Milner's Theory of Status Relations and Cyberbullying Among U.S. Adolescents

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ABSTRACT

This research examines the relationship between status and cyberbullying among U.S. adolescents. It distinguishes between several status variables and three categories of involvement in cyberbullying: bullies, victims, and non-participants. Utilizing Milner's (2016) theory of status relations, it was hypothesized that cyberbullying is a means by which high school students attempt to gain status among their peers and enforce the status hierarchy of their schools. The more rigid the differentiation between peer groups in a high school, the more likely there would be cyberbullying present. In addition, this research examined if any differences in cyberbullying existed based on the location of the high school in an urban or rural area. Using a multinomial logistic regression to analyze survey data collected from a university in southwest Virginia, partial support for Milner's (2016) theory was found as some status variables, in particular social association, group mobility, and individual mobility, were related to cyberbullying, but no significant results were found by location type. This research contributes a to new theoretical framework for examining cyberbullying and advances the discussion on the influence of peers in cyberbullying, which can impact prevention and intervention efforts aimed at curbing cyberbullying among adolescents.

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GENERAL AUDIENCE ABSTRACT

This dissertation examines the effects of popularity and peer groups on cyberbullying among US adolescents. Milner (2016) argued that popularity matters in his theory of status relations and implied the more peer groups were differentiated in a school, the more likely bullying was present in the school. Milner (2016) argued bullying was one way students tried to gain popularity in a school setting. However, Milner's (2016) theory has never been tested. This research tests Milner's (2016) to see if it can explain cyberbullying among U.S. youth. College students at a university in southwest Virginia were surveyed about their cyberbullying experiences in high school and asked about popularity of different groups and themselves. Using statistical methods, the data was analyzed and found some support for the assertion that popularity and peer groups matter when it comes to cyberbullying. In addition, this dissertation examined if the location of the high school (urban, suburban, town or rural) impacted cyberbullying, but no support was found for this hypothesis.

DEDICATION

Dedicated to my Ginny: you were unexpected in the best way possible. You are my heart and soul. You drive me up the wall and then bring me back down with the sound of your laughter and a quick smile. You make me want to pull my hair out then hand me a crown and sweetly ask me to play with you. When I started this journey, I never dreamed I'd finish it with you beside me, but nothing in the world could make me happier. I love you baby girl. This was my dream, and I followed it. I hope you follow yours.

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CHAPTER 1: INTRODUCTION

The impacts of bullying on adolescents are well-documented and include increased social anxiety, depression, anger, school avoidance and decreased academic achievement, health complaints, and increased substance use, among others (StopBullying.gov, 2012). Those impacts preliminarily seem to also hold true for cyberbullying (Juvonen & Gross, 2008; Livazović & Ham, 2019; Pelfrey & Weber, 2013; Tokunaga, 2010; Waasdorp & Bradshaw, 2015; Weber & Pelfrey, 2014), with some research suggesting effects are worse for online bullying (Yanez et al., 2019). Before effective intervention and prevention programs can be implemented, cyberbullying as a field needs to answer fundamental questions including what is meant by cyberbullying, how many children are affected by it, what theories can explain these behaviors, and who are the most vulnerable. This study aims to contribute to moving those discussions forward.

Prior to 2003, the term 'cyberbullying' did not exist (Betts, 2016). Since then the number of scholars in the field of cyberbullying has increased considerably, but the proliferation of research has led to a field that is disorganized, spanning multiple disciplines, without a consistent, standard definition of exactly what is meant by 'cyberbullying.' A few unique aspects of cyberbullying, including the 24/7 nature of cyberbullying, the potential for a wide audience, and the possibility that the bully could be anonymous, lead some researchers to say it is a separate phenomenon from traditional bullying (Selkie et al., 2016; Wang et al., 2009). However, most empirical research finds significant overlap with traditional bullying (Baldry et al., 2015; Casas et al., 2013; Festl et al., 2015; Juvonen & Gross, 2008; Modecki et al., 2014; Olweus, 2012; Orue & Calvete, 2019; Paez, 2018; Thomas et al., 2015;Waasdorp & Bradshaw, 2015; Weber & Pelfrey, 2014; Wegge et al., 2014; Zych et al., 2015b).

Due to lack of a standard definition of cyberbullying in the field, estimates of prevalence rates vary significantly between studies. Rates are also muddied by lack of a standard assessment tool. Early research was atheoretical, but even in recent years, theoretical studies are lacking. Peer influence in traditional bullying is well-established in the literature (Salmivalli, 2010), and that influence appears to extend into the cyber world as well (Baldry et al., 2015; Burton et al., 2013; Festl et al., 2013; Hinduja & Patchin, 2013; Livazović & Ham, 2019; Mishna et al., 2009; Paez, 2018). Some research suggests cyberbullying is tied to popularity among adolescents, who use bullying to enhance their popularity (Weber & Pelfrey, 2014; Wegge et al., 2016; Wright 2014).

Research on traditional bullying has suggested rates may be slightly higher in rural compared to suburban and urban schools (Rivara & Le Menestral, 2016). The relationship between cyberbullying and location, however, has not been explored. Some research has explored cyberbullying in urban schools (Pelfrey & Weber, 2013; Varjas et al., 2009), but no comparison was made to other types of localities. Given the high rates of overlap between traditional and cyberbullying, a difference in rates of cyberbullying by location would be expected.

Thus, systematic reviews in the field have pointed to three areas of concern that need to be addressed to move the field forward: a standardized definition (Berne et al., 2013; Betts, 2016; Selkie et al., 2016; Thomas et al., 2015; Tokunaga, 2010; Vivolo-Kantor et al., 2014; Zych et al., 2015a), evidence-based measurement tools (Baldry et al., 2015; Berne et al., 2013; Betts, 2016; Selkie et al., 2016; Tokunaga, 2010; Vivolo-Kantor et al., 2014; Zych et al., 2015a), and research based on theoretical foundations (Barlett, 2019; Tokunaga, 2010). While I will offer suggestions concerning the defining and measuring of cyberbullying, this research is primarily concerned with addressing one of those concerns: the lack of theoretical studies in the field.

Using Milner's (2016) Theory of Status Relations, this research will examine how status among adolescents can affect perpetration and victimization rates of cyberbullying.

Milner's (2016) theory elaborates on the processes involved in how one of the three types of power shape life: status power. While considerable work explores economic and political (or physical) power, status power is relatively understudied. This theory is particularly useful when considering power dynamics among teens (Milner 2016). Because teens have no (or very little) economic or political power, status is how they organize their lives. Peer approval and disapproval is highly important. Status is maintained, gained, or lost through actions like gossip, rumors, and secrets. Aggressive harassment, both verbal and physical, is frequently found among teen groups. According to Milner (2016), teens often engage in putting others down, targeting those who are not part of their status group. This "put down" lowers the status of the non-group member and discourages others from associating with them. These actions reinforce group boundaries between those with high status and those with low status. It also encourages bullying of those of lesser status, in effect, 'keeping them in their place' (see Milner 2016; also see Hawdon 2014).

While this theoretical perspective holds promise, Milner (2016) did not have empirical data to support his hypothesis about bullying. In addition, cyberbullying is only briefly addressed through observations in his work, and no conclusive evidence of status' impact in either traditional or cyberbullying is provided (Milner, 2016). Thus, the overall goal of this research is to provide an empirical test of Milner's theory and its applicability to cyberbullying. In so doing, I will also add to the existing theoretical literature on cyberbullying.

In addition, I will examine if the rates of cyberbullying vary by location (suburban, urban, or rural). Milner's (2016) research indicated smaller schools tended to be more hierarchal versus

pluralistic, which means more group structures and less opportunities for change. Given that status structures are likely to vary depending on location, it will be necessary to determine not only if Milner's theory is useful in explaining patterns of cyberbullying, but also if the accuracy of this explanation is contingent on location. Therefore, this dissertation will address the following overarching research questions:

1. Does Milner's theory of status relations explain individual perpetration of cyber bullying?
2. Does Milner's theory of status relations explain individual victimization of cyber bullying?
3. Does Milner's theory of status relations provide an explanation for an altered power differential in cyberbullying compared to traditional bullying?
4. Do rates of cyberbullying vary by location (rural, suburban, urban)?
5. Does Milner's theory of status relations explain any variations of rates of cyberbullying by location?

This research will contribute to existing literature, then, by providing an empirical test of Milner's theory, adding to the theoretical research on cyberbullying, specifically examining the variables of gender, race, ethnicity, and influence of peers. It will also add in a current missing element to cyberbullying literature: location.

While there is no standard definition of cyberbullying accepted in the field, this research will utilize the definition provided by Tokunaga (2010), which conceptualizes cyberbullying as an extension of traditional bullying:

> "Cyberbullying is any behavior performed though electronic or digital media by individuals or groups that repeatedly communicates hostile or aggressive messages intended to inflict harm or discomfort on others." (pg. 278)

In addition, Tokunaga (2010) offers an addendum that can be used for clarification in research, which adds in elements specific to online bullying:

> "In cyberbullying incidents, the identity of the bully may or may not be known. Cyberbullying can occur through electronically-mediated communication at school; however, cyberbullying behaviors commonly occur outside of school as well." (pg. 278)

Given the significant overlap between traditional and cyberbullying found in previous literature, the use of Tokunaga's (2010) definition seems appropriate.

I generated and tested a series of hypotheses after considering how Milner's theory relates to cyberbullying. To test these hypotheses, a one-time voluntary, anonymous, self-report survey of undergraduate students at a university in Southwest Virginia was conducted through Qualtrics. The survey included questions on the location of the high school the student attended, status groups at said school, cyberbullying by individuals at the school and their status group membership, and basic demographic questions including gender, race, and ethnicity. The survey was a compilation of several assessment tools. Status group questions came from Milner's (2016) study. Since there is no standard empirically based assessment tool currently for cyberbullying, this study utilized questions from a cyberbullying scale developed by Pachin & Hinduja (2015) which has preliminarily shown reliability and validity in ten different surveys of almost 15,000 students in the United States.

There are at least two potential limitations to this study: the use of self-report data, and the time frame of the bullying incidents in this study. Problems with self-report data have been well-documented (Groves et al., 2009). Respondents can and will be dishonest, especially if they believe the researcher is looking for specific responses or if they do not want to admit to certain behaviors. This can threaten the validity of the data collected. To attempt to compensate for these issues, this survey was online, voluntary, and anonymous, allowing respondents to exit without completion and without penalty. The other possible limitation concerns the time frame. This study asked about incidents that occurred in high school, which means students will be recalling incidents that took place a year or more prior. Issues with memory recall include omission and telescoping (Groves et al., 2009). Telescoping refers to recalling events that fall outside of the period the researcher is studying, which leads to an inflation of the numbers of events. Omission is leaving out events because they were either forgotten or the participants believe the events do not meet the criteria of the study, so they do not include them. To attempt to potentially reduce the impact of omission and telescoping, the survey focused on whether or not bullying occurred, and did not ask about specific numbers, times, or dates. A definition of cyberbullying was also provided in the survey before any questions on cyberbullying were asked.

Chapter One provides a brief introduction to cyberbullying and an overview of the dissertation. Chapter Two will introduce the literature on cyberbullying and the theory of status relations, the theoretical foundation for this study. Chapter Three will give an overview of the methodology, including the research questions, specific hypotheses, data, and operationalization of key concepts. Chapter Four will provide the analyses of the data, results, and findings. Chapter Five will include a discussion of the findings, limitations to the current study, and conclusions from the research.

CHAPTER TWO: THEORETICAL FRAMEWORK

Bullying, defined as intentional, repetitive acts committed with a power differential between victim and bully (Olweus, 1996), has been well-studied in the literature in a variety of populations including schools, workplaces, and prisons, among others. Focusing specifically on schools, the average prevalence rate across 35 countries is approximately 11 percent for victimization, and 11 percent for perpetration (Salmivalli, 2010). The impacts of bullying on adolescents are well-documented and include increased social anxiety, depression, anger, school avoidance and decreased academic achievement, health complaints, and increased substance use, among others (StopBullying.gov, 2012). There is also evidence that these impacts can affect peers simply witnessing but not directly involved in bullying (Salmivalli, 2010).

As mentioned in Chapter One, prior to 2003, the term 'cyberbullying' did not exist (Betts, 2016). It first began to appear in the academic literature with the launch of a website by Bill Belsey to address cyberbullying in Canada (Betts, 2016) and the publication of the first article on cyberbullying in a law journal covering freedom of speech (Zych et al., 2015a). Since then, the number of researchers interested in cyberbullying has increased considerably, with each year seeing a substantial increase in the number of articles related to the topic, fueled in part by media attention to "bullycides," or suicides committed after being cyberbullied (Betts, 2016).

However, the proliferation of research has led to a field that is disorganized, spanning multiple disciplines. In the past several years, many systematic reviews and books have been published in an attempt to bring cohesion to the field. These reviews point to numerous areas of weakness that need to be addressed to move the field forward and answer questions that have plagued researchers for the last two decades. The most consistent recommendations of these

reviews include a standardized definition (Berne et al., 2013; Betts, 2016; Selkie et al., 2016; Thomas et al., 2015; Tokunaga, 2010; Vivolo-Kantor et al., 2014; Zych et al., 2015a), evidence-based measurement tools (Baldry et al., 2015; Berne et al., 2013; Betts, 2016; Selkie et al., 2016; Tokunaga, 2010; Vivolo-Kantor et al., 2014; Zych et al., 2015a), and a call for research based on theoretical foundations (Barlett, 2019; Tokunaga, 2010). Adopting a standardized definition would allow for the development of measurement tools that would give accurate prevalence rates and ensure quality research is being produced. It would also allow for examining trends across time and populations (Selkie et al., 2016).

Definitions of Cyberbullying

Some studies start with a traditional definition of bullying, defined as intentional, repetitive acts committed with a power differential between victim and bully, most often a physical power differential (Olweus, 1996). They then add in elements to account for the cyber nature of the bullying, emphasizing the use of computers, cell phones, or social networking sites and instant messaging (Casas et al., 2013; Olweus, 2012; Ybarra et al., 2012). Other researchers believe that extending the traditional definition misses distinguishing features of cyberbullying, which they believe make it a unique phenomenon separate from traditional bullying (Selkie et al., 2016; Wang et al., 2009).

These theorists (Selkie et al., 2016; Wang et al., 2009) contend that three features in particular make cyberbullying distinct from traditional: anonymity, time, and audience. Anonymity refers to the possibility that a victim may not know who the bully is, given that email addresses and screen names can be created and changed to conceal the identity of the user. Li (2007) found that almost half of cyber victims (46.6%) did not know who bullied them. Ybarra et al. (2012) found 46 percent of those bullied online did not know the perpetrator, and Mishna et

al. (2009) also pointed to anonymity as a key theme in their research. However, other studies have documented that despite the potential for anonymity, many victims do know the identity of their online bully (Juvonen & Gross, 2008; Waasdorp & Bradshaw, 2015).

The second fact that may make cyberbullying unique is time. Here, time refers to the 24/7 nature of cyberbullying. Whereas at the end of the school day a student can go home and temporarily escape the face-to-face traditional bullying, with cyberbullying an incident can occur anytime, anywhere (Mishna et al., 2009). The third factor that makes cyberbullying unique is audience, which refers to potential viewers of the cyberbullying incident. In person, a bullying incident would have a limited audience of students present when it takes place. Online, the prospective audience for a post, picture, video, etc. to go viral or be shared among numerous groups and individuals means the audience could reach much farther than school peers, and even potentially go worldwide (Casas et al., 2013). Cyberbullying does not require the victim and offender to be in the same place at the same time, unlike traditional bullying, giving it an asynchronous nature that is typical of other online crimes as well (see Reyns et al., 2011).

Audience overlaps with repetition, which some researchers argue, along with power differentials, may manifest differently in the cyberworld (Patchin & Hinduja, 2015). Where in face-to-face interactions, repetition refers to the ongoing nature of bullying, in cyberbullying, an incident such as a hurtful comment posted only once can be viewed multiple times over the course of weeks, months, even years. A single post also has the potential to "go viral" and be shared by multiple people, widening the potential audience. Repetition then can refer to number of views or shares, rather than ongoing comments and posts, though those occur as well (Patchin & Hinduja, 2015). While online a physical power differential may not be important, it can be if the victim is also being bullied in person. Online power differentials can also manifest through

knowledge and proficiency with online media, allowing for greater anonymity potential, or sharing power (Patchin & Hinduja, 2015). Moreover, looking at the definition by Tokunaga (2010), communication is the key to cyberbullying. This differs from traditional bullying where physical power is much more relevant. Because of this difference, a theory of status may be useful because cyberbullying is exclusively based on thoughts and ideas instead of physical force.

These factors contribute to the continued debate, almost 20 years later, on whether cyberbullying is a unique phenomenon or an extension of traditional bullying into the cyberworld. Empirical evidence can be found to support both positions. However, the majority seem to support cyberbullying as an extension of traditional. There is significant overlap between the two found in multiple research studies, with most finding some combinations of cyberbullying behaviors, risk factors, and perpetrators and victims to be similar, if not identical, to those of traditional bullying (Baldry et al., 2015; Casas et al., 2013; Festl et al., 2015; Juvonen & Gross, 2008; Modecki et al., 2014; Olweus, 2012; Orue & Calvete, 2019; Paez, 2018; Thomas et al., 2015;Waasdorp & Bradshaw, 2015; Weber & Pelfrey, 2014; Wegge et al., 2014; Zych et al., 2015b). Surprisingly though, at least one study found that 71 percent of victims were not bullied by the same person online as in person (Waasdorp & Bradshaw, 2015), despite the high overlap between perpetration and victimization in traditional and cyberbullying. This finding was contradicted however, by Wegge et al. (2014), who used social network analysis to examine patterns between traditional and cyberbullying, concluding "cyberbullying is an extension of traditional bullying as victims often face the same perpetrators offline and online" (pg. 415). Juvonen & Gross (2008) found half of cyberbullying victims knew their perpetrators from school, leading to conflicting results on who is actually bullying whom online.

Definitions therefore vary. I adopt Tokunaga's (2010) definition of cyberbullying as extension of traditional, given the significant overlap between traditional and cyberbullying shown in previous research. Tokunaga (2010) defines cyberbullying as:

> "Cyberbullying is any behavior performed though electronic or digital media by individuals or groups that repeatedly communicates hostile or aggressive messages intended to inflict harm or discomfort on others." (pg. 278)

Tokunaga (2010) also offers an addendum that can be used for clarification in research, adding in elements specific to cyberbullying:

> "In cyberbullying incidents, the identity of the bully may or may not be known. Cyberbullying can occur through electronically-mediated communication at school; however, cyberbullying behaviors commonly occur outside of school as well." (pg. 278)

However, this definition, because it is about communication and not physical power, leaves room for the possibility of cyberbullying as a unique phenomenon, focusing on cyberbullying as a function of status power instead of physical.

Types of Cyberbullying

There are multiple types of cyberbullying. At least seven have been identified and are described below (from Watts et al., 2017):

1. Flaming: sending angry, rude or vulgar messages via text or email about the victim to the victim directly or to an online group
2. Online harassment: repeatedly sending offensive messages to the victim
3. Cyberstalking: repeatedly sending threatening messages to the victim
4. Denigration: sending untrue or hurtful messages about victim to others

5. Masquerading: cyberbully pretends to be someone else and sends/posts threatening or harmful information about one person to other people
6. Trickery and outing: cyberbully tricks the victim into providing embarrassing, private, or sensitive information about themselves then shares/posts/sends that information to others
7. Exclusion: purposefully leaving individuals out of an online group

Assessment Tools

Using differing definitions, studies have also measured cyberbullying in various ways. Ybarra et al. (2012), using two split-form studies, found that using the word "bully" in surveys and having a follow-up question about differential power reduced youth self-misclassification, leading to more accurate estimates of perpetration and victimization rates. They argue that directly measuring aspects of bullying reduces misclassification and advocate distinctions be made by mode (in person or online), type (physical, relational), and environment (school, home) to avoid double counting of incidents (Ybarra et al., 2012).

Vivolo-Kantor et al. (2014) conducted a systematic review of bullying and cyberbullying measurement strategies. A total of forty-one publications were analyzed. Cyberbullying was not assessed by the majority of measures included in the study. The authors argued the field needs uniform terminology and definitions to describe behaviors. Most measurement strategies included in their study lacked sufficient psychometric properties, including validity and reliability indicators. Their findings demonstrate inconsistency in measurement strategies, making comparing prevalence rates between measures difficult (Vivolo-Kantor et al., 2014).

Berne et al. (2013) also conducted a systematic review of cyberbullying assessment instruments. Forty-four studies published prior to October 2010 were included in their review.

The authors argue that when deciding on which instrument to use, it is important to consider how the underlying concept is defined by the developers of an instrument. Most included in their definitions the online component of cyberbullying and intention to harm by perpetrator. Approximately half included the repeated nature of behavior, and only thirteen contained a measurement on the imbalance of power. None of the three suggested characteristics specific to cyberbullying (time, anonymity, and audience) were included in any instruments' definitions of cyberbullying. More than half did not report reliability statistics. The authors argue for the need to investigate validity and reliability of most existing instruments and resolve conceptual and definitional fluctuations (Berne et al., 2013).

Recognizing there is no consensus in the field about which measurement tool to employ, the choice of instrument is somewhat arbitrary. However, some scales have been more widely used than others, and this criterion, while not overly impressive in-and-of-itself, does provide the benefit of making the findings of studies comparable. Thus, this study utilizes a commonly used cyberbullying scale developed by Patchin and Hinduja (2015). Preliminary tests of their scale in ten surveys with 15,000 U.S. students demonstrated strong initial validity and reliability. Their scale does not include question on intention to harm by the perpetrator or power differential, both components of traditional bullying, however the authors argue that measuring power differential through cyberbullying is difficult, and "harm must be taken at face value to the target, and is therefore best measured through self-report methods" (Patchin & Hinduja, 2015, pg. 72). This study includes measures of power differential but by examining status of perpetrators compared to status of victims (discussed later) rather than the physical power differential of traditional bullying.

Rates of Cyberbullying

In addition to the deliberation over definition, debate ranges on prevalence rates, and factors that influence perpetration and victimization. Estimated prevalence rates vary significantly, largely due to the lack of a standardized definition. A lack of a standardized assessment tool also contributes to this variation in estimates concerning prevalence rates. The way in which cyberbullying is conceptualized and measured varies significantly across studies, as does the time frame in which cyberbullying is assessed (Zych et al., 2015b). As such, prevalence rates range drastically from study to study.

While there is no agreement on the overall rates of cyberbullying, there are estimates. The average cyberperpetration rate found based on one review was 16 percent, with average cybervictimization rates of 15 percent (Zych et al., 2015b). "Higher rates were found when a clear definition was provided and the terms 'fun' or 'tease' were included. Lower rates were found when behavioral examples…or the term 'bully' were included in the measure" (Zych et al., 2015b, pg. 3). Betts (2016) and Tokunaga (2010) placed victimization rates between 20 and 40 percent, while Selkie et al. (2016) found victimization rates ranged between 3 and 72 percent, and perpetration rates between 1 and 41 percent. A report released in November 2019 by the National Center for Education Statistics gave a 3 percent victimization rate of electronic bullying among U.S. students aged 12 to 18 in the 2016-2017 school year (Yanez et al., 2019).

Current research does not have accurate prevalence rates. Rates range between 3 percent and 72 percent for victimization, and 1 percent to 41 percent for perpetration. Rates are highly contingent on how online bullying is defined and measured. However, despite uncertainty in the prevalence rates, one thing is certain: cyberbullying is occurring.

Correlates of Cyberbullying

Most research is atheoretical, focused on individual risk factors or community-level influences (peers, family, school); however, these studies have been valuable in noting the various correlates of cyberbullying. Early studies in particular focused on prevalence rates and individual factors as the field struggled to make sense of the phenomenon. Examined individual factors included (among others) gender, age, race, ethnicity, psychopathic traits, positive attitudes towards bullying, and moral disengagement.

Gender. Multiple studies concluded boys are more likely than girls to cyberbully (Baldry et al., 2015; Barlett, 2015; Calvete et al., 2010; Festl & Quandt, 2013; Li, 2007; Livazović & Ham, 2019; Pelfrey & Weber, 2013; Wang et al., 2009) while several have found girls are more likely than boys to be victims (Baldry et al., 2015; Festl & Quandt, 2013; Kowalski et al., 2019; Waasdorp & Bradshaw, 2015; Wang et al., 2009; Yanez et al., 2019). However, the girls-as-victims finding is not consistent, as some research has suggested males are more likely to be victims (Pelfrey & Weber, 2013), and other research suggests no gender differences in victimization (Tokunaga, 2010).

Race/Ethnicity. The influence of race and ethnicity on rates of cyberbullying has mixed results in the literature, and literature examining this influence is scarce (Cross et al., 2015; Kowalski et al., 2019; Zych et al., 2015; Yanez et al., 2019). Waasdorp & Bradsahw (2015) found black youth were significantly less likely to be cyberbully victims compared to white youth. Yanez et al. (2019) confirmed this finding, showing a victimization rate of 17 percent among white youth, compared to only 12 percent among non-white youth. Wang et al. (2009) found black youth more likely to perpetrate cyberbullying compared to white youth, a finding confirmed by Paez (2018) who found black students 65 percent more likely to engage in

cyberbullying. Wang et al. (2009) also found Hispanic youth were more likely to be cyberbully-victims compared to whites, whereas Paez (2018) found Hispanics were 59 percent more likely to engage in cyberbullying compared to non-Hispanics. Adolescents who identified as "other" race/ethnicity were more likely to be targets of cyberbullying than white adolescents (Wang et al., 2009). Näsi et al. (2017) found that having at least one immigrant parent increased risk of online victimization by 4 percent in the US and 8 percent in Germany.

Race and ethnicity may also impact what variables influence perpetration and victimization. Cho et al. (2019) examined social-ecological correlates of cyberbullying among African American youth, finding several variables influential in prevalence rates. In particular, for black youth, those who spent less time using a computer, whose fathers monitored their online activities (compared to mothers monitoring), and who had more unstructured activities with peers were less likely to be either victims or perpetrators of cyberbullying (Cho et al., 2019).

Age. Some research suggests older students are more likely to bully online than younger students are (Kernaghan & Elwood, 2013; Pelfrey & Weber, 2013; Weber & Pelfrey, 2014) though a focus group of high school students believed the younger students were more likely to be involved due to immaturity (Weber & Pelfrey, 2014), and others have found no significant age difference in cyberbullying (Festl & Quandt, 2013). Yanez et al. (2019) found higher rates of victimization among high school students (19%) compared to middle school students (12%).

Attitudes About Bullying. Orue & Calvete (2019) found in their study of Spanish adolescents that "adolescents who are callous, lack empathy and remorse, and use cognitive strategies to justify their aggression are at higher risk for becoming involved in cyberbullying." (pg. 2325) Baldry et al. (2015), Barlett and Gentile (2012), Burton et al. (2013), and Wright and Li (2013) also found normative beliefs about aggression to be risk factors for cyberbullying perpetration.

Peer Influences. Community-level influences tend to focus on family, friends, and school environment. In particular, the influence of peers has been widely examined. The relationship between peers and traditional bullying has already been well established (Salmivalli, 2010), and that relationship seems to continue into the cyber realm. The importance of peer factors, including perceived peer support and peer rejection on both perpetration and victimization, was found in multiple studies (Baldry et al., 2015; Burton et al., 2013; Hinduja & Patchin, 2013; Lee et al., 2018; Livazović & Ham, 2019; Mishna et al., 2009; Paez, 2018). For example, Festl et al. (2013) found that close friends are not as relevant in cyberbullying as classroom atmosphere is. The number of bullies within a class played an important role in predicting both perpetration and victimization online, suggesting peer influence is not limited to one's close friend group (Festl et al., 2013). Several studies took a socio-ecological approach, which includes individual and community-level factors in their analysis, finding an interaction between the two matters for cyberbullying behaviors (Cho et al., 2019; Cross et al., 2015; Lazuras et al., 2013). Cross et al. (2015) specifically examined risk and protective factors that potentially mediate adolescents' online bullying and how those factors interact at the individual, family, peer, and community levels. They found these interactions influence adolescents' development both positively and negatively over time (Cross et al., 2015). Festl and Quandt (2013) also found support for the importance of networks in their study of cyberbullying, arguing that individual explanations, without accounting for structural factors, will be insufficient to explain cyberbullying behaviors (also see Wegge et al., 2014).

A systematic review of meta-analyses conducted by Zych et al. (2019) to examine the most important protective factors against cyberbullying found high peer status and support were related to low cybervictimization. Positive peer influence and support were also related to less

cybervictimization. High peer status, positive peer influence, and peer support were also related to low levels of perpetration of cyberbullying. "Peer factors were among the strongest protective factors against cyberperpetration" (Zych et al., 2019, pg. 16).

Cultural Differences. Multiple studies used international samples (Calvete et al., 2010; Festl et al., 2013; Festl et al., 2015; Heirman & Walrave, 2012; Kernaghan & Elwood, 2013; Lee et al., 2018; Näsi et al., 2017; Orue & Calvete, 2019; Pabian & Vandebosch, 2014) and some evidence suggests cultural differences in cyberbullying (Näsi et al., 2017; Li, 2007; Zych et al., 2015b), which would inhibit generalizations cross-nationally. It also suggests causes and interventions would need to be culturally specific. Zych et al. (2015b, pg. 11) discovered "countries and continents were found to be significant moderators, namely, boys cyberbullied more in some geographic zones and there were no sex differences in other zones." In addition, they found "North American samples showed bigger effect sizes for the relationships of cybervictimization with bully perpetration and victimization and cyberbullying with traditional bullying when compared to other geographic zones" (2015b, pg. 12). In other words, in North America, the correlation effect for cyberbullying with traditional bullying was higher than in other geographic regions, both for victimization and perpetration.

Location. Research on traditional bullying has suggested rates may be slightly higher in rural compared to suburban and urban schools (Rivara & Le Menestral, 2016). Data from large national studies in the U.S. have found rates of 30 percent in rural areas, compared to 29 percent in suburban and 25 percent in urban. One suggested reason for these differences is in smaller rural schools there may be less opportunities for students to redefine their social identity due to fewer school transitions (for example, going straight from elementary to high schools). This contradicts social disorganization theories that suggest due to concentrated poverty and exposure

to violence in inner cities, higher rates of bullying should be found in those schools (Rivara & Le Menestral, 2016). The relationship between cyberbullying and location has not been explored. Some research has explored cyberbullying in urban schools (Pelfrey & Weber, 2013; Varjas et al., 2009), but no comparison was made to other types of localities. Pelfrey & Weber (2013) found almost 90 percent of students in an urban setting were never victimized online, despite almost 75 percent of students using social networking sites. Approximately 6 percent of respondents reported they were victimized multiple times per month. Over 80 percent reported never perpetrating cyberbullying, with just over 10 percent reporting perpetration multiple times per month. Varjas et al. (2009) did not report perpetration or victimization rates in their study of urban middle school students.

Theories of Cyberbullying.

While existing theoretical studies span multiple fields including information technology, sociology, communications, psychology, and education, there is a surprising lack of theoretical agreement in the cyberbullying field. Some support has been found for routine activities theory (Chan et al., 2019; Näsi et al., 2017) and strain theory (Paez, 2018) as explanations for cyberbullying, but findings are mixed, and the theories do not fully account for all of the factors shown to impact cyberbullying. According to routine activities theory (RAT), three core elements determine when a deviant behavior will take place: the presence of a motivated offender, absence of a capable guardian, and a suitable target. Näsi et al. (2017) tested RAT in four countries but found only presence of a motivated offender to be significant in all four. The protective role of a guardian was only supported in the US and Germany, not in Finland or the UK. They concluded "the suitability of RAT in the online context seems to be dependent on the type of variables associated with the core elements of RAT" (Näsi et al. 2017, p. 427).

Chan et al. (2019) found support for the presence of suitable targets and absence of guardians in their study of cyberbullying on social networking sites. They argue the large number of users and ample amount of sensitive personal information provide multiple targets for bullying in an online context. Guardianship in their study referred to both offline authorities like laws and regulations against cyberbullying and online mechanisms for reporting abuse and detection algorithms (Chan et al., 2019). The authors argue new legislation with heavier penalties for online bullying, combined with zero-tolerance policies by developers of social networking sites, could discourage cyberbullying.

While these studies show some support for RAT, this theory does not adequately explain the role peers play. Peers could fill the role of motivated offender or capable guardian in cyberbullying in addition to suitable target, and RAT has not yet effectively linked how the theory can account for these roles in cyberbullying research. Peers have been shown to have significant influence in perpetration and victimization (Baldry et al., 2015; Burton et al., 2013; Festl et al., 2013; Hinduja & Patchin, 2013; Livazović & Ham, 2019; Mishna et al., 2009; Paez, 2018). In addition, how guardianship is conceptualized in cyberspace is problematic. While Chan et al. (2019) conceptualized guardianship as legal authority to intervene and online algorithms, Nasi et al. (2017) viewed guardianship as social networks outside the online context that could serve as buffers, as well as living with parents who may have a guarding effect. Both of these views are problematic in that neither fully explores how guardians may protect from online harassment. Parental monitoring can only go so far, as apps that can be hidden on phones from watchful parents have been developed (Marklin, 2018), and monitoring a child's use of social networking will not stop another child from bullying them online, though it may stop that child from perpetrating. In addition, anonymity of perpetrators can pose difficulties in prosecuting

through legal means, and reporting comments or abuse may not necessarily stop if the perpetrator simply changes their screenname or creates a new identity to continue the abuse.

Strain theory has also been used to explain cyberbullying. When individuals are unable to achieve their goals through legitimate means, they experience strain, developing negative emotions such as anger and frustration that may lead to deviant behavior in pursuit of their goals. Using data collected from over 12,000 students in the U.S., Paez (2018) found students who experience strain in the form of low levels of family relationship satisfaction, low levels of peer acceptance, and negative feelings about school were more likely to commit cyberbullying. However, a major criticism of strain theory is that it deals with individual responses to strain, ignoring group factors and social structures (Shoemaker, 2010). Preliminary research has indicated that group and social structures are important in cyberbullying explanations; individual factors alone will not suffice to explain online bullying (see Cho et al., 2019; Cross et al., 2015; Festl and Quandt, 2013; Lazuras et al., 2013; Wegge et al., 2014).

These theories are useful for explaining some elements of cyberbullying. Strain provides possible explanations for what motivates offenders but ignores group factors and social structures. RAT has shown some support for all three of its elements but never in the same study, and the conceptualization of online elements is problematic. As currently explored in the research, these theories fail to adequately explain online bullying. Because of their lack of explanatory power, I am turning to another theory. As stated earlier, the communicative aspect of cyberbullying compared to the physical differential in traditional bullying makes a theory of status more relevant.

Milner's Theory of Status Relations

Overview. Milner's (2016) Theory of Status relations is one possible explanation for cyberbullying behaviors that has yet to be explored. Milner (1994) originally developed his theory to study the Indian caste system, and later applied it in a study of high school students to explain their group behavior. His theory does not focus on how students behave, but why, with an emphasis on peers. Milner extended his theory to high school students in his 2006 *Freaks, Geeks, and Cool Kids*, which was re-released in 2016. Milner built his theory from Weber's argument that there are three sources of power: class, status, and party (Weber, 1978). Milner defines them as economic, status, and political. A theory of status power is particularly relevant to teens because they are virtually shut out of gaining meaningful levels of economic and political power. As such, status is all they have. Status is defined as "the accumulated approval or disapproval that people express toward an actor or an object…the sum of the evaluations that are 'located' in the minds of other people with whom the person interacts" (Milner, 2016, p. 39). Status groups are created by individuals who share a certain lifestyle, understand certain symbols and rituals, and are marked by different practices and modes of consumption. Sanctions for behaviors are either approval or disapproval by peers (Milner, 2016).

Elements. Four elements comprise the theory status relations: conformity, social association, inalienable, and inexpansable (Milner, 2016). Conformity refers to behaviors that fall within group norms. Conforming to group norms leads to higher status as group members value those who follow the group's rules (Milner, 2016). Social association means who you associate with matters. Inalienablity refers to the inability to convert other resources, such as money and power, into status (in most cases). Status resides in other people's minds; it is their opinion of you. It is extremely difficult to change opinions and increase your own status (Milner, 2016). The last

element of Milner's (2016) theory notes that status is inexpansable. Inexpansable means status mobility is highly restricted. If everyone has a given status (e.g. an "A" student), that status loses its power, therefore status is limited. If one person moves up, someone else must move down (Milner, 2016).

Bullying. Milner (2016) states some ways status is maintained, gained, or lost is through actions like gossip, rumors, and secrets. While Milner (2016) does not call these actions "bullying" directly, he frequently uses the term aggressive harassment, either verbal or physical, and describes incidents from his data that fit the definition of bullying, including tackling, roughing up, and insults.

Concerning his first element, conformity: group norms facilitate the group's survival. They protect it from outside interference or harassment by members of other groups and make clear what the boundaries of the group are by conveying what is distinct about the group to outsiders. Norms also provide the justification for activities to its members (Feldman, 1984). Some research suggests that adolescents conform to norms of high-status peers over low-status peers (Teunissen et al., 2012). Put simply, popularity matters. In their study of alcohol behaviors among adolescents, Teunissen et al. (2012) found the norms of peers towards alcohol consumption, both pro and anti, influenced an adolescent's likelihood of drinking. Interestingly, popular peers with anti-alcohol norms were most influential. When adolescents were confronted with anti-alcohol norms by popular peers, they were less willing to drink. This relationship was the strongest of all tested. In addition, adolescents internalized the anti-alcohol norms of their popular peers (Teunissen et al., 2012).

Popular students then can dictate actions of others. Students will conform to the norms of their peers, particularly the popular ones, to make a good impression (Teunissen et al., 2012). It

means if a higher status group normalizes bullying as acceptable, other students may also imitate this behavior as a way to raise their own status. However, Milner (2016) argues those with higher status tend to complicate the norms, changing them frequently, so those of lower status never know what the norms are and thus are kept out of the higher status group. Thus, students may not know the acceptability of a behavior like bullying, if students in higher status groups engage in the activity inconsistently or give mixed signals about it as a normative behavior of the group. This confusion can mean students may be ostracized for engaging in bullying one week, while praised the next, and never able to consistently meet expectations for inclusion in the higher status group. It could also mean that one form of bullying (physical) is acceptable while others (relational) are not. This constant changing of norms ensures the higher status group is protected from infiltration and maintains the status quo (Milner, 2016).

According to Milner (2016), friends and group members frequently engaged in snide talk about those outside their group, which lowers their status and discourages others from associating with them. Bullying then works to discourage social association with members outside of your own group. As Feldman (1984) showed in his research, boundaries are created through group norms and show what is distinct about that group to outsiders. They also create a collective identity or an insider-outsider effect. Collective identity is a public pronouncement of status; a set of attitudes, commitments, and rules for behavior. Individuals that assume the identity of the group can be expected to subscribe to those rules (Friedman & McAdam, 1992). It is also an individual announcement of affiliation, of connection with others. To become part of a collective identity is to reconstruct the individual self around a new and valued identity, that of the group (Friedman & McAdam, 1992).

Group threat theory provides another example of insider-outsider effect. According to group threat, prejudice arises from group identity, out-group stereotyping, preferred group status, and perceived threat (Hjerm, 2007). Explicit or implicit challenges to the dominant group's position are the catalyst that makes all four conditions give rise to prejudice. As Hjerm (2007) argues, rigid boundaries must exist between the groups. The greater the rigidity, the more difficult to socially migrate between groups, and the stronger the significance of the in-group. Hjerm (2007) also states there needs to be a propensity for group-based conflicts.

Realistic group conflict theory argues intergroup conflict is the result of conflicting goals, for example, competition for resources (Jackson, 1993). Two specific factors that influence relationships between groups are real or imagined threats to the safety of the group, and social status. When groups engage in competitive activities, the outgroup will become stereotyped, and group hostility deepens (Jackson, 1993). In extreme cases, this "othering" effect has led to serious violence including genocide, as group identity and loyalty provide justification for violence against an out-group (see discussion in Hawdon, 2014). In high schools, bullying can be one means of "othering" other individuals who are seen as a threat to the status group, competing for status resources.

Associating with someone of a lower status can decrease one's own social standing but associating with someone in a higher status could increase one's popularity (Milner, 2016). While this would happen with intra-group relations, it is also possible for this to occur in inter-group relations. That is, one could conceivably start associating with a high-status person from a different group, such as at a different school. However, this is unlikely to convey status within one's original group, as association with someone outside one's own group could be interpreted as a threat to the group itself. As realistic group conflict theory has shown, negative treatment of

out-group members can result from perceptions of those out-group members as competing for resources (Jackson, 1993), in this case, status resources. Bullying would be one way in which the group would protect itself and its status resources, by enhancing the negative qualities of the other group through bullying and exaggerating the differences between their group and the out-group.

Putting others down allows an individual to move up, which Milner (2016) argues is the reason put-downs and other bullying actions are so common. "Physical aggression was also used to keep people in their place. High-status boys would gang-tackle and rough others…" (Milner, 2016, pg. 98). This directly relates to his concept of status as inalienable. You can hire or force people to say good things about you and bad things about people you do not like, but you cannot force or pay them to believe those things about you. Wealth or force cannot confer status and attempts to gain status with wealth or force can even reduce one's reputation. Status symbols can be purchased, but often the purchase has to be hidden or disguised to be translated into status. For example, paying for a college degree can lead to a degree that confers status, but if exposed, it can destroy the status acquired, and those who openly try to purchase or coerce status are held in contempt (Milner, 1994).

Strain theory posits that when individuals are unable to achieve their goals through legitimate means, they experience strain, which may lead to deviant behavior in pursuit of their goals, i.e., status. This would explain why individuals try to buy or force status, as they are not able to get status through "legitimate" means. It could also help explain why adolescents use bullying as a means to get or maintain status. Bullying would be a response to strain, a deviant behavior in pursuit of status (Paez, 2018). Paez (2018) speculates students may bully as a way to fit in at

school or to enhance their social status. Some research supports these assertions, finding popularity is tied to bullying (Wright, 2014).

Concerning inexpansibility, when status mobility is limited, "intergroup contacts decrease, thereby decreasing the group's heterogeneity," which reduces pluralism and intensifies differences between in-group and out-groups (Matheis et al., 2014, pg. 190). Thus, when status mobility is low, prejudice against out-groups and their members increases. Low status mobility also means limited groups are available for membership, increasing the costs of leaving or being kicked out of a group (e.g. "exit costs"), and increasing the group's ability to demand conformity to group norms (Matheis et al., 2014). Since status is defined by Milner (2016) as inexpansable and limited, research would suggest those with status would intensify the differences between status groups, increasing prejudice against those of lower status (see Matheis et al., 2014). Realistic group conflict theory is also applicable, as stated by Jackson (1993): "In other words, competition over scarce resources causes the rudiments of intergroup hostility to take over." Competition over scarcity could lead to increased bullying as both a way to protect status resources and demonstrate group loyalties and conformity to the group's norms.

However, not every bullying target is the same. The suitable target element of Routine Activities theory would suggest that the victim of bullying is extremely important in relation to status. Bullying is a way to lower a rival's status, but not all rivals would give the same amount of status to a bully. If a bully engaged in bullying with a lower status person, the status gained would be minimal. However, if a bully engaged in bullying a more popular student, then the status gained by the bully would be more significant, in addition to the popular student losing significant status. Thus, some victims would be more attractive than others. Previous research suggests that target suitability is closed tied to participation in certain activities including the

performing arts (Cecen-Celik and Keith, 2019; Cho et al., 2017; Choi et al., 2019); and activities are closely tied to group membership (see Hawdon, 1996). It follows then that target suitability would be related to status group membership, which is based on activity participation.

Milner's (2016) theory then brings multiple facets of other theories into one, under the banner of status. Popular students dictate the actions of others, and others will conform to those norms to gain status. Bullying is one way in which students show who is conforming to those norms and who is not and is a way to create boundaries to show who is socially acceptable to speak to and who is not. You cannot buy or fake status, but one way to attain it is through bullying, and who you bully matters. As someone moves up, another person moves down, so the victim is critical in gaining status for the bully.

Cyberbullying. Given the previously documented overlap between bullying and cyberbullying (Baldry et al., 2015; Casas et al., 2013; Festl et al., 2015; Juvonen & Gross, 2008; Modecki et al., 2014; Olweus, 2012; Orue & Calvete, 2019; Paez, 2018; Thomas et al., 2015;Waasdorp & Bradshaw, 2015; Weber & Pelfrey, 2014; Wegge et al., 2014; Zych et al., 2015b), it would follow that any relationship between Milner's (2016) theory and bullying would also hold true for cyberbullying.

Conformity. As discussed by Teunissen et al. (2012), popularity matters for group norms, and popularity can dictate the actions of others. Research findings suggest cyberbullying can enhance one's popularity (Wegge et al., 2016; Wright, 2014), students spread rumors online because they want to be popular (Weber & Pelfrey, 2014), and to be cyberbullied online by a popular student was found to be more distressing than to be bullied online by an unpopular student (Pieschl et al., 2013). In addition, popularity types and cyber behaviors were found to follow similar patterns as face-to-face behaviors (Wright, 2014). An application of Milner's

(2016) theory would suggest rates of cyberbullying would follow similar patterns to rates of traditional bullying, and status group norms would dictate prevalence of cyberbullying in the same way as they do traditional forms of bullying. Milner's (2016) theory would also suggest that those who conform to the group norms would not be victimized by those within their group, though they may be targets of individuals in other groups. In the online environment, Nicholls and Rice (2017) argue group prototypes are the most salient feature in how group's respond to deviance (challenges within the group). Prototypes are the group attributes that distinguish it from other groups. Members who are more prototypical are given more status within the group, and are able to commit minor deviations more freely, but are also judged more harshly if the deviance is seen to threaten the group. Deviance is perceived as more threatening from in-group members than out-group members. Newer members are judged less harshly, as they are considered less a threat or not expected to know yet the group's norms. An application of Milner's (2016) theory then would argue the more popular an individual within a group, the more likely they can get away with committing cyberbullying, as long as it is not a threat to the group itself. Moreover, the more popular a member of a group, the less likely she or he would be the targets of norm-protecting bullying. However, should a member of the group behave in a way that is seen as threatening the group, the more likely they would be a cybervictim, and their cyberbully a member of their own group, as they enforce the group norms on the deviating member. In short, the more one conforms to the group's norms, the less likely the individual will be a cybervictim, at least at the hands of a fellow group member.

Social Association. There is evidence that adolescents "recreate" their social groups online. Boyd (2008, p. 3) "found that teen participation in social network sites is driven by their desire to socialize with peers. Their participation online is rarely divorced from offline peer

culture;" a finding confirmed by Weber & Pelfrey (2014), who stated most students connected to friends online that they know from school or the general vicinity, with a strong overlap between the school and online environments. Juvonen & Gross (2008) claimed most youth engage in online activity to maintain friendship networks or for romantic relationships. Wright (2014) argued the similarity in online and offline behaviors by different popularity types provides support for co-construction theory, in which adolescents create similar identities online as they do in person (support for co-construction theory also found by Wright & Li, 2013). Previous research also found that participation in certain activities led to higher rates of bullying (Cecen-Celik and Keith, 2019; Cho et al., 2017; Choi et al., 2019). This preliminarily seems to be true for cyberbullying as well, but not enough research exists for conclusive results. Choi et al. (2019) found that participation in certain activities at school increased risk of cybervictimization. For example, youth who used alcohol and drugs at school, youth involved in gangs, and youth who were involved in the performing arts were more likely to be cybertargets (Choi et al., 2019).An application of Milner's (2016) theory would again dictate that this recreation of social groups online would lead to rates of cyberbullying that follow similar patterns to rates of traditional bullying by different status groups. One's status group in person would likely be one's group online. Social association would not change in the online environment, and behaviors online would reinforce group boundaries and be used to maintain or increase one's own social standing within their status group and the larger community of status groups. Milner's (2016) theory would also suggest membership in certain status groups would lead to higher rates of cybervictimization as they are considered more attractive targets with a bigger payoff, same as in-person bullying.

Inalienable. Since status resides in the minds of others and is not something an individual can buy or create on their own (Milner, 2016), students may turn to cyberbullying to enhance their status and achieve the popularity they desire, same as in-person bullying. Paez (2018) found that low levels of peer acceptance led to higher rates of cyberbullying. Again, research findings suggest cyberbullying can enhance one's popularity (Wegge et al., 2016; Wright, 2014), and students spread rumors online because they want to be popular (Weber & Pelfrey, 2014). As mentioned before in conformity, popularity types and cyber behaviors were found to follow similar patterns as face-to-face behaviors (Wright, 2014). Milner's (2016) theory would suggest that cyberbullying is a method used to enhance the popularity of students who cannot buy or force their way into a more popular status group, a way to improve their reputation and gain recognition from those above them in the status hierarchy.

Inexpansable. Inexpansability refers to the hierarchy of groups (Milner, 2016). There can only be one most popular group, and there can be only one most popular group member. If a group gains popularity, another must go down. Similarly, if a member gains status, it comes at the expense of another member. Status is inexpansible. This sets up inter-group conflict and cyberbullying would be one way to maintain a group's position, the same as happens with traditional bullying. It also sets up intra-group cyberbullying if a lower member challenges a higher member's status within the group. While not the same context as online bullying, hate groups operating online often use cyberbullying and online harassment to target those they see as threats to their group (see Oksanen et al., 2014). Hate groups target those who are not members of their group, and they see themselves as the rightful dominant group in society. They exaggerate the differences between in-group and out-group members, and increase the prejudice against those out-group members, leading to violence against the outsiders (Oksanen et al.,

2014). While obviously not all status groups are hate groups, status groups according to Milner (2016) would operate in a similar fashion, exaggerating differences between the groups and leading to cyberbullying as a way to keep other groups from trying to claim the most popular position in the hierarchy.

Location. Not every school operates in the hierarchal fashion described by Milner (2016). According to Milner (2016), there are some schools that are more pluralistic in nature, where there are distinctive social identities, but equality and tolerance for those identities is valued and not a source of conflict. While not many pluralistic schools exist, Milner (2016) believes they are increasing over hierarchal types. Milner's (2016) original research took place from 1997 to 1999. In an update to his original data, he conducted observations in 2013 and 2014, which included a brief discussion on cyberbullying. Milner's (2016) observations from this time indicated students were aware of it happening to others, none of the students could provide concrete examples, and suggested most cases were not bullying but what students refer to as "drama." However, one student mentioned that most cases were online posts, like pictures, the student did not like and tried to have removed, which caused fighting, but they did not consider it to be bullying. Drama, in this sense, is a case of "interpersonal conflict or harassment that has become socially visible," which social media accentuates, turning the conflict into a 'spectator sport' (Milner, 2016, p. 239).

Previous research on traditional bullying has suggested that there are less opportunities for students to redefine their social identity due to fewer school transitions in rural areas leading to higher rates of bullying compared to urban and suburban areas (Rivara & Le Menestral, 2016). We know from previous research that there is significant overlap between traditional and cyberbullying (see Baldry et al., 2015; Casas et al., 2013; Festl et al., 2015; Juvonen & Gross,

2008; Modecki et al., 2014; Olweus, 2012; Orue & Calvete, 2019; Paez, 2018; Thomas et al., 2015;Waasdorp & Bradshaw, 2015; Weber & Pelfrey, 2014; Wegge et al., 2014; Zych et al., 2015b). Milner's (2016) research indicated smaller schools tended to be more hierarchal versus pluralistic, which means more group structures and less opportunities for change. His theory, particularly the element of inexpansability, would suggest rural students turn to cyberbullying as a way to enhance their status and gain popularity, more so than students in urban or suburban areas. Students in rural areas could use cyberbullying as a way to equalize the field, so to speak, and change the power differential in their favor through their use of social media and other apps to enhance their status and overcome the status limitations imposed by fewer school transitions which equals less status mobility.

Conclusion and Hypotheses

Milner (2016) predicted that harassment of the weak would be more common from those just above them in social ranking, or those who are 'wannabes,' rather than top elites in the social status system. But top elites may instigate the harassment, and his own data suggests there are "cases where relatively high-status students engage in this behavior" (Milner 2016, pg. 99). Milner (2016) concluded his own research is ambiguous and further studies were needed for clarification.

One of the goals of this research is the clarification of how status influences cyberbullying. In particular, this study tests two of Milner's (2016) elements: social association and inexpansibility. This research seeks to identify the individual popularity level of its participants and the groups they are associated with, to determine the social direction of cyberbullying. It also seeks to determine the level of rigidity in group structures and in individuals within those

structures, to determine how inexpansibility of structures inhibits or fosters cyberbullying behaviors.

Using Milner's theory, this research will test the relationship between status groups and online cyberbullying, specifically exploring the influence of status groups on likelihood of perpetration and victimization, and the impact of geographic location on prevalence rates. By using Milner's theory, this study will make three contributions: an empirical test of Milner's theory as it applies to cyberbullying; adding to the existing theoretical literature on cyberbullying, specifically examining the influence of peers and how power differential may play out differently online via status; and adding a new aspect of cyberbullying by examining how location impacts patterns of cyberbullying.

Hypotheses for this study are broken down into three levels: individual, group, and school environment.

Individual:

H1: High status individuals are more likely to engage in cyberbullying.

H2: Low status individuals are more likely to be cybervictims.

H3: The greater the distance between the high and low status individuals, the greater the likelihood of cyberbullying.

Group:

H4: Individuals in groups with a rigid status hierarchy are more likely to cyberbully.

H5: Individuals in groups with higher rates of social mobility are less likely to cyberbully.

H6: Individuals in groups that have high rates of social association with other out-groups' members will be less likely to cyberbully.

H7: Individuals in groups that have low rates of social association with other out-groups' members will be more likely to cyberbully.

School environment:

H8: Individuals attending rural schools will have higher rates of cyberbullying than those in urban or suburban schools.

H8a: Rural schools will have more rigid status structures than that of urban or suburban.

H8b: Rural schools' higher rates of cyberbullying will be mediated by the rigid status structures of their schools compared to urban or suburban.

CHAPTER THREE: METHODS

Introduction

Using Milner's (2016) theory of status relations, this study seeks to investigate the relationship between status group affiliation and rates of cyberbullying perpetration and victimization at the individual, group, and school environment levels. It will also examine the impacts of location on cyberbullying rates.

Research Design

Multiple variables were analyzed via multinomial logistic regression in relation to three reference categories: non-participant (Model 1), cyberbully and cyberbully/victim (Model 2), and cybervictim (model 3). A multinomial logistic regression was chosen due to nominal level for each of the three reference categories. Variables analyzed included: status group membership, rigidity of status, social direction of cyberbullying, location, gender, race/ethnicity, strain, feelings about high school, relationship with parents (parental detachment), attitudes towards bullying, and adult monitoring of internet use.

Research Questions and Hypotheses

This dissertation will address the following overarching research questions:

1. Does Milner's theory of status relations explain individual perpetration of cyber bullying?
2. Does Milner's theory of status relations explain individual victimization of cyber bullying?
3. Does Milner's theory of status relations provide an explanation for an altered power differential in cyberbullying compared to traditional?
4. Do rates of cyberbullying vary by location (rural, suburban, urban)?

5. Does Milner's theory of status relations explain any variations of rates of cyberbullying by location?

Hypotheses for this study are broken down into three levels: individual, group, and school environment.

Individual:

H1: High status individuals are more likely to engage in cyberbullying.

H2: Low status individuals are more likely to be cybervictims.

H3: The greater the distance between the high and low status individuals, the greater the likelihood of cyberbullying.

Group:

H4: Individuals in groups with a rigid status hierarchy are more likely to cyberbully.

H5: Individuals in groups with higher rates of social mobility are less likely to cyberbully.

H6: Individuals in groups that have high rates of social association with other out-groups' members will be less likely to cyberbully.

H7: Individuals in groups that have low rates of social association with other out-groups' members will be more likely to cyberbully.

School environment:

H8: Individuals attending rural schools will have higher rates of cyberbullying than those in urban or suburban schools.

H8a: Rural schools will have more rigid status structures than that of urban or suburban.

H8b: Rural schools' higher rates of cyberbullying will be mediated by the rigid status structures of their schools compared to urban or suburban.

Setting and Sample

The setting was a university in Southwest Virginia. The sample were undergraduate students in introductory classes in several departments. Classes sampled included Introduction to Sociology, Introduction to Astronomy, General Biology, and Principles of Economics. These introductory courses were selected because these courses represent a diverse representation of the student population. Enrollment in these classes vary but had over one hundred students per class, with some having up to 500 students enrolled.

Instruments

The survey was a compilation of several assessment tools. Status group questions came from Milner's (2016) study. Since there is no standard empirically based assessment tool currently for cyberbullying, this study utilized questions from a cyberbullying scale developed by Pachin & Hinduja (2015) which has preliminarily shown reliability and validity in ten different surveys of almost 15,000 students in the United States. Questions were modified slightly to shorten the length of the survey and enhance completion rates.

Data Collection

Data collection took place via one-time, online, anonymous, voluntary, self-report survey conducted through Qualtrics. Collection took place in introductory courses during the spring 2020 semester. The researcher emailed the professor on record to request permission to post a link to the survey in the class Canvas site, with a short introductory paragraph about the research. If the instructor granted permission, a follow-up email was sent to the instructor that included a hyperlink to a survey in Qualtrics. Respondents were informed of the study procedures and their

role at the beginning of the survey and were required to indicate they had read the informed consent prior to beginning the survey. No data was collected from participants under age 18.

Surveys were sent to twenty-three professors teaching sections of Introduction to Astronomy, Introduction to Sociology, Principles of Biology, and Principles of Economics. Combined, these classes had 4,348 students enrolled in them. Of the professors contacted, six did not respond to either the original email or the follow-up email requesting permission to distribute to the survey to their class. Two other professors responded after the data collection period had ended. Two professors declined to participate, citing COVID19 and increased online responsibilities of students. Thirteen professors agreed to distribute the survey to their 2,250 students. Three hundred and forty-six students responded to the survey. Sixty-six students started but did not complete the survey. Since there was not enough data completed to include in the analyses, these 66 respondents were not included in the final models. Another four students who were homeschooled were removed, as this study focused on students in school systems. This left a final sample of 273 students, a 12.13% response rate.

Operationalization of Variables

Dependent Variables

Cyberbully. Respondents were asked "Did you take part in cyberbullying another student(s) during high school?" and given a list of ten cyberbullying behaviors from which they could select multiple responses: "I posted mean or hurtful comments about another student(s) online about their race or color"; "I posted mean or hurtful comments about another student(s) online with a sexual meaning"; "I posted mean or hurtful comments about another student(s) online about their religion"; "I posted mean or hurtful comments about another student(s) online"; "I posted a mean or hurtful picture online of another student(s)"; "I posted a mean or

hurtful video online of another student(s)"; "I spread rumors about another student(s) online"; "I threatened to hurt another student(s) through cell text message or online"; "I created a mean or hurtful webpage or group about another student(s)"; "I pretended to be another student(s) online and acted in a way that was mean or hurtful to them". Respondents could select "I did not cyberbully other students." Respondents who selected any of the cyberbullying behaviors were classified as a cyberbully.

Cybervictim. Respondents were asked "Were you cyberbullied in high school?" and given the same list of ten cyberbullying behaviors from the previous cyberbully question, from which they could select multiple responses, or "I was not cyberbullied in high school." Respondents who selected they were a victim of any of the cyberbullying behaviors were classified as a cybervictim.

Cyberbully and Cybervictim. Respondents who selected any behaviors under both the cyberbully and cybervictim questions were classified as a cyberbully-victim and included in the cyberbully category. While some studies have shown cyberbully/victims to be a distinct category (see Dulmus et al., 2006; Felipe et al., 2010; Stein et al., 2007), a multinomial analysis on this data which included bully-victims as its own category showed no statistically significant differences between cyberbullies and cyberbully/victims on any dependent or independent variables, but did show significant differences between cyberbully/victims and cybervictims, justifying the inclusion of cyberbullies and cyberbully/victims as one category.

Non-participant. Respondents who selected "I did not cyberbully other students" and "I was not cyberbullied in high school" were classified as non-participants in cyberbullying.

Independent Variables

Status Group Membership. Respondents were asked to identify five groups or cliques in their school. They then were asked to rank them in terms of popularity from 1 to 5, with 1 being the most popular and 5 being the least popular group. Respondents were asked if they primarily associated with one of the five groups. If they selected yes, they were asked about their place in that group, with three options: "I was a leader in my group"; "I was a 'regular member' (not the most popular but not the least either)"; "I was a member, but I was not very popular." If they selected no, they were asked to identify which group they primarily associated with, and then rank that group's popularity compared to the previously mentioned five. They were also given the option to select "I didn't associate with any groups."

Responses to these questions were used to create an individual and group popularity score. Groups were classified into one of twelve categories, listed below with some of the descriptor words used to describe the groups provided by participants. An interview was held with a local high school student to help sort students into appropriate groups based on the descriptor words they used in their survey responses to ensure accurate placement into groups.

1. Athletic: athletes, jocks, basketball team, lacrosse
2. Academic: nerds, smart kids, geeks, AP kids
3. Performing arts: theater, band, drama, choir
4. Recreational: druggies, alcoholics, partiers, stoners, potheads, troublemakers, deviants
5. Nonsocial: uninvolved, outcasts, loner, outsiders, quiet, introverts, rejected, losers, weirdos
6. Popular: popular, preps, preppy, rich, pretty people, cool kids
7. Country: country, redneck, farmers, agriculture kids, hicks
8. Religious: Catholic kids, Mormons, Christians, church kids
9. Minorities: Asian kids, blacks, international students, Hispanics
10. Alternative: Emo, Goth, Gamers, Furries, Hippies, Anime
11. Other: Regular people, Normals, JROTC, LGBTQ+, location groups, class clowns/goofs, traditional students, poor/low income students
12. Mix: individuals who associated with multiple groups

An average popularity score for each group was created by taking the number of times each group was listed in each popularity score category (1 to 5). For example, athletes were listed as the most popular 88 times, second most popular 56 times, third most 44 times, the fourth most 20 times, and the fifth most 13 times. Then, the total number of times each group was listed in each category was weighted by a "popularity ranking score" (5 for most popular, 4 for second most, 3 for in the middle, 2 for second least, and 1 for least popular). For example, the average popularity score for athletes would be calculated by multiplying the popularity ranking score by the number of times athletes received that ranking (e.g. 5 times 88, 4 times 56, 3 times 44, etc.). These were then summed and divided by 1365 (the popularity score that would have been achieved if every student ranked one group as the most popular, which was given by total number of participants times 5). Those who listed they were in multiple groups were placed in group 12, Mix, and given a group score of .20, which is the average of all the other 11 category's popularity scores. The most popular groups were Athletes (.62), Popular (.39), Academic (.36), and Performing Arts (.34). Least popular were Religious (.02), Nonsocial (.04), Country (.05), Minorities (.06), and Alternative (.07). This relative ranking was discussed with the local high school student who confirmed that it was reflective of the rankings in her school.

To create an individual popularity score, the group popularity score was taken times the individual placement within the group (3 for most popular, 2 for regular member, 1 for least popular). Thus, a popular athlete would have a popularity score of 1.86 (.62 * 3 = 1.86), whereas an unpopular nonsocial student would have a popularity score of .04 (.04 * 1 = .04). The higher the score, the more popular the individual. Individual popularity scores ranged from .04 to 1.86, with an average score of .69. Individual popularity scores were then used to test hypotheses 1 and 2.

Social Direction of Cyberbullying. If a respondent indicated they were a cyberbully, they were asked to indicate if the student they bullied was: “More popular”; “Less popular”; “Same popularity as me, but not in my friend group”; “I bullied someone in my friend group”; “I bullied someone at a different school”; “I don’t know how popular the person I bullied was”; or “I don’t know the person I bullied.” If a respondent indicated they were a cybervictim, they were asked if their bully was of a higher, lower, or same ranking group as their own. They were also asked if the student was in their same group, if they were bullied by someone not at their school, if they didn’t know how popular their bully was, or if they didn’t know their bully. This was used to test Hypothesis 3.

Status Mobility. Respondents were asked three possible questions concerning rigidity. The first asked them if their school had groups/cliques or if it was more open association. Next, they were asked to assess how difficult it was to join a new group in their school, with responses ranging from 1=very difficult, to 5=very easy. Respondents were then asked if there was a new student in their high school, how difficult was it for them to join a group, with responses ranging from 1=very difficult, to 5=very easy.

Participants were then given an individual mobility score, which consisted of adding together their responses to the previous three questions. Responses were coded so that the higher the score, the more mobile the individual within the school. Individual scores ranged from 3 to 12. To create a mobility group score, respondents were sorted into three categories: rigid, medium, and mobile. Group placement was based on individual scores. Scores from 3 to 5 were classified as rigid, 6 to 9 as medium, and 10 to 12 as mobile. The higher the score, the more mobile the group structures within the school. Individual mobility scores were used to test Hypotheses 1 and 2, while group mobility scores were used for Hypotheses 4 and 5.

Social Association. Participants were asked "Was it normal or common for people to hang out with people not in their group?" with a yes or no response. They were then asked, "Did you hang out with anyone outside your group?" with a yes or no response. If they selected yes, they were asked where they primarily hung out with outside group members, with four responses: "School"; "School-related functions"; "Face to face outside of school"; and "Primarily online." To create a social association score for each participant, four groups were created based on students' responses to two of the questions: "Was it normal or common for people to hang out with people not in their group?" and "Did you hang out with anyone outside your group?". Those who answered yes to both questions were given a score of 4 for high social association. Those who answered no to the first question but yes to the second were given a score of 3, those who answered yes to the first but no to the second were scored 2, and those who answered no to both were given a score of 1 for low social association. This score was then used to test Hypotheses 6 and 7.

Location. To calculate the location of student's high schools, respondents were asked to provide the zip code for their high school. Using a 2019 database from the National Center of Education Statistics (NCES), I searched the zip code for each respondent and then classified them as urban, suburban, town, or rural. The database from the NCES is based on U.S. Census definitions and is used to classify schools for research and funding purposes. This variable and the rigidity group score were used to test Hypotheses 8, 8a, and 8b.

Control Variables

Gender. Respondents were given five options for gender identification. They were coded as follows: 1=male, 2=female, 3=transmale, 4=transfemale, and 5=other. A text option was given for individuals who select other to self-identify their gender.

Race/Ethnicity. Seven options were given for race/ethnicity: 1=white, 2=black/African American, 3=American Indian/Alaska Native, 4=Asian, and 5=Native Hawaiian/Pacific Islander, 6=Hispanic/Latino, and 7=Other. Those who selected "other" were given a text option of self-identifying their race/ethnicity.

Attitudes Towards Bullying. Participants were asked to select their agreement with eight different statements on a scale of strongly agree to strongly disagree. Statements include: "It bothers me to see others get picked on."; "It is important to be part of a group even if it means you have to be mean to some people."; "It's not a big deal to make fun of someone."; and "Some people deserve to be picked on." Responses were coded so that the higher the score, the higher the individual's pro-bullying attitudes. Lower scores indicated anti-bullying attitudes.

Monitoring of Internet Use. Participants were asked if an adult monitored their internet usage in high school. Responses will be coded 1=yes, 2=no.

Strain. Three variables were used to create a strain variable:

Outside Job. Respondents were asked if they had a job while in high school, with a yes or no response option. If yes was selected, they were asked how many hours estimated per week did they work, with several response options: 1 to 5, 5 to 10, 10 to 15, 15 to 20, or more than 20.

Grades. Respondents were asked what kind of grades they had in high school, with four response options: Mostly As and Bs; Mostly Bs and Cs; Mostly Cs and Ds; and Mostly Ds and Fs.

Pressure from schoolwork. Respondents were asked if they felt any pressure from schoolwork, with three response options: "A lot"; "A little"; and "Not at all".

Responses were coded so that the higher the score, the higher the strain on a student.

Feelings about School. Respondents were asked how they felt about their high school, with five response options: “I liked it a lot”; “I liked it a little”; “I was indifferent”; “I somewhat didn’t like it”; and “I didn’t like it at all”. A higher score indicated less attachment to the school, whereas a lower score indicated a higher attachment to school.

Parental Detachment. Participants were asked to select their agreement with eight different statements on a scale of strongly agree to strongly disagree. Statements include: “I found it easy to discuss problems with my parents or guardians”; “If I was in trouble I could have told my parents or guardians”; “My parents or guards nagged/bothered me”; and “My parents or guardians insulted me when they were angry with me”. Responses were coded so that a higher score indicated parental detachment, whereas a lower score indicated parental attachment.

CHAPTER FOUR: ANALYSIS AND RESULTS

Introduction

Multinomial logistic regression allows for the exploration of the relationship between several categories relative to multiple independent variables. Models were constructed to examine the relationship between cyberbullying categories and the independent variables of social association, individual popularity, group and individual mobility, location, while controlling for how each of these may be influenced by other variables. Model 1 focuses on cyberbullies and cybervictims in relation to non-participants. Model 2 focuses on cybervictims and non-participants in relation to cyberbullies. Model 3 focuses on cyberbullies and non-participants in relation to cybervictims. Model 3 is the reverse of Model 2, so the analyses are the same between the two. For that reason, only Models 1 and 2 are discussed in this chapter. Chapter 4 begins with the demographic variables and prevalence rates, then briefly explores a bivariate analysis between the independent variables and the dependent variables of cyberbullying. It ends with the multivariate analysis of cyberbullying.

Demographics and Prevalence Rates

Surveys were sent to thirteen professors who distributed it electronically via Canvas to 2,250 students in introductory classes in sociology, astronomy, biology and economics. The final sample consisted of 273 students, a 12.3% response rate. When compared to the university undergraduate population, the sample was relatively reflective of the student body. There was over-representative of white students. Black/African American students, those of two or more races, and Hispanics of any race were also slightly over-represented when compared to the undergraduate population. Asian students were slightly under-represented. These differences between these groups in the population and the sample are well within the expected margin of

error for a sample of this size. There were no respondents who identified as American Indian/Alaska Native or Native Hawaiian/Pacific Islander. Thus, with respect to race, only Whites appear to not reflect the student population; however, this overrepresentation may be because race and ethnicity were asked in one question. Because of this, individuals who identified as Hispanic could also select a race. Some individuals only identified as Hispanic, and others identified as Hispanic and Black/African American or Hispanic and White. Therefore, the percentages in Table 1 for the sample do not sum to 100%. It is also possible that the 2.4% of the undergraduate population that does not report a race are disproportionately white. These factors could account for the difference between the sample and the undergraduate population. Nevertheless, the sample does appear to over-represent white students so all results of the following analyses should be interpreted with this in mind. Table 1 reports the demographic characteristics of the sample compared to the university.

Table 1 Race and Ethnicity of Sample

RACE AND ETHNICITY	Sample	Undergrads
American Indian or Alaska Native	0%	0.1%
Asian	8.79%	10.3%
Black or African American	6.23%	4.3%
Hispanics of any race*	7.69%	6.8%
Native Hawaiian or Pacific Islander	0%	0.1%
Not Reported	0%	2.4%
Two or More Races	6.23%	4.8%
White	75.82%	64.2%

*percentages will equal more than 100 due to Hispanics who also identified as a race

More females than males responded to the survey. Females were overrepresented (53.8%) compared to the university undergraduate population (42.95%), and males were underrepresented (45.8% compared to 56.78%). In terms of bullying status, the majority of

students, 73.6%, identified as "Non-participants," never engaging in cyberbullying or being cyberbullied. Of those who were involved in cyberbullying, 5.1% were both cyberbully and cybervictim (included in the cyberbully category, see Chapter Three section for justification). Cyberbullies account for 1.1%, and cybervictims were 18.3% of respondents. Data were missing for 1.8% of respondents. The most frequently reported victim behaviors were "Someone posted mean or hurtful comments about me online" (16.1% of respondents), and "Someone spread rumors about me online" (15.4% of respondents). The most frequently reported cyberbully behavior was "I posted mean or hurtful comments about another student(s) online" (4.4% of respondents).

Cyberbullying

Looking at the bivariate relationship between race and cyberbullying status, we see there is not a statistically significant relationship ($\chi^2_{df=8} = 5.99$; $p = .648$). Approximately 22% of Asians, 18% of African Americans, 19% of Whites, and 6% of those identifying as two or more races were cybervictims (see Table 2). Approximately 7% of whites identified as a cyberbully, compared to 0% of African Americans and two or more races, and 9% of Asians.

Table 2 Bullying Group by Race

	Race					Total
	Missing	Asian	Black/ AA	White	Two Or More	
Non-Participant	5 62%	16 69%	14 82%	150 74%	16 94%	201
Cyberbully/BV	1 12%	2 9%	0 0%	14 7%	0 0%	17
Cybervictim	2 25%	5 22%	3 18%	39 19%	1 6%	50
Total	8	23	17	203	17	268

Consistent with previous studies, females were the majority of cybervictims (62%), however there was no statistically significant relationship between gender and cyberbullying status ($\chi^2_{df=2} = 1.51$; p =.470). Reported cyberbullies were split evenly between males and females. (see Table 3).

Table 3 Bullying by Gender

	What is your gender? - Selected Choice		
	Male	Female	Total
Non-Participant	95 78%	106 73%	201
Cyberbully/BV	8 7%	8 6%	16
Cybervictim	19 15%	31 21%	50
Total	122	145	267

The majority of students who responded were from suburban high schools (57.9%). Urban was the next highest at 22.3%, rural accounted for 10.6%, and town 8.1%. Data were missing for 1.1% of respondents (3 students). The majority of students stated their schools had groups and cliques (67.8%), with 32.2% responding their school was "more open." Although the relationship is not statistically significant using conventional standards ($\chi^2_{df=6} = 4.55$; p =.602), we see that cyberbullies tended to come from schools located in towns and rural areas (see Table 4). Conversely, victims were least likely to be in schools located in towns. It is important not to read too much into these results given the small sample and small cell frequencies, however.

Table 4 Bullying by Location

	Location Type of High School				Total
	Urban	Suburban	Town	Rural	
Non-Participant	44 75%	117 74%	17 77%	20 71%	198
Cyberbully/BV	3 5.2%	8 5.1%	3 13.6%	3 10.7%	17
Cybervictim	11 18.9%	32 20.4%	2 9.1%	5 17.9%	50
Total	58	157	22	28	265

Correlations

An examination of the correlations between the independent variables and each bullying group reveals several findings. First, none of the independent variables were correlated with bullying status at the bivariate level. However, for all three bullying groups, the independent variables of group structure, individual mobility, and social association are all significantly correlated with one another at the .01 level (see Table 5).

Table 5 Correlation Matrix N=218

	Cyberbully	Cybervictim	Non-Participant	Individual Popularity	Group Structures	Individual Mobility	Social Association
Cyberbully	1			-0.069	0.009	0.089	0.075
Cybervictim		1		-0.057	-0.021	-0.087	0.074
Non-Participant			1	0.091	0.014	0.028	-0.110
Individual Popularity	-0.069	-0.057	0.091	1	0.052	0.026	0.079
Group Structures	0.009	-0.021	0.014	0.052	1	.887**	.317**
Individual Mobility	0.089	-0.087	0.028	0.026	.887**	1	.359**
Social Association	0.075	0.074	-0.110	0.079	.317**	.359**	1
Location of HS	0.085	-0.040	-0.012	-0.008	0.038	0.042	-0.008

** Correlation is significant at the 0.01 level.

As group structure was calculated using individual mobility scores, it is expected that the two variables would be significantly correlated. Group structure and individual mobility calculated how much mobility was available to individuals within their school and groups. Social association examined if participants were mobile and associated outside their groups, or if they stayed within their spheres, so again, it is expected that social association would be correlated with both group and individual mobility.

Multivariate Analysis

As only one student identified as "other" in gender, that case was excluded from final analyses. No students identified as transmale or transfemale. Because of the small number of non-white students in the sample, analyses were conducted using a White/Non-White classification of race. There were not enough respondents who identified as Hispanic to make a meaningful comparison, so ethnicity was excluded from final analyses. And finally, because only three respondents self-identified as a cyberbully, they were combined with those who identified as cyberbully/victims were included with cyberbullies in the analyses (see Chapter Three for justification), creating three categories of users: cyberbullies, cybervictims, and non-participants.

The first analyses examined only the independent variables of individual and group rigidity, individual popularity score, social association, and location (see Table 6 and Appendix). Again, because Model 3 is the inverse of Model 2, only Models 1 and 2 will be discussed here. In Model 1, for cyberbullies compared to non-participants, no variables achieved statistical significance. Individual mobility (.065) and rigid group structure (.062) trended towards significance. For cybervictims compared to non-participants, individual mobility was significant at .030, and social association trended towards significance at .071 (see Table 7).

Table 6 Variables

INDIVIDUAL	
Individual Popularity Score	"Identify the group(s) you primarily associated with" + "What was your role within the group?"
Individual Mobility Score	"Did your school have groups & cliques?" + "How easy was it to join a new group?" + "How easy was it for a new student to join a group?"
Social Direction of Cyberbullying	"Was your cyberbully more or less popular than you?" + "Was your cybervictim more or less popular than you?"
GROUP	
Group Mobility Score	Individual Mobility Scores 3-5 = Rigid Individual Mobility Scores 6-9 = Medium Individual Mobility Scores 10-12 = Mobile
Social Association	"Was it common for students to hang out with people outside their group?" + "Did you hang out with anyone outside your group?"
SCHOOL ENVIRONMENT	
Location	Zip code of school
Group Mobility Score	Individual Mobility Scores 3-5 = Rigid Individual Mobility Scores 6-9 = Medium Individual Mobility Scores 10-12 = Mobile

Table 7 Model One Multinomial Logistic Regression analysis[a]

Variable	Cybervictims		Cyberbullies	
	Exp (B)	CI	Exp (B)	CI
Individual Popularity	0.711	0.377-1.340	0.508	0.164-1.576
Individual Mobility	0.668*	0.465-.961	1.791	0.965-3.325
Social Association	1.525	.964-2.412	1.593	.624-4.068
Rigid Group Structure	0.132	0.011-1.540	58.377	.811-4200.241
Medium Group Structure	0.271	0.060-1.232	7.051	0.683-72.749
Mobile Group Structure[b]				
Urban	1.105	0.318-3.847	0.582	0.101-3.348
Suburban	1.276	0.421-3.867	0.511	0.115-2.275
Town	0.572	0.094-3.495	1.402	0.219-8.974
Rural[b]				

a. The reference category is non-participant

b. This parameter is set to zero because it is redundant.

*significant at the .05 level

In Model 2, for cybervictims compared to cyberbullies, individual mobility was significant at .005, and both rigid group structure (.011) and medium group structure (.015) was significant. Social association, individual popularity, and any location type were not significant in either model (see Table 8).

Table 8 Model Two Multinomial Logistic Regression analysis[a]

Variable	Cybervictims		Non-Participant	
	Exp (B)	CI	Exp (B)	CI
Individual Popularity	1.399	0.406-4.818	1.968	0.635-6.104
Individual Mobility	0.373*	0.189-.737	0.558	0.301-1.037
Social Association	.957	.349-2.622	.628	.246-1.602
Rigid Group Structure	0.002*	2.120E-5-.242	0.017	.000-1.233
Medium Group Structure	0.039*	0.003-.528	0.142	0.014-1.463
Mobile Group Structure[b]				
Urban	1.900	0.258-14.020	1.719	0.299-9.895
Suburban	2.498	0.446-13.986	1.958	0.440-8.720
Town	0.408	0.037-4.518	0.713	0.111-4.566
Rural[b]				

a. The reference category is cyberbully

b. This parameter is set to zero because it is redundant.

*significant at the .05 level

However, after adding in the control variables (race, gender, pro-bullying attitudes, strain, parental detachment, feelings about school, and adult monitoring of internet use), the models change significantly. In Model 1, only race-White at .023 and parental detachment at .045 were significant for cyberbullies compared to non-participants. Feelings about high school (.072) trended towards significance. For cybervictims compared to non-participants, four variables were statistically significant: race-White (.030), parental detachment (.001), individual mobility (.033), and social association (.011). No other variables were trending toward significance (see Table 9).

Table 9 Model One Multinomial Logistic Regression analysis[a] with Controls

Variable	Cybervictims		Cyberbully	
	Exp (B)	CI	Exp (B)	CI
Individual Popularity	.778	.371-1.632	0.524	.149-1.845
Individual Mobility	.649*	.436-.965	1.762	.882-3.518
Parental Detachment	1.104**	1.039-1.173	1.113*	0.998-1.256
Strain	.872	.734-1.035	0.811	0.629-1.08
Pro-bullying Attitudes	0.931	.844-1.028	1.084	.923-1.273
High School Feelings	1.221	.893-1.668	1.574	.960-2.579
Social Association	2.097*	1.183-3.719	2.334	.768-7.092
Rigid Group Structure	.105	.007-1.531	55.223	.477-6388.987
Medium Group Structure	.274	.051-1.472	4.182	.290-60.358
Mobile Group Structure				
Urban	1.045	.259-4.220	2.359	.248-22.452
Suburban	1.666	.495-5.610	1.601	.218-11.747
Town	.571	.083-3.913	4.828	.449-51.882
Rural[b]				
Race-White	3.071*	1.112-8.483	24.594*	1.631-370.918
Gender-Male	.728	.320-1.658	.906	.237-3.468
Internet Monitoring-yes	.896	.387-2.079	.329	.062-1.736

a. The reference category is non-participant
b. This parameter is set to zero because it is redundant.
*significant at the .05 level
**significant at the .01 level

In Model 2, individual mobility (.008) and rigid group structure (.015) were significant for cybervictims compared to cyberbullies. Medium group structure (.065) and pro-bullying attitudes (.088) were trending towards significance. Once again, neither individual popularity nor any location type was significant in either model (see Table 10). To examine hypothesis 8a, a multinomial logistic regression was conducted with group structure as the reference group and location type as the independent variable. In Model 1, rigid group structure was the reference group. Model 2 had medium group structure as the reference, and Model 3 had mobile group structure. Location was not significant for any of the group structures in any of the three models.

Table 10 Model Two Multinomial Logistic Regression analysis[a] with Controls

Variable	Cybervictims		Non-Participant	
	Exp (B)	CI	Exp (B)	CI
Individual Popularity	1.484	.377-5.843	1.907	.542-6.707
Individual Mobility	.368**	.176-.773	.568	.284-1.134
Parental Detachment	.991	.887-1.108	.898*	.808-.998
Strain	1.076	.799-1.449	1.234	.940-1.618
Pro-bullying Attitudes	.859	.722-1.023	.923	.785-1.084
High School Feelings	.776	.458-1.315	.636	.388-1.041
Social Association	.898	.274-2.945	.428	.141-1.301
Rigid Group Structure	.002*	1.209E-5-.299	.018	.000-2.095
Medium Group Structure	.065	.004-1.187	.239	.017-3.452
Mobile Group Structure				
Urban	.443	.039-5.080	.424	.045-4.035
Suburban	1.040	.122-8.876	.625	.085-4.582
Town	.118	.007-1.976	.207	.019-2.225
Rural[b]				
Race-White	.125	.008-2.021	.041*	.003-.613
Gender-Male	.803	.188-3.427	1.104	.288-4.223
Internet Monitoring	2.725	.475-15.620	3.040	.576-16.041

a. The reference category is cyberbully
b. This parameter is set to zero because it is redundant.
*significant at the .05 level
**significant at the .01 level

Results

The likelihood ratio tests for Models 1 and 2 with control variables indicated that individual mobility (.009), parental detachment (.001), social association (.006), and race (.002) were the significant contributors to the model outcomes. Model fit was significant at .003 compared to the intercept only model.

Hypotheses 1 and 2 predicted that individual status would be related to cyberbullying perpetration and victimization. However, in no model was individual popularity score statistically significant. Individual mobility score was significant for cybervictims with and

without the inclusion of control variables when compared to non-participants. When including control variables, individual mobility was significant at p=.033 for cybervictims compared to non-participants and was significant at p=.008 in Model 2 when cybervictims were compared to cyberbullies. For Models 1 and 2, the higher participants scored on individual mobility, the less likely they were to be a cybervictim compared to non-participants and cyberbullies. Therefore, hypotheses 1 and 2 were partially supported, in that higher individual mobility (the easier it was to join new groups within a school) translated to a lower victimization rate.

Hypothesis 3 predicted that the greater the social distance between individuals, the greater the likelihood of cyberbullying. However, a simple frequencies analysis shows this is not the case. For cybervictims, only 23% reported their bully was more popular than them. Almost one-third (32.8%) reported their bully was at the same popularity level (either within their group or outside their group), and 26.2% stated their bully was less popular than they were (see Table 11). For cyberbullies, over half (50.1%) bullied someone at the same popularity level. Only 18.8% bullied someone less popular, and another 18.8% bullied someone more popular (see Table 12). Consequently, hypothesis 3 was rejected.

Table 11 Victim/Bully Popularity Frequencies

Bully	Frequency	Percent
More popular	14	23.0%
Less popular	16	26.2%
Same popularity	20	32.8%
Other	11	18.1%

Table 12 Bully/Victim Popularity Frequencies

Victim	Frequency	Percent
More popular	3	18.8%
Less popular	3	18.8%
Same popularity	8	50.1%
Other	2	12.6%

Hypotheses 4 and 5 predicted that the rigidity of group structures would impact likelihood of cyberbullying perpetration and victimization. When examining just the independent variables, group structures were not significant in Model 1, though rigid group structure trended towards significance in for cyberbullies compared to non-participants. In Model 2, rigid group structure (p=.011) and medium group structure (p=.015) were both significant when comparing cybervictims to cyberbullies. However, once control variables were included, only rigid group structure was significant in Model 2, comparing cybervictims to cyberbullies, at p=.015. Medium group structure was not significant but was trending toward significance at p=.065. In essence, participants who scored in the rigid group structure were less likely to be cybervictims compared to cyberbullies, and participants who were in the medium group structure were trending that way. The expected risk of being a cyberbully is much higher than for participants in the rigid group structure than those in medium or mobile group structures. More rigidity within the group then equaled less victimization but more perpetration, supporting hypotheses 4 and 5.

Hypotheses 6 and 7 predicted that social association would be a significant predictor of cyberbullying. When examining just the independent variables, social association was not significant in either model. When control variables were included, social association (p=.011) was significant for cybervictims compared to non-participants (Model 1) but was not significant in Model 2 comparing cybervictims to cyberbullies. The higher participants scored on social association, or the more likely they were to associate with individuals outside their group, the more likely they were to be cybervictims when compared to non-participants. Staying within one's group, in essence, equaled less cybervictimization, the opposite of what was predicted in hypotheses 6 and 7. Therefore these hypotheses were both rejected.

Hypothesis 8 examined the significance of location. However, in no model was location significantly related to cyberbullying. Hypothesis 8a predicted rural schools would have more rigid group structures than other location types. However, once again in no model was location type significant when compared to different group structures. Hypotheses 8b predicted that location's impact on cyberbullying would be mediated by rigid status structures. However, location had no significant impact on rates of cyberbullying in the analyses for 8, and location had no impact on group structures in 8a. As a result, hypotheses 8, 8a, and 8b were all rejected.

Conclusion

Hypotheses 1, 2, 4, and 5 were partially supported, showing some significance for the variables of social association, individual mobility, and group rigidity. Popularity scores and location were insignificant in all models. Hypotheses 3, 6, 7, 8, 8a, and 8b were all rejected. These findings will be discussed in Chapter 5.

CHAPTER FIVE: DISCUSSION AND CONCLUSION

The purpose of this research was to examine the applicability of Milner's (2016) theory of status relations as an explanatory theoretical framework for cyberbullying, as well as provide an empirical test of his theory. Milner's (2016) theory argues that teens are virtually shut out of political and economic power, so they organize their lives around status power. Status is often gained, maintained, or lost through gossip, rumors, secrets, and both physical and verbal harassment. Targets are those not in the teen's status group, and actions against the victims lower their status and discourage others from associating with them, thus enforcing boundaries between groups of high and low status. Because evidence suggests individuals recreate their social groups online (see Boyd, 2008), it is plausible that status groups online mimic those offline. Therefore, low status targets in traditional bullying would also be targets in online bullying, and rates of cybervictimization and perpetration would mirror those of in-person bullying.

Additionally, I aimed to examine the relationship between location and cyberbullying, which has previously not been explored in the literature. Milner's (2016) theory suggests that some schools are more hierarchal than others, and it follows from his theory that those schools would have higher rates of bullying as status is more pronounced between groups. Previous research suggested that slightly higher rates of traditional bullying found in rural schools was due to fewer school transitions and therefore less opportunities for students to redefine their social identity (Rivara & Le Menestral, 2016). Milner's (2016) theory would suggest rural schools then are more hierarchal in nature compared to other localities, leading to higher rates of bullying and, by extension, cyberbullying.

Partial support was found for Milner's (2016) theory, as the more mobile an individual was among groups, the less likely they were to be cybervictims, indicating a pluralistic

environment was less likely to have cyberbullying. In addition, the more rigid the group structures within the school, the more likely the respondent was to be involved in cyberbullying, especially among members within the same popularity level who associated with individuals outside their group boundaries.

Summary of Findings

A multinomial logistic regression explored several variables derived from Milner's theory, including social association, individual popularity, individual and group mobility, social direction of cyberbullying, and location as they relate to cyberbullying perpetration and victimization. Three models were explored in two analyses to see what, if any, status variables predicted cyberbullying perpetration and victimization. When only variables derived from Milner's theory are used to predict cyberbullying status, mobility of individuals within the school significantly differentiated cybervictims and non-participants where the more mobile an individual among groups, the less likely the respondent was to report he or she was a cybervictim rather than a non-participant. In addition, a student's mobility was related to being a cybervictim as compared to a cyberbully. Again, the more mobile an individual among groups, the less likely they were to be a cybervictim rather than a cyberbully. The rigidity of group structures also significantly differentiated cyberbullies from cybervictims, where the more rigid the school's structure, the less likely a respondent was to report he or she was a cybervictim rather than a cyberbully.

With the addition of control variables in the second analyses, some of the previous relationships changed. Control variables included gender, race, and variables to control for both strain and routine activities theories, which have previously been used to test cyberbullying perpetration and victimization. For routine activities, a variable was included that measured

guardianship by asking about adult monitoring of internet use in high school. For strain, variables included high school grades, pressure from schoolwork, and if the participant held a job while in high school and if so, how many hours per week they worked. Variables to control for participants feelings about school, parental detachment, and probullying attitudes were also included as controls.

Once these controls were included, model one showed only race-White and parental detachment as significant for cyberbullies compared to non-participants. However, cybervictims had four variables achieve statistical significance when compared to non-participants: race-White, parental detachment, social association, and individual mobility. In particular, the higher an individual's social association score, the more likely they were to report being a cybervictim compared to non-participants. In essence, the more individuals associated with others outside their group in a rigid group environment, the more likely they were to report being a cybervictim. However, the more mobile an individual was among groups in a more pluralistic environment, the less likely they were to report being a cybervictim compared to non-participants. Individuals who strayed outside their group boundaries were more likely to be victims of online bullying in rigid school structures, but individuals who were able to move freely between groups in pluralistic structures were less likely to be victimized.

In model two, comparing cybervictims to cyberbullies, individual mobility and rigid group structure were both significant. Again, the more mobile an individual was among groups in pluralistic schools, the less likely they were to report being a cybervictim rather than a cyberbully. In addition, the more rigid a group structure, the less likely the individual was a cybervictim compared to a cyberbully. Individuals who moved among groups were less likely to

be victimized in pluralistic environments, and individuals who were in more rigid group structures were more likely to cyberbully.

Discussion

Milner's (2016) theory suggests that status can explain the behavior of adolescents, including bullying. Support was found, at least partially, for both social association and inexpansibility, the two elements examined in this study. Milner (2016) implied that the more pluralistic the school, the less likely there is to be conflict. Individuals have the opportunity to move freely between groups, joining new ones as they please. This equals larger friend groups, and more flexible groups. In all models of this study, the more mobile the individual was within the school and group structures, the less likely they were to be victimized. Therefore, Milner's (2016) theory was supported in this aspect. The ability for individuals to change groups without conflict meant less cybervictimization. More flexibility between groups then equals less competition for status, indicating status as a resource is less important in the pluralistic school setting. Because of its diminished importance, cyberbullying as a means of gaining status is unnecessary, and therefore less present in these settings.

Milner's (2016) theory also argued that the more rigid the school structure, the more cyberbullying perpetration would exist as students vie for status resources. This study found support for that assertion. At the group level, individuals who were in more rigid groups were more likely to cyberbully. Therefore, the more rigid the school structure overall, the more likely cyberbullying was occurring. This supports Milner's (2016) assertion that competition for status is more likely to occur when peer groups are more rigid and there is more differentiation between groups. This also reflects the relationship between social mobility and deviance. When rates of social mobility are low, status differences between groups increase, elevating intergroup conflict.

Those who do not conform to group norms are labeled deviant and punished (Hawdon, 1996b). Cyberbullying is a means by which students attempt to increase their status in a competitive environment. Social association was closely related to group structure, as those who had higher association with individuals outside their groups in rigid group structures were more likely to be cybervictims. It seems then that in rigid environments, cyberbullies targeted those students who defied group boundaries by socializing outside their group. The more rigid the group structure, the more cyberbullying occurred, and the more individuals tried to associate outside their groups in these rigid structures, the more likely they were to be targets of cyberbullying.

While previous studies have suggested a relationship between location and traditional bullying rates (Rivara & Le Menestral, 2016), and Milner's (2016) suggested smaller rural schools were more hierarchal in structure, this study found no support for either hypothesis as they related to cyberbullying. In no model was location significantly tied to cyberbullying victimization or perpetration, and in no model was group structure tied to location. Finding no significant relationship between cyberbullying and location is not surprising, as cyberbullying is not location-dependent unlike traditional bullying. Traditional bullying relies on the victim and bully occupying the same physical space. A cyberbully and cybervictim do not need to occupy the same physical space for the bullying to occur. Any differences in rates of traditional bullying by location then would not necessarily translate into the online environment where a cyberbully can victimize anyone they come in contact with, and not just those occupying the same physical space as they occupy. The online environment allows for a significant increase in the number of potential targets. This reflects arguments made by Yar (2005) that location is a problem for those researchers who argue cybercrime is the essentially the same as traditional crime. As Yar (2005)

pointed out, there are important differences between the virtual and 'real' world that give support to the suggestion that cybercrime is unique and a distinctive form of crime.

Finding no significant difference in group structures by location, however, is surprising, and contrary to previous studies. Previous research has indicated differences in rural schools' structures compared to urban and suburban (Rivara & Le Menestral, 2016), and Milner's (2016) original research found structural differences by size of school, with smaller schools (usually found in more rural areas) more hierarchal than larger schools in the urban and suburban localities. The insignificant findings in this study may be due to the small number of respondents in rural and town localities. Urban and suburban respondents were the majority of respondents at 80.2% of survey participants. The large numbers of urban and suburban respondents likely skewed the data in favor of those locations, making analysis on rural and town localities inconclusive.

The insignificance of group structures by location could also suggest a convergence of sorts. As we spend more time online, our locations become less meaningful. For example, as cars and interstates became more widespread, remote regions like Appalachia have become available to anyone to explore and allow individuals to increasingly interact with someone not from their home area. Now with the internet, individuals can explore the world without leaving their home. The insignificant relationship between group structures and location could suggest that while still present, the rural/urban gulf could be shrinking. However, further research would be needed to explore if this is the case.

Milner (2016) predicted that harassment of the weak would be more common from those just above them in social ranking, or those who are 'wannabes,' rather than top elites in the social status system. But his own data suggested there were "cases where relatively high-status students

engage in this behavior" (Milner 2016, pg. 99). However, this research found that approximately half of students (50.1%) who admitted to engaging in cyberbullying were cyberbullying someone within their own popularity level. Victims also reported a slightly higher percentage (32.8%) were cyberbullied by someone within their own popularity ranking. Cyberbullying was disproportionately found among relative status equals.

This suggests that Milner (2016) was wrong about the "weak" as victims, as the majority of cyberbullying is taking place within friend groups or within groups at the same popularity level in the hierarchy. The social direction of cyberbullying appears differently in this study than Milner's (2016) predicted. However, that does not mean that the theory is not applicable. Among those students who admitted to cyberbullying, 43.8% said they were bullying someone not in their friend group, but at their same popularity level. This suggests a fight for higher status is occurring among different groups at the same popularity level, rather than the 'wannabes' preying on the weak as implied by Milner (2016), signifying the weak are not a suitable target to gain status, but rather victims within the same popularity level are more likely to confer status to the cyberbully.

In summary, this study found the more pluralistic the group environment (the more freely they can move between groups), the less likely they are to be victimized. However, individuals in rigid groups with strict boundaries are more likely to cyberbully, and they are bullying those at their same popularity level. Individuals who try to associate with others outside their friend group in rigid environments are more likely to be a cybervictim. It seems then, that individuals in rigid group structures are cyberbullying those within their groups who try to stray, in essence reinforcing the group boundaries for those members who dare to break the group norms.

Partial support then was found for Milner's (2016) theory, and therefore his theory cannot be conclusively dismissed as an explanation for cyberbullying. However, Milner's (2016) theory cannot also be conclusively shown to be an explanation for two reasons: this study was not a full test of his theory, only two of his elements, and full support of all variables for those two elements was lacking. It does show some promise as an explanatory framework for cyberbullying; however, further testing is needed.

Cyberbullying versus Traditional Bullying

This study asserted from the beginning that cyberbullying is no more than an extension of traditional bullying, given its significant overlap with traditional bullying found in previous research (Baldry et al., 2015; Casas et al., 2013; Festl et al., 2015; Juvonen & Gross, 2008; Modecki et al., 2014; Olweus, 2012; Orue & Calvete, 2019; Paez, 2018; Thomas et al., 2015;Waasdorp & Bradshaw, 2015; Weber & Pelfrey, 2014; Wegge et al., 2014; Zych et al., 2015b). However, some researchers have asserted that cyberbullying is unique for three reasons: audience, time, and anonymity (Selkie et al., 2016; Wang et al., 2009). As discussed in Chapter Two, anonymity refers to the possibility that the victim will not know who their bully is, given the many ways an individual can conceal their identity online. Time refers to the 24/7 nature of bullying. In traditional bullying, there is some escape when the student leaves the school for the day, but in online bullying there is no escape. Audience refers to the potential viewers of an incident. In traditional it is limited to the people present with the bullying takes place, whereas in cyberbullying a post can go viral or be shared, greatly expanding the potential audience that can witness a cyberbullying incident (Selkie et al., 2016; Wang et al., 2009).

This study found only partial support for Milner's (2016) theory, and it is conceivable that the three unique factors of cyberbullying may account for these differences, particularly the

factor of audience. No support was found for anonymity as a factor in this research, as only 8.2% of cybervictims reported not knowing who the identity of their cyberbully, and no cyberbullies reported not knowing their cybervictims. Time cannot be conclusively shown to impact cyberbullying in this research as no questions in the survey really addressed this aspect.

However, audience may be a significant element in cyberbullying, particularly for Milner's (2016) theory. As discussed in Chapter Two, in traditional bullying the audience is restricted to those who witness the incident. Others may hear about it later, but the immediate audience would be limited. However, in cyberbullying, the potential for a wide audience exists. An individual can screenshot a post and share it without the user's permission, and the potential for posts to viral mean the audience could reach much further than just school peers (Casas et al., 2013). This difference in audience may affect the utility of the theory, in that in traditional bullying, status is all about the audience. It matters who you target, and who sees the interaction, for your status to increase if you are the bully. And if you are the victim, it matters who witnesses the incident and who bullies you for your status to decrease. If the audience is wider than your school group in the online environment, it probably does not matter. That is, bullying someone and having the world know it may not increase your status any more than bullying someone and having only members of your group know about as the audience may not care who you are or who your victim is. Thus, these additional audience members may not be able to confer the popularity to you that you seek. Therefore, Milner's (2016) theory may be more applicable to in-person bullying. However, further research that explores these factors in relation to cyberbullying is needed.

These results lead me to question whether cyberbullying is in fact merely an extension of traditional bullying or if previous research is correct in that the unique factors of cyberbullying

make it a distinct form of victimization. Yar (2005) found cybercrime to be distinct from crime committed in person, and studies by Selkie et al., 2016 and Wang et al., 2009 certainly argue cyberbullying is its own form of bullying. It is worth further exploration, given the results of this research.

Limitations

As mentioned in chapter one, two potential limitations of this study include the use of self-report data and the timeframe of the bullying incidents studied. Problems with self-report data have been well-documented (Groves et al., 2009). Respondents can and will be dishonest, especially if they believe the researcher is looking for specific responses or if they do not want to admit to certain behaviors, in this case, cyberbullying. This can threaten the validity of the data collected. To attempt to compensate for these issues, the survey was online, voluntary, and anonymous, allowing respondents to exit without completion and without penalty. Approximately 90 participants did not fully complete the survey and were therefore excluded from analysis.

As for time frame, the study asked about incidents that occurred in high school, which means students had to recall incidents that took place a year or more prior to being surveyed. Issues with memory recall include omission and telescoping (Groves et al., 2009). Omission is leaving out events because they were either forgotten or the participants believe the events do not meet the criteria of the study, so they do not include them. Telescoping refers to recalling events that fall outside of the period the researcher is studying, which leads to an inflation of the numbers of events. To attempt to reduce the impact of omission and telescoping, the survey focused on whether or not cyberbullying occurred instead of asking about specific numbers, times, or dates.

The study also included a definition of cyberbullying and listed specific behaviors that fell within that definition for participants to select.

There is the possibility that by not asking about specific numbers/times/dates, that the responses received are not reflective of what was actually happening. By just asking if cyberbullying occurred, an individual could respond yes whether it happened just once, or over one hundred times during the course of high school. This could affect the usefulness of the theory and its application to cyberbullying. While the responses would be accurate, because cyberbullying did occur, status may not be involved with an incident where someone was cyberbullied once versus someone who was repeatedly targeted. Therefore, the ability to generalize the findings could be compromised.

A third unanticipated limitation was the appearance of COVID19. COVID19 is an illness, caused by a virus, and spread from person to person. It is a new illness that has rapidly spread throughout the world and infected over two and a half million in the United States, with over 126,000 dead as of July 1, 2020 (Centers for Disease Control, 2020). Because it can spread through close contact, it led to a massive shutdown in the U.S. of restaurants, bars, gyms, museums, universities and other public spaces. Many universities, including the one in this study, moved to a completely online delivery system for their classes after their spring break.

COVID19 significantly impacted recruitment for the survey. Originally, I had planned to visit classrooms personally to solicit participation. Instead, I had to rely on email solicitation of professors to get permission to send the survey to their students. Two professors declined to send to their students, citing COVID19. They felt their students were overwhelmed with online work and did not want to add to that burden. Six professors never responded to my emails, and two responded after the survey period had closed. This reduced my potential sample by

approximately one-half, from 4348 students to 2250. My final response rate was just over 12%, which could have significant impact on the generalizability of my findings, especially given the overrepresentation of white and female students compared to the population from which the sample was pulled.

COVID19 could have also biased responses in that it led to nostalgia about students' experiences in high school and a time when they could be with people other than their immediate family. Participants could have underreported incidents as a result, leading to lower prevalence rates. The opposite could also be true: having time to reflect on their high school experiences, participants could now be in a better place and have strong negative emotions about their time in high school, overreporting incidents leading to higher prevalence rates. Again, this study attempted to compensate for this by asking if cyberbullying occurred, and not how many times, with the hope that students would acknowledge that it occurred given that they did not have to report how often or report specific incidents.

Suggestions for Future Research

There are several suggestions for future directions in this research. Given that previous studies have found strong relationships between peer relationships, popularity, and bullying (Baldry et al., 2015; Burton et al., 2013; Hinduja & Patchin, 2013; Lee et al., 2018; Livazović & Ham, 2019; Mishna et al., 2009; Paez, 2018), future research should attempt to explain why this study found only partially significant relationships between peers, status, and cyberbullying. Is the online environment different, contributing to a different experience than in-person bullying, and how does that relate to popularity status and cyberbullying? Do the three unique factors of cyberbullying (time, anonymity, and audience) affect the relationship between status and

cyberbullying? Questions on these unique elements should be included in future studies to determine what, if any, impact they have on rates of cyberbullying and the influence of status.

In addition, future research should include questions on the two elements of Milner's (2016) theory not included in this study: conformity and inalienability. This study was only a partial test of his theory, and future research should include all elements to see if the interplay between them affects cyberbullying perpetration and victimization. In addition, it is recommended that questions on bullying perpetration and victimization be included in future studies. This study did not include bullying questions due to time constraints. The comparison of popularity status, peer relationships, bullying, and cyberbullying needs to be examined. Questions should also be included on the extent of bullying and cyberbullying in the school as a whole, which this study did not include. How much bullying and cyberbullying exists could better explain who is doing the bullying and why.

Future research should also examine some unique factors around popularity status and location in relation to cyberbullying. This study found no significant relationships between location and cyberbullying. It also found no support for Milner's (2016) assertion that rural locations would have more rigid status structures than urban environments. These future directions are also contingent on the sample of participants. In this study, this study's sample was college students. Results could be different if individuals who did not attend college were sampled. It is well known that bullying can impact academic achievement (StopBullying.gov, 2012), and therefore individuals heavily involved in bullying in high school may not have attended college. In addition, females and white students were overrepresented. All conclusions in this study, therefore, could change with a different or more representative sample.

Conclusion

As stated in Chapter One, the impacts of bullying are well-documented (StopBullying.gov, 2012) and preliminarily seem to also hold true for cyberbullying (Juvonen & Gross, 2008; Livazović & Ham, 2019; Pelfrey & Weber, 2013; Tokunaga, 2010; Waasdorp & Bradshaw, 2015; Weber & Pelfrey, 2014) with at least one study claiming cyberbullying is worse (Yanez et al., 2019). These effects can have life-long impacts on students, and it is imperative that prevention and intervention programs that target these behaviors be based on sound research that addresses root causes.

This study showed, at least in part, that popularity matters. Respondents who were more mobile between groups were less likely to be cybervictims. Respondents who were in rigid groups with strict boundaries were more likely to be cyberbullies, in essence reinforcing those boundaries, in particular for individuals at the same popularity level. Individuals who tried to stray out of their group in rigid environments were more likely to be victimized by individuals at their own popularity level, being punished for violating their group boundaries. It seems then that prevention and intervention programs may not want to target the more popular students, as suggested by Teunissen et al. (2012), but the schools where group boundaries are more clearly defined and reinforced, the hierarchal schools of Milner's (2016) theory. In effect, prevention efforts would need to break down the status hierarchy and push schools towards a more pluralistic environment to reduce cyberbullying.

COVID-19 presents challenges that may impact cyberbullying moving forward. As schools transition to more online learning and less face-to-face interactions, they are focused on increasing students' access to laptops and the internet, and ensuring students have access to food. With increased internet access comes increased opportunities for cyberbullying, and decreased resources to address the issue. Money is being targeted towards internet access to participate in

online learning and food delivery, and the possible impacts of cyberbullying are being ignored. However, while access and food are obviously important, cyberbullying can and should be addressed also. Initial research has shown cyberbullying to be on the rise during COVID-19 (Reader's Digest, 2020), with one organization reporting a 70% increase since the start of the pandemic (Gordon, 2020). Given previous research that showed the same effects on mental and physical health on students for cyberbullying as traditional bullying (Juvonen & Gross, 2008; Livazović & Ham, 2019; Pelfrey & Weber, 2013; Tokunaga, 2010; Waasdorp & Bradshaw, 2015; Weber & Pelfrey, 2014) with some research pointing to worsened effects (Yanez et al., 2019), addressing cyberbullying in the age of COVID-19 is paramount.

This research showed that internet monitoring was not significant in reducing cyberbullying, consistent with previous research, so parental monitoring of students or teacher check-ins would likely have no impact on cyberbullying. One potential way to address cyberbullying is through the curriculum directly, so that students who are participating even asynchronously would still be exposed to prevention efforts. Free resources exist online through many mediums; teachers can access many through government and other non-profit sites directed at cyberbullying prevention and intervention. Incorporating it into the curriculum as part of basic internet safety should happen as students who may not have had access before are now given access, as young as kindergarten.

The power of status in the lives of adolescents in particular cannot be ignored as the world around us moves to a more virtual environment with the threat of COVID-19 and environmental pushes to work remotely and reduce gas emissions. Students must learn to interact appropriately in this environment, and how to respond appropriately. As students transition to online learning, breaking the pattern of recreating social groups online must be a priority. Fostering more

inclusive spaces and encouraging pluralistic views over popularity can reduce cyberbullying incidents and promote tolerance and acceptance across a wide range of views, breaking the status hierarchy and negating the impacts of exclusion. This can and should be a priority as we move forward to more virtual lives, whatever the cause or reason.

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APPENDIX A: SURVEY

Status Groups and Bullying

Start of Block: Demographics and Location

Q1
Hello, I am researching cyberbullying that occurs during high school years, and I would like to invite you to participate in my study. The following information is provided to inform you of the research project that will be conducted by Lisa Yost, PhD candidate in the Sociology department.

PURPOSE OF THE STUDY: I seek to examine the influence of peers in cyberbullying. I will investigate individual and peer factors that may lead to perpetration and victimization of cyberbullying. I plan to apply the results of the study towards potential future publications. The total number of subjects will be determined by the number of completed web surveys and may range in the upwards of a few thousand. The pool of subjects will be based on the student population of several introductory undergraduate courses at Virginia Tech, which are comprised of a diverse population, including, but not limited, to variances in age, race, and gender.

PROCEDURES: You are being asked to participate in an online survey. The data collection will be based solely on the Qualtrics survey. The researcher will not have any face to face contact or interaction with you. Additionally, the researcher will not contact you in the future for any follow up questions. The length of the survey varies based on the self-reported answers provided by the respondents since it follows logic-driven questions that will not be applicable all respondents. If all questions are applicable to you and you answer them all, you will see 40 questions and should complete it in approximately 15 minutes. The survey is entirely online, so the respondents are not required to turn in a hard copy of their answers to the survey and have the freedom to take the survey at a setting of their choice.

Q2
RISKS: Potential risks to study participants are minimal. Discussion of bullying behaviors may be uncomfortable for some people. You may skip any question that causes you to discomfort, and you may discontinue the survey at any time. Since you will be asked to take the online survey at a time and place of your choosing, this may include the use of a public or shared computer. To reduce the risk of someone else viewing your responses to the survey, it is recommended that participants delete their browsing history or cache according to the instructions for their browser to ensure confidentiality of survey responses.

BENEFITS: There is a societal benefit of increasing the understanding the extent of cyberbullying. The results of this study will allow a new theory of cyberbullying to be empirically tested, and this theory can potentially help high schools design programs to address the growing concern of students bullying both in person and online. Thus, our research will allow a better understanding of what peer factors affect an individual's susceptibility to and motivation for engaging in bullying.

Q3
COMPENSATION: There is no compensation for participation in this project.

FREEDOM TO WITHDRAW: It is important for you to know that you are free to withdraw from this study at any time without penalty and can skip any questions without answering. VIII. Questions or Concerns Should you have any questions about this study, you may contact Lisa Yost at lryost15@vt.edu. Should you have any questions or concerns about the study's conduct or your rights as a research subject, or need to report a research-related injury or event, you may contact the VT IRB Chair Suzie Lee (irb@vt.edu) or the researcher listed above.

Q4
PARTICIPANTS CONSENT: By selecting "yes", I acknowledge I have read the Informed Consent Statement, the conditions of this project, that I am 18 years of age or older; I give my voluntary consent for participation in this project.

- ○ Yes, I consent to take the survey (1)
- ○ No, I do not consent (2)

Skip To: End of Survey If PARTICIPANTS CONSENT: By selecting "yes", I acknowledge I have read the Informed Consent Statemen... = No, I do not consent

Q5 What is your current age?

- ○ 18 (1)
- ○ 19 (2)
- ○ 20 (3)
- ○ 21 (4)
- ○ 22 (5)
- ○ 23 or older (6)

Q6 Did you attend a high school in the United States?

- ○ Yes (1)
- ○ No (2)

Skip To: End of Survey If Did you attend a high school in the United States? = No

Q7 What best describes your class rank?

- ○ Freshman (1)
- ○ Sophomore (2)
- ○ Junior (3)
- ○ Senior (4)

Q8 What is your gender?

- ○ Male (1)
- ○ Female (2)
- ○ Transfemale (3)
- ○ Transmale (4)
- ○ Other (5) _____

Q9 What ethno-racial would you use to describe yourself? (Check all that apply)

- ○ American Indian or Alaska Native (1)
- ○ Asian (2)
- ○ Black or African American (3)
- ○ Hispanic or Latino (4)
- ○ Native Hawaiian or Pacific Islander (5)
- ○ White (6)
- ○ Other (7) _____

Q10 What was the zip code of your high school?

- ○ 5 Digit Zip Code: (1) _____

Q11 About how many students were in your high school graduating class?

_____

End of Block: Demographics and Location

Start of Block: Attitudes Towards Bullying

Q12 I would now like ask you some questions about what you feel. There are no right or wrong answers for these questions. Please mark your agreement with each sentence below. Answer how you actually feel, not how people believe you should feel.

	Strongly disagree (1)	Somewhat disagree (2)	Neither agree nor disagree (3)	Somewhat agree (4)	Strongly agree (5)
Making fun of other students is just part of school. (1)	○	○	○	○	○
It bothers me to see others get picked on. (2)	○	○	○	○	○
It is OK to keep other people from joining a group. (3)	○	○	○	○	○
It is important to be part of a group even if it means you have to be mean to some people. (4)	○	○	○	○	○
It is wrong to start a fight with someone. (5)	○	○	○	○	○
Some people deserve to be picked on. (6)	○	○	○	○	○
Spreading rumors about someone is a good way to get back at them. (7)	○	○	○	○	○
Pushing others around is a way to get respect. (8)	○	○	○	○	○

End of Block: Attitudes Towards Bullying

Start of Block: Monitoring of Internet Use

Q13 The following questions will ask you about you and your life in high school.

Q14 Did some adult monitor your internet usage in high school? For example, did an adult view your computer browsing history, restrict access to certain websites or apps, or ask for the password for your computer, phone, or social media to view your online activity?

- ○ Yes (1)
- ○ No (2)

End of Block: Monitoring of Internet Use

Start of Block: Strain

Q15 Did you have a job when you were in high school?

- ○ Yes (1)
- ○ No (2)

Skip To: Q17 If Did you have a job when you were in high school? = No

Q16 About how many hours per week did you work?

- ○ 1-5 (1)
- ○ 5-10 (2)
- ○ 10-15 (3)
- ○ 15-20 (4)
- ○ More than 20 (5)

Q17 What kind of grades did you have in high school?

- ○ Mostly As and Bs (1)
- ○ Mostly Bs and Cs (2)
- ○ Mostly Cs and Ds (3)
- ○ Mostly Ds and Fs (4)

Q18 How did you feel about your high school?

- ○ I liked it a lot (1)
- ○ I liked it a little (2)
- ○ I was indifferent (3)
- ○ I somewhat didn't like it (4)
- ○ I didn't like it at all (5)

Q19 Did you feel any pressure from schoolwork?

- ○ A lot (1)
- ○ A little (2)
- ○ Not at all (3)

Q20 Please mark your agreement with each sentence below. Answer how you really feel, not how you think you should feel.

	Strongly disagree (1)	Somewhat disagree (2)	Neither agree nor disagree (3)	Somewhat agree (4)	Strongly agree (5)
There were topics I avoided discussing with my parents or guardians. (1)	○	○	○	○	○
I found it easy to discuss problems with my parents or guardians. (2)	○	○	○	○	○
I didn't think I could tell my parents or guardians how I really felt about some things. (3)	○	○	○	○	○
If I was in trouble, I could have told my parents or guardians. (4)	○	○	○	○	○
I openly showed affection to my parents or guardians. (5)	○	○	○	○	○
My parents or guardians nagged/bothered me. (6)	○	○	○	○	○
My parents or guardians insulted me when they were angry with me. (7)	○	○	○	○	○
My parents or guardians tried to understand my point of view. (8)	○	○	○	○	○

End of Block: Strain

Start of Block: Status Groups

Q21 Some high schools have a rigid status structure with lots of groups and cliques, and people tend to mostly interact with others in their group or clique. Other schools are more open and people associate with each other regardless of what group or clique they belong to. The following questions will ask you about your high school's status structure and ask you to describe it in some detail.

Q22 Did your school have groups/cliques or was it more open association?

- ○ Groups and cliques (1)
- ○ More open (2)

Q23 Please identify up to five groups/cliques that were in your high school (for example: athletes, nerds, preps, etc.) Even if your school was open and people would associate with each other regardless of what group they were in, there were probably still groups.

- ○ Group 1 (1) _____
- ○ Group 2 (2) _____
- ○ Group 3 (3) _____
- ○ Group 4 (4) _____
- ○ Group 5 (5) _____

Q24 How would students in your high school rank the five groups you mentioned previously in terms of popularity. (1=most popular group, 5=least popular)
_____ ${Q23/ChoiceTextEntryValue/1} (1)
_____ ${Q23/ChoiceTextEntryValue/2} (2)
_____ ${Q23/ChoiceTextEntryValue/3} (3)
_____ ${Q23/ChoiceTextEntryValue/4} (4)
_____ ${Q23/ChoiceTextEntryValue/5} (5)

End of Block: Status Groups

Start of Block: Social Association

Q25 Did you associate primarily with one of the previously mentioned five groups?

- ○ Yes (1)
- ○ No (2)

End of Block: Social Association

Start of Block: Association 1

Display This Question:

If Did you associate primarily with one of the previously mentioned five groups? = Yes

Q26 Which group?

- ○ ${Q23/ChoiceTextEntryValue/1} (1)
- ○ ${Q23/ChoiceTextEntryValue/2} (2)
- ○ ${Q23/ChoiceTextEntryValue/3} (3)
- ○ ${Q23/ChoiceTextEntryValue/4} (4)
- ○ ${Q23/ChoiceTextEntryValue/5} (5)

End of Block: Association 1

Start of Block: Association 2

Display This Question:

If Did you associate primarily with one of the previously mentioned five groups? = No

Q27 Identify the group(s) you did primarily associate with:

- ○ My group: (4) _____
- ○ I didn't associate with any groups (5)

Display This Question:

If Identify the group(s) you did primarily associate with: = My group:

Q28 Compared to the five groups you mentioned previously, how does your group rank with each:

	My group was more popular (1)	My group was less popular (2)	My group was about the same popularity (3)
${Q23/ChoiceTextEntryValue/1} (4)	○	○	○
${Q23/ChoiceTextEntryValue/2} (5)	○	○	○
${Q23/ChoiceTextEntryValue/3} (6)	○	○	○
${Q23/ChoiceTextEntryValue/4} (7)	○	○	○
${Q23/ChoiceTextEntryValue/5} (8)	○	○	○

End of Block: Association 2

Start of Block: Social Mobility

Q29 Which best describes your place in the group you most associated with:

- ○ I was a leader in my group (1)
- ○ I was a "regular member." I wasn't one of the most popular in it, but I wasn't one of the least popular either. (2)
- ○ I was a member, but I was not very popular. (3)

Q30 How difficult was it to change groups in your school?

- ○ Very difficult (1)
- ○ Somewhat difficult (2)
- ○ Neither difficult or easy (3)
- ○ Somewhat easy (4)
- ○ Very easy (5)

Q31 If there was a new student in your high school, how difficult was it for them to join a group?

- ○ Very difficult (1)
- ○ Somewhat difficult (2)
- ○ Neither difficult or easy (3)
- ○ Somewhat easy (4)
- ○ Very easy (5)

Q32 Was it normal or common for people to hang out with people not in their group?

- ○ Yes (1)
- ○ No (2)

Q33 Did you hang out with anyone outside your group?

- ○ Yes (1)
- ○ No (2)

Skip To: End of Block If Did you hang out with anyone outside your group? = No

Q34 Did you hang out with them primarily at:

- ○ School (1)
- ○ School-related functions (2)
- ○ Face to face outside of school (3)
- ○ Primarily online (4)

End of Block: Social Mobility

Start of Block: Cyberbully Victimization

Q35 The following questions will ask about your experiences with cyberbullying in high school. First we define or explain the word cyberbullying.
Cyberbullying is any behavior performed though electronic or digital media by individuals or groups that repeatedly communicates hostile or aggressive messages intended to inflict harm or discomfort on others.
In cyberbullying incidents, the identity of the bully may or may not be known. Cyberbullying can occur through electronically-mediated communication at school; however, cyberbullying behaviors commonly occur outside of school as well.

Q36 Were you cyberbullied in high school? Select all that apply.

- ○ Someone posted mean or hurtful comments about me online about my race or color (1)
- ○ Someone posted mean or hurtful comments about me online with a sexual meaning. (2)
- ○ Someone posted mean or hurtful comments about me online about my religion. (10)
- ○ Someone posted mean or hurtful comments about me online. (11)
- ○ Someone posted a mean or hurtful picture online of me. (3)
- ○ Someone posted a mean or hurtful video online of me. (4)
- ○ Someone created a mean or hurtful web page or group about me. (5)
- ○ Someone spread rumors about me online. (6)
- ○ Someone threatened to hurt me through a cell text message or online. (7)
- ○ Someone pretended to be me online and acted in a way that was mean or hurtful to me. (8)
- ○ I was not cyberbullied in high school. (9)

Skip To: End of Block If Were you cyberbullied in high school? Select all that apply. = I was not cyberbullied in high school.

Q37 If you were cyberbullied, was the person(s) who bullied you more or less popular than you?

- ○ More popular (1)
- ○ Less popular (2)
- ○ Same popularity level as me, but not in my group (3)
- ○ I was bullied by someone in my friend group. (4)
- ○ I was cyberbullied by someone not at my school. (5)
- ○ I don't know how popular my bully was. (6)
- ○ I don't know who my cyberbully was. (7)

End of Block: Cyberbully Victimization

Start of Block: Cyberbully Perpetration

Q38 Did you take part in cyberbullying another student(s) in high school? Select all that apply.

- ○ I posted mean or hurtful comments about another student(s) online about their race or color. (1)
- ○ I posted mean or hurtful comments about another student(s) online with a sexual meaning. (2)
- ○ I posted mean or hurtful comments about another student(s) online about their religion. (10)
- ○ I posted mean or hurtful comments about another student(s) online. (11)
- ○ I posted a mean or hurtful picture online of another student(s). (3)
- ○ I posted a mean or hurtful video online of another student(s). (4)
- ○ I spread rumors about another student(s) online. (5)
- ○ I threatened to hurt another student(s) through a cell text message or online. (6)
- ○ I created a mean or hurtful web page or group about another student(s). (7)
- ○ I pretended to be another student(s) online and acted in a way that was mean or hurtful to them. (8)
- ○ I did not cyberbully other students. (9)

Skip To: End of Block If Did you take part in cyberbullying another student(s) in high school? Select all that apply. = I did not cyberbully other students.

Q39 Was the student(s) you bullied in your same group, less popular than you, or more popular than you?

- ○ More popular (1)
- ○ Less popular (2)
- ○ Same popularity as me, but not in my friend group (3)
- ○ I bullied someone in my friend group (4)
- ○ I bullied someone at a different school (5)
- ○ I don't know how popular the person I bullied was. (6)
- ○ I don't know the person I bullied (7)

End of Block: Cyberbully Perpetration