min	Max	Mean	Std. Dev.	Min	Max
Status Variables								
Social preference W1	7.961	(4.07)	0	34	7.795	(4.68)	0	35
Social preference W2	8.102	(3.97)	0	32	8.075	(4.63)	0	32
Social preference change score	0.140	(3.46)	-14	16	0.280	(3.58)	-23	16
Brokerage status W1	.0067	(0.01)	0	0.096	.0069	(0.01)	0	0.100
Brokerage status W2	.0068	(0.01)	0	0.107	.0071	(0.01)	0	0.111
Brokerage status change score	0.001	(0.04)	-0.177	0.226	0.001	(0.04)	-0.212	0.203
Conflict Variables								
Conflict W1	2.891	(2.86)	0	35	2.929	(3.18)	0	41
Conflict W2	3.505	(3.37)	0	43	3.415	(3.60)	0	38
Conflict change score	0.613	(2.89)	-12	30	0.487	(2.99)	-18	23
Control Variables Wave 1 and 2								
Appear older W1and W2	0.177	(0.38)	0	1	0.124	(0.33)	0	1
Appear older W1	0.165	(0.37)	0	1	0.157	(0.36)	0	1
Appear older W2	0.206	(0.40)	0	1	0.189	(0.39)	0	1
Appear older neither wave	0.452	(0.50)	0	1	0.530	(0.50)	0	1
Does lots of homework W1and W2	0.315	(0.46)	0	1	0.211	(0.41)	0	1
Does lots of homework W1	0.188	(0.39)	0	1	0.176	(0.38)	0	1
Does lots of homework W2	0.133	(0.34)	0	1	0.137	(0.34)	0	1
Does lots of homework neither wave	0.363	(0.48)	0	1	0.476	(0.50)	0	1

Plays sports W1 and W2	0.177	(0.38)	0	1	0.256	(0.44)	0	1
Plays sports W1	0.080	(0.27)	0	1	0.100	(0.30)	0	1
Plays sports W2	0.092	(0.29)	0	1	0.124	(0.33)	0	1
Plays sports neither wave	0.651	(0.48)	0	1	0.520	(0.50)	0	1
Dating W1 and W2	0.141	(0.35)	0	1	0.175	(0.38)	0	1
Dating W1	0.067	(0.25)	0	1	0.072	(0.26)	0	1
Dating W2	0.107	(0.31)	0	1	0.128	(0.33)	0	1
Dating neither wave	0.685	(0.46)	0	1	0.625	(0.48)	0	1
Does music W1 and W2	0.342	(0.47)	0	1	0.201	(0.40)	0	1
Does music W1	0.095	(0.29)	0	1	0.074	(0.26)	0	1
Does music W2	0.132	(0.34)	0	1	0.120	(0.32)	0	1
Does music neither wave	0.432	(0.50)	0	1	0.605	(0.49)	0	1
Does theater W1 and W2	0.110	(0.31)	0	1	0.026	(0.16)	0	1
Does theater W1	0.068	(0.25)	0	1	0.019	(0.14)	0	1
Does theater W2	0.046	(0.21)	0	1	0.021	(0.14)	0	1
Does theater neither wave	0.777	(0.42)	0	1	0.934	(0.25)	0	1
Facebook W1 and W2	0.416	(0.49)	0	1	0.431	(0.50)	0	1
Facebook W1	0.067	(0.25)	0	1	0.067	(0.25)	0	1
Facebook W2	0.058	(0.23)	0	1	0.076	(0.27)	0	1
Facebook neither	0.459	(0.50)	0	1	0.425	(0.49)	0	1
Twitter W1 and W2	0.241	(0.43)	0	1	0.165	(0.37)	0	1
Twitter W1	0.051	(0.22)	0	1	0.050	(0.22)	0	1
Twitter W2	0.146	(0.35)	0	1	0.150	(0.36)	0	1
Twitter neither	0.562	(0.50)	0	1	0.636	(0.48)	0	1
Instagram W1 and W2	0.517	(0.50)	0	1	0.292	(0.45)	0	1
Instagram W1	0.018	(0.13)	0	1	0.020	(0.14)	0	1
Instagram W2	0.234	(0.42)	0	1	0.293	(0.45)	0	1

Instagram neither	0.231	(0.42)	0	1	0.396	(0.49)	0	1
Control Variables Wave 1 Only								
Friends come over weekly	0.554	(0.50)	0	1	0.559	(0.50)	0	1
House is nice	0.618	(0.49)	0	1	0.575	(0.49)	0	1
Negative experience	0.823	(1.36)	0	9	0.814	(1.37)	0	9
Positive experience	2.583	(1.01)	0	4	2.046	(1.04)	0	4

**Table 7. Change Score Models Predicting Social Preference Status Mobility** 

	Social Preference Status									
	<u>N</u>	Model 1 Gir	<u>ls</u>	$\underline{\mathbf{N}}$	Model 2 Boy	<u>'S</u>				
	b	s.e	Sig	b	s.e	Sig				
Main Variables										
Conflict Change Score	-0.026	(0.01)	*	-0.034	(0.01)	**				
Conflict W1	-0.086	(0.01)	***	-0.107	(0.01)	***				
Social preference W1	-0.423	(0.01)	***	-0.355	(0.01)	***				
Control Variables Wave 1 and 2										
Plays sports W1 and W2	0.171	(0.09)	*	0.260	(0.09)	**				
Plays sports W1	-0.089	(0.12)		0.007	(0.12)					
Plays sports W2	0.395	(0.11)	***	0.326	(0.11)	**				
Dating W1 and W2	0.727	(0.11)	***	0.488	(0.11)	***				
Dating W1	0.153	(0.14)		-0.143	(0.14)					
Dating W2	1.063	(0.11)	***	0.854	(0.11)	***				
Does music W1 and W2	0.173	(0.08)	*	0.060	(0.09)					
Does music W1	-0.075	(0.12)		-0.119	(0.14)					
Does music W2	0.030	(0.10)		-0.105	(0.11)					
Use Facebook W1 and W2	-0.249	(0.08)	***	-0.033	(0.09)					
Use Facebook W1	0.017	(0.14)		0.153	(0.15)					
Use Facebook W2	-0.040	(0.14)		0.100	(0.14)					
Use Twitter W1 and W2	-0.417	(0.09)	***	-0.162	(0.12)					

Use Twitter W1	-0.286	(0.16)	*	-0.099	(0.17)	
Use Twitter W2	-0.018	(0.10)		-0.049	(0.11)	
Use Instagram W1 and W2	0.701	(0.09)	***	0.991	(0.11)	***
Use Instagram W1	0.125	(0.25)		0.319	(0.26)	
Use Instagram W2	0.577	(0.10)	***	0.588	(0.09)	***
Control Variables Wave 1 Only						
Friends come over weekly W1	0.129	(0.07)	*	0.242	(0.08)	***
Negative experience	0.016	(0.03)		-0.061	(0.03)	*
Positive experience	0.089	(0.03)	**	0.033	(0.04)	
Constant	2.376	(0.21)	***	2.220	(0.24)	***
N	8,9	947		8,2	.89	
Adjusted R Square	0.2	237		0.1	93	

Note: \*= statistically significant p<0.05; \*\* = significant p<0.01; \*\*\*= significant p<0.001 at one-tailed test. The following control variables were removed because they were not significant in either model: Appear older, does lots of homework, does theatre, house is nice, physical altercation, and nonphysical altercation.

**Table 8. Change Score Models Predicting Brokerage Status Mobility** 

		Brokerage Status									
	Model 1 Girls			<u>M</u>	odel 2 Bo	<u>ys</u>					
	b	s.e	Sig	b	s.e	Sig					
Main Variables											
Conflict Change Score	.0003	(0.00)	*	.0004	(0.00)	**					
Conflict W1	.0001	(0.00)		0.000	(0.00)						
Brokerage status W1	-3.043	(0.05)	***	-2.916	(0.06)	***					
Control Variables Wave 1 and 2											
Appears older W1 and W2	0.001	(0.00)		0.003	(0.00)	*					
Appears older W1	0.001	(0.00)		0.002	(0.00)						
Appears older W2	0.001	(0.00)		0.003	(0.00)	**					
Does lots of homework W1 and W2	0.003	(0.00)	**	-0.001	(0.00)						
Does lots of homework W1	0.002	(0.00)		-0.002	(0.00)	*					
Does lots of homework W2	0.001	(0.00)		-0.001	(0.00)						
Plays sports W1 and W2	0.001	(0.00)		0.001	(0.00)						
Plays sports W1	-0.002	(0.00)		-0.004	(0.00)	**					
Plays sports W2	0.001	(0.00)		0.000	(0.00)						
Dating W1 and W2	0.007	(0.00)	***	0.003	(0.00)	***					
Dating W1	0.002	(0.00)		-0.003	(0.00)	*					
Dating W2	0.009	(0.00)	***	0.005	(0.00)	***					

Does music W1 and W2	0.003	(0.00)	***	0.002	(0.00)	*
Does music W1	-0.001	(0.00)		0.000	(0.00)	
Does music W2	0.001	(0.00)		0.003	(0.00)	**
Does theater W1 and W2	0.002	(0.00)	*	0.000	(0.00)	
Does theater W1	0.002	(0.00)	*	-0.002	(0.00)	
Does theater W2	0.001	(0.00)		0.006	(0.00)	*
Use Twitter W1 and W2	-0.004	(0.00)	***	-0.002	(0.00)	*
Use Twitter W1	-0.003	(0.00)	*	-0.005	(0.00)	**
Use Twitter W2	0.000	(0.00)		0.000	(0.00)	
Use Instagram W1 and W2	0.002	(0.00)	**	0.005	(0.00)	***
Use Instagram W1	0.002	(0.00)		-0.001	(0.00)	
Use Instagram W2	0.002	(0.00)	*	0.004	(0.00)	***
Control Variables Wave 1 Only						
Friends come over weekly	0.001	(0.00)	*	0.002	(0.00)	*
House is nice	-0.001	(0.00)	*	0.002	(0.00)	*
Constant	0.006	(0.00)	**	0.008	(0.00)	***
N	8,9	47		8,28	89	
Adjusted R Square	0.2	68		0.25	58	

Note: \*= statistically significant p<0.05; \*\* = significant p<0.01; \*\*\*= significant p<0.001 at one-tailed test. The following control variables were removed because they were not significant in either model: use Facebook, negative experience, positive experience, physical altercation, and nonphysical altercation.

Table 9. Descriptive Statistics for all Variables in the Models

		Girls N=5,660					N=5,182	
	Mean	Std. Dev.	Min	Max	Mean	Std. Dev.	Min	Max
Status Variable								
Brokerage status W1	.00731	(0.01)	0	0.10	.00733	(0.01)	0	0.10
Brokerage status W2	.00733	(0.01)	0	0.11	.00749	(0.01)	0	0.11
Brokerage status change score	.00002	(0.04)	-0.18	0.20	.00015	(0.04)	0.21	0.20
Conflict Variables								
Conflict with Friends W1 and W2	0.052	(0.22)	0	1	0.047	(0.21)	0	1
Conflict with Friends W1	0.104	(0.30)	0	1	0.100	(0.30)	0	1
Conflict with Friends W2	0.078	(0.27)	0	1	0.077	(0.27)	0	1
Conflict with Friends neither wave	0.766	(0.42)	0	1	0.776	(0.42)	0	1
Number of conflict ties W1	3.887	(2.81)	1	35	3.979	(3.25)	1	38
Control Variables Wave 1 and 2								
Appear older W1and W2	0.187	(0.39)	0	1	0.130	(0.34)	0	1
Appear older W1	0.162	(0.37)	0	1	0.156	(0.36)	0	1
Appear older W2	0.224	(0.42)	0	1	0.199	(0.40)	0	1
Appear older neither wave	0.427	(0.49)	0	1	0.514	(0.50)	0	1
Plays sports W1 and W2	0.187	(0.39)	0	1	0.263	(0.44)	0	1
Plays sports W1	0.080	(0.27)	0	1	0.102	(0.30)	0	1
Plays sports W2	0.100	(0.30)	0	1	0.129	(0.33)	0	1
Plays sports neither wave	0.632	(0.48)	0	1	0.507	(0.50)	0	1
Dating W1 and W2	0.170	(0.38)	0	1	0.201	(0.40)	0	1

Dating W1	0.077	(0.27)	0	1	0.078	(0.27)	0	1
Dating W2	0.121	(0.33)	0	1	0.138	(0.34)	0	1
Dating neither wave	0.632	(0.48)	0	1	0.583	(0.49)	0	1
Does theater W1 and W2	0.118	(0.32)	0	1	0.027	(0.16)	0	1
Does theater W1	0.073	(0.26)	0	1	0.022	(0.15)	0	1
Does theater W2	0.048	(0.21)	0	1	0.023	(0.15)	0	1
Does theater neither wave	0.760	(0.43)	0	1	0.928	(0.26)	0	1
Instagram W1 and W2	0.542	(0.50)	0	1	0.320	(0.47)	0	1
Instagram W1	0.018	(0.13)	0	1	0.020	(0.14)	0	1
Instagram W2	0.236	(0.42)	0	1	0.295	(0.46)	0	1
Instagram neither wave	0.205	(0.40)	0	1	0.365	(0.48)	0	1
Control Variables Wave 1 Only								
Friends come over weekly	0.562	(0.50)	0	1	0.566	(0.50)	0	1
Nonphysical altercations	0.015	(0.15)	0	3	0.045	(0.26)	0	5

Table 10. Change Score Models Predicting Brokerage Status Mobility

	Model 1 Girls			Model 2 Boys		
	b	s.e.	Sig	b	s.e.	Sig
Main Variables						
Conflict with friends W1 and W2	0002	(.002)		0002	(.002)	
Conflict with friends W1	0011	(.001)		.0002	(.002)	
Conflict with friends W2	0002	(.002)		.0060	(.002)	***
Number of conflict ties W1	0003	(.000)	*	0002	(.000)	
Brokerage status W1	-2.856	(.065)	***	-2.780	(.070)	***
Control Variables Wave 1 and 2					` /	
Appear older W1and W2	0.001	(.001)		0.003	(.002)	*
Appear older W1	0.001	(.001)		0.003	(.001)	*
Appear older W2	0.001	(.001)		0.003	(.001)	*
Plays sports W1 and W2	0.002	(.001)		0.003	(.001)	**
Plays sports W1	0.000	(.002)		-0.005	(.002)	**
Plays sports W2	0.001	(.002)		0.001	(.002)	
Dating W1 and W2	0.006	(.001)	***	0.003	(.001)	*
Dating W1	0.000	(.002)		-0.003	(.002)	*
Dating W2	0.008	(.001)	***	0.004	(.002)	**
Does theater W1 and W2	0.003	(.001)	*	0.002	(.003)	
Does theater W1	0.002	(.002)		-0.004	(.003)	

Does theater W2	0.002	.002)	0.007	(.003)	*
Instagram W1 and W2	0.001 (	.001)	0.005	(.001)	***
Instagram W1	0.002	.004)	-0.004	(.004)	
Instagram W2	0.001 (	.001)	0.002	(.001)	
Control Variables Wave 1 Only					
Friends come over weekly	0.000	.001)	0.002	(.001)	*
Nonphysical altercations	0.001 (	.003)	0.005	(.002)	**
Constant	0.114 (	.003) ***	0.008	(.003)	**
N	5,66	0	5,182		
R-Squared	0.26	2	0.250		

Note: \*= statistically significant p<0.05; \*\* = significant p<0.01; \*\*\*= significant p<0.001 at one-tailed test. The following control variables were removed because they were not significant in either model: Do lots of homework, do music, use Twitter, use Facebook, house is nice, negative experience, positive experience, and physical altercation.

## Acknowledgment of Previous Publication

Some ideas and work from this dissertation, particularly from Chapters 3 and 4, were recently published in *Social Psychology Quarterly*. See Callejas and Shepherd (2020) in the Bibliography section below for more information on this publication.

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