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A developmental perspective on popularity and the group process of bullying

J. Loes Pouwels^{a,b,*}, Tessa A.M. Lansu^a, Antonius H.N. Cillessen^a

^a Behavioural Science Institute, Radboud University Nijmegen, Montessorilaan 3, 6525 HR Nijmegen, the Netherlands

^b Department of Psychology, Education and Child Studies, Erasmus University Rotterdam, Burgemeester Oudlaan 50, 3062 PA Rotterdam, the Netherlands

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ABSTRACT

Bullying is a group process in which youths have different roles (bully, assistant, reinforcer, defender, outsider, victim). Although many studies have examined the group process of bullying in childhood, few have examined the group process of bullying in adolescence. This paper addresses how the group process of bullying is different in adolescence than in childhood due to the greater importance of popularity in adolescence. We review studies on the prevalence of the bullying participant roles in adolescence and the social status and behaviors associated with them. We discuss practical implications for anti-bullying programs in secondary school and provide suggestions for further research.

1. Introduction

Bullying is a subtype of aggression in which one or more youths repeatedly attack, humiliate, or exclude other youths (victims) who have difficulties defending themselves (Salmivalli, 2010). In addition to the bullies and victims, peers participate in bullying situations in different bullying participant roles. There are two types of *followers* of the bullies: *assistants* and *reinforcers*. *Assistants* help the ringleader bully by attacking the victim. *Reinforcers* provide the bully positive feedback, for example, by providing an audience or by laughing at the victim. *Defenders* actively intervene in bullying situations and try to stop it or try to comfort the victim. *Outsiders* do not take sides with either the bully or the victim (Salmivalli, Lagerspetz, Björkqvist, Österman, & Kaukiainen, 1996).

Most previous research on the participant roles has been conducted with children. As a result, relatively little is known about the group process of bullying among adolescents. Physiological, social, cognitive and emotional changes in adolescence may impact the group process of bullying in different ways. For example, Troop-Gordon (2017) discussed various underlying causes of changes in the nature, progression, and consequences of peer victimization in adolescence, such as structural changes (e.g., school transition), socio-cognitive changes (e.g., maturity gap; focus on cliques), and physical changes (e.g., puberty). These changes may relate not only to peer victimization but also to the larger group process of bullying. One such change is the focus of this review article: the importance given to popularity.

In childhood, being popular is strongly related to being liked by peers, but this association becomes weaker with age (Cillessen & Mayeux, 2004). Popularity signifies reputation, power, and social dominance among peers (LaFontana & Cillessen, 1998) and can be an underlying motive for bullying behavior in adolescence (Sijtsema, Veenstra, Lindenberg, & Salmivalli, 2009). Studies across different ages have investigated the role of popularity in the group process of bullying (see, e.g., Duffy, Penn, Nesdale, & Zimmer-Gembeck, 2017; Pouwels, Lansu, & Cillessen, 2016; Salmivalli, 2010; van der Ploeg, Kretschmer, Salmivalli, & Veenstra, 2017; Yun & Graham, 2018).

Despite the fact that these previous studies have acknowledged the important role of popularity in the group process of bullying, their results have not been placed in a developmental perspective. The group process of bullying seems to vary between childhood and adolescence due to the greater importance given to popularity in adolescence and the increasing effectiveness of relational aggression to obtain popularity (Cillessen & Mayeux, 2004; LaFontana & Cillessen, 2010). This review article synthesizes how the role of popularity in the group process of bullying differs between childhood and adolescence. It should be noted that the changing role of popularity is one of several potential explanations for developmental changes in the group process of bullying. It is beyond the scope of this review article to address all possible causes but we recognize that other changes may play a role as well.

Below, we first provide a theoretical framework for popularity in adolescence. We then review recent studies with adolescents (secondary education, ages 11–18 years) showing that the importance

* Corresponding author at: Amsterdam School of Communication Research, University of Amsterdam, PO Box 15791, Amsterdam, 1001 NG, The Netherlands.

E-mail addresses: j.l.pouwels@uva.nl (J.L. Pouwels), t.lansu@psych.ru.nl (T.A.M. Lansu), a.cillessen@psych.ru.nl (A.H.N. Cillessen).

attached to popularity in adolescence may be related to (a) the prevalence of the participant roles (i.e., increases in bullying/following and decreases in defending with age), and (b) the social status profiles of the participant roles at this age (i.e., increasing associations of bullying with popularity with age). The reviewed studies used a peer nomination measure of classmates' involvement in general bullying situations, such as the participant role questionnaire (Salmivalli et al., 1996). Finally, we discuss practical implications and suggestions for further research from developmental, methodological, and contextual perspectives.

2. A theoretical framework of popularity in adolescence

Popularity is increasingly important to youths as they move from childhood to adolescence. Sullivan's (1953) theory of interpersonal relationships describes a developmental shift from prioritizing friendships in childhood, to peer popularity in adolescence, to intimate relationships in emerging adulthood. Indeed, being popular is increasingly important when youths enter adolescence (LaFontana & Cillessen, 2010). LaFontana and Cillessen (2010) presented youths with multiple dilemmas in which being popular was opposed to other social priorities, such as friendship and following rules. Findings revealed that especially in early adolescence, youths prioritized being popular over other social goals.

Why is popularity so important in adolescence? One reason may be the increase in self-consciousness and imaginary audience behavior in adolescence (e.g., Adams & Jones, 1981). In particular through the physical changes of puberty, youths are increasingly aware of how they are seen by others. They want to be seen positively and desire to be popular.

Resource control theory (Hawley, 2003) states that popular youth are dominant and superior in attaining resources. One resource that becomes increasingly important to adolescents after the beginning of puberty is attention from other-sex peers. Popular youths receive such attention (de Bruyn, Cillessen, & Weisfeld, 2012), and hence popularity becomes a way to attain this valuable resource (e.g., in the competition for mates). In addition to attention from other-sex peers, other resources that can be attained through popularity are access to parties and other material and immaterial rewards.

Although youths' motivation to be popular in general increases in adolescence (LaFontana & Cillessen, 2010), resource control theory states that not everyone can have a high position in the dominance hierarchy, and thus not all adolescents can be popular. Youths who pursue popularity should therefore behave strategically in order to become part of the small group of highly popular youth. In adolescence, youths' social intelligence and skills further develop and they better understand the hierarchy of the peer group. Increases in social intelligence lead them to better understand their peers' thoughts and beliefs. These changes allow adolescents to use relational aggression effectively, which can increase their popularity (Cillessen & Mayeux, 2004; Ojanen & Findley-Van Nostrand, 2014). LaFontana and Cillessen (2010) argued that youths discover the effectiveness of a bi-strategic control strategy in adolescence. This resource control strategy combines coercive behavior such as (relational) aggression with prosocial control strategies and is an effective way to become dominant or popular (Hawley, 2003). In contrast, prosocial control strategies alone, seem to be less effective than coercive and bi-strategic strategies to obtain popularity in adolescence (Reijntjes et al., 2018). We speculate that the insight that the use of bullying as part of a bi-strategic control strategy may be an effective way to attain popularity may explain an increase in the prevalence of bullying with age.

Another perspective is provided by Moffitt's (1993) developmental taxonomy of antisocial behavior. According to this model, adolescents value antisocial behaviors because they experience a maturity gap. Adolescents become biologically mature, but remain socially dependent on adults. Youths experience this gap around the time they transfer

from primary to secondary school, when they enter a new peer group with older youths in which antisocial behavior is more common (Moffitt, 1993). They may imitate these more "adult-like" behaviors of their older peers to obtain a sense of increased autonomy and adult status (Moffitt, 1993). As a result, adolescents become attracted to aggressive peers (such as bullies and followers) and less attracted to prosocial peers (such as defenders) (Bukowski, Sippola, & Newcomb, 2000). Therefore, based on this evidence, it can be expected that bullies are more popular in adolescence than in childhood, whereas defenders are less popular.

Taken together, as adolescents increasingly value popularity and may learn that aggression (but not solely prosocial behavior) is an effective way to attain it (LaFontana & Cillessen, 2010), popularity becomes more strongly related to aggression (Cillessen & Mayeux, 2004). Extending this to the participant roles of bullying, we expected the prevalence of bullying/following to increase and the prevalence of defending to decrease across the transition into adolescence, as they are forms of aggression and prosocial behavior, respectively.

3. Prevalence of the participant roles in adolescence

In a recent Dutch study, the prevalence of the participant roles in middle adolescence was 9% bullies, 24% followers, 19% defenders, 24% outsiders, 10% victims, and 14% without a clear role (Pouwels et al., 2016). The bully and follower roles were more common for boys than girls, whereas the defender and outsider roles were more common for girls than boys. These findings correspond with the fact that (overtly) aggressive behaviors are more normative for boys, whereas prosocial behaviors are more normative for girls (Eagly & Wood, 1991; Underwood, 2003).

The theoretical framework that adolescents increasingly value popularity and learn that aggression (but not prosocial behavior) is an effective way to attain it leads to several expected age differences in the prevalence of the participant roles. Our first expectation was that adolescents increasingly use bullying/following as goal-directed behaviors to achieve popular status. This expectation has been confirmed by several studies. Salmivalli, Lappalainen, and Lagerspetz (1998) compared the prevalence of the participant roles of Finnish lower-grades secondary school students (Grade 8) with their prevalence two years earlier in primary school (Grade 6). Indeed, assistants were more common (13% vs. 6%) in Grade 8 than in Grade 6. Pouwels et al. (2016) also identified more followers (24%) in a Dutch sample of upper-grades secondary school students (Grades 9–12) than in a different Dutch sample of primary school students (Grades 3–4) studied by Goossens, Olthof, and Dekker (2006) (16% followers). These studies suggest grade differences in the prevalence of some participant roles between primary school and the lower and upper grades of secondary school. However, the samples of these studies differed in location, measurement of the roles, and criteria for the roles. Thus, the comparison of the age groups was confounded with other study characteristics, making the comparison somewhat inconclusive. Pouwels, van Noorden, Lansu, and Cillessen (2018) were able to directly compare the prevalence of the participant roles within one and the same study between primary school, the lower grades of secondary school, and the upper grades of secondary school (see Fig. 1). In this study, the bullying and follower roles were indeed more common in adolescence than in childhood (Pouwels, van Noorden, et al., 2018).

Several studies suggest that this age change may be related to the increasing value of popularity in adolescence and to the effectiveness of aggression to obtain popularity. Ojanen and Findley-Van Nostrand (2014) found that youths with an agentic orientation aimed at peer status increase in relational aggression over time. Duffy et al. (2017) found that adolescents who prioritize popularity engage in bullying to increase their popularity. Further, adolescents who want more status for themselves reinforced or assisted a high-status bully (Juvonen & Galván, 2008). In line with resource control theory, early adolescent

Fig. 1. Prevalence of the participant roles of bullying for boys and girls in primary school (Grades 4–6), the lower grades of secondary school (Grades 7–8), and the upper grades of secondary school (Grade 9–11). Data adapted from Pouwels, van Noorden, et al., 2018.

bullies used bullying as a strategic behavior to acquire social dominance (Olthof, Goossens, Vermande, van der Meulen, & Alewa, 2011). Thornberg (2015) also found that most adolescents indicate that youths bully because they want to obtain status and power in the peer group. Thus, several studies support the idea that priority of popularity seems to drive bullying behavior in adolescence, making it a possible explanation for why bullying and following are more prevalent in adolescence than in childhood (Pouwels, van Noorden, et al., 2018), as youths prioritize popularity more strongly in adolescence than childhood (LaFontana & Cillessen, 2010). It is important to mention that the current bullying literature cannot directly confirm this idea, as developmental changes in the prevalence of bully/follower roles have not yet been associated directly with developmental changes in the underlying motivation for bullying, such as the prioritization of popularity.

Importantly, the increase in bullying/following by grade was only found for girls (Pouwels, van Noorden, et al., 2018). This may be explained by the fact that relational aggression is more strongly correlated with popularity for girls than for boys in adolescence (Cillessen & Mayeux, 2004), which may lead girls to increase their relational aggression as they get older. Indeed, in one study girls were more likely than boys to increase in relational aggression from childhood to early adolescence (Vaillancourt, Miller, Fagbemi, Côté, & Tremblay, 2007). Thus, for girls the increase in bullying and following with age may reflect an increase in relational aggression. However, it should be noted that the participant role questionnaire does not distinguish between different types of bullying.

In contrast to an increase in bullying and follower behavior, the second expectation was that defending becomes less prevalent as youths get older. As adolescents in general find it important to be popular (LaFontana & Cillessen, 2010), they may refrain from defending because it is risky – defending a low-status peer may come with a cost for one's own status (Meter & Card, 2015). Indeed, in one study, early adolescents who prioritized popularity over other social goals were unlikely to be defenders (Duffy et al., 2017). Despite the fact that youths' priority of popularity increases with age (LaFontana & Cillessen, 2010), a comparison of the prevalence of defending across studies suggests that there are no or only small age differences in defending (Goossens et al., 2006; Pouwels et al., 2016; Salmivalli et al., 1998). However, this weak effect may be due to the fact that gender was not taken into account in the comparison, as Pouwels, van Noorden, et al. (2018) found that an age difference in the prevalence of defending only

exists for boys. The finding that the lower prevalence of defending in adolescence than in childhood only applied to boys (Pouwels, van Noorden, et al., 2018), may be explained by stronger increases in prioritizing popularity over prosocial behavior with age for boys than for girls (LaFontana & Cillessen, 2010) and a stronger negative association between prioritizing popularity and defending for boys than girls (Duffy et al., 2017).

4. Social status and behavior profiles of the participant roles in adolescence

There are empirical indications that the participant roles have unique status characteristics in adolescence. Bullies are popular in both primary and secondary school (Caravita, Di Blasio, & Salmivalli, 2009; Caravita, Gini, & Pozzoli, 2012; Duffy et al., 2017; Peets, Poyhonen, Juvonen, & Salmivalli, 2015; Pronk et al., 2017). In primary school, defenders are popular, like bullies (Peets et al., 2015; van der Ploeg et al., 2017), but Dutch adolescent defenders were not particularly popular in secondary school (Pouwels et al., 2016; Pronk et al., 2017). Some studies have shown that bullying is more strongly related to popularity among boys than among girls, whereas defending is more strongly related to popularity among girls than boys in middle school (Duffy et al., 2017). Other studies found fewer gender differences in the popularity profiles of bullies and defenders in middle school (Caravita et al., 2009).

Some studies directly compared the peer status of bullies and defenders between age groups. In general, the differences in popularity between the roles were larger in adolescence than in childhood. Specifically, in adolescence, bullies and followers were more popular and defenders were less popular than in childhood (Caravita et al., 2009; Caravita et al., 2012; Pouwels, van Noorden, et al., 2018). These age differences were similar for boys and girls.

In order to get an idea of the characteristics that underlie the peer status of each participant role, it is important to address the behaviors and characteristics of the roles in addition to their popularity. The popularity of adolescent bullies is reflected in their social status and behavior profiles. Pouwels et al. (2016) found that in middle adolescence, bullies were highly popular but disliked by their peers, and displayed low levels of prosocial behavior and high levels of aggression. Followers were less popular and aggressive than bullies, but more popular than defenders, outsiders, and victims and more aggressive than defenders and outsiders. Moreover, they were better liked and

more prosocial than bullies and victims. Defenders were the most liked and prosocial of all roles. They scored average on popularity and low on aggression. Outsiders were neither liked nor disliked. They were relatively unpopular, but not as unpopular as victims. Outsiders displayed average levels of prosocial behavior and low levels of aggression. Victims had the lowest status as they were unpopular and disliked. In contrast to outsiders, victims displayed low levels of prosocial behavior and high levels of aggression.

In addition to being a bully or victim, children may also have a secondary role. Although secondary roles have only been considered in a few studies, there are indications that the status profiles of the participant roles depend on youths' secondary role. For example, bullies of the same victims tend to defend each other (Huitsing, Snijders, van Duijn, & Veenstra, 2014). Of all roles, bullies are most likely to display bully-oriented defending; a type of defending that may be used to protect other bullies and that is strongly associated with popularity. In contrast, non-bullies may be more likely to display victim-oriented defending; a type of defending that is aimed at comforting victims and that is not related to popularity (Reijntjes et al., 2016). These findings suggest that adolescent bullies may defend each other as part of a bistrategic control strategy to maintain their popularity or increase it further. In contrast, pure defenders may provide help only to benefit a victim without looking for an advantage for themselves. Although using a bistrategic control strategy is not the only way to become popular, it does seem to be one of the most effective ways (Hawley, 2003; Reijntjes et al., 2018).

5. Developmental trajectories of social status and behavior

For prevention purposes it is important to understand how childhood trajectories of social status and behavior are related to bullying participation in adolescence. For example, as bullies are popular and aggressive in adolescence, one may try to prevent adolescent bullying by targeting popularity and aggression in childhood. However, this does not make sense if bullies who are popular and aggressive in adolescence were not also popular and aggressive earlier in their development. The behaviors and characteristics associated with popularity and the motivation to be popular change with age; therefore earlier developmental trajectories of status and behavior may not correspond with concurrent profiles of status and behavior in adolescence. From a prevention perspective, it thus is important to assess the status and behavior profiles earlier in development of youths who are later in each of the participant roles.

A recent study showed that adolescents in each participant role follow a unique developmental path of peer group social status (likeability and popularity among classmates) and behavior (aggression and prosocial behavior) throughout childhood and early adolescence (Pouwels et al., 2018). This study clustered youths based on trajectories of social status and behavior across middle childhood and early adolescence. It was then examined whether certain trajectories were associated with the participant roles in adolescence. The following trajectories for each role were found.

Adolescent bullies and followers were relatively popular in childhood and early adolescence and displayed high levels of overt aggression in childhood, which decreased over time. This developmental decrease of overt aggression in bullies and followers may reflect a shift in the use of different types of aggression. Although the distinction between overt and relational bullying is often not made in participant role research, research on aggression has revealed a subgroup of youths who substitute or supplement overt aggression with relational aggression when they get older (Côté, Vaillancourt, Barker, Nagin, & Tremblay, 2007; Vaillancourt et al., 2007). Thus, bullies may shift from overt types of aggression in childhood to more relational types in adolescence. This could explain why bullies are more popular in adolescence than in childhood (Pouwels, van Noorden, et al., 2018), because in adolescence, relational aggression seems to be more effective than overt

aggression to obtain popularity (Cillessen & Mayeux, 2004; Ojanen & Findley-Van Nostrand, 2014).

Most adolescent defenders and outsiders were nonaggressive throughout their earlier development, and most adolescent defenders were liked by their peers in childhood and early adolescence. Adolescent victims had been unpopular and disliked by peers throughout childhood and early adolescence. These findings demonstrated that youths' developmental trajectories of social status and behavior across childhood and early adolescence predict their bullying role involvement in adolescence.

6. Summary

Recent studies have shown that the group process of bullying differs between childhood and adolescence. The prevalence of bullying/follower behavior is higher in adolescence than in childhood. We proposed that this increase in the number of youth being involved in bullying can be explained by the increasing value of popularity in adolescence, and the use of aggression as an effective way to attain it. In addition to the prevalence of bullying, the association of bullying with popularity changes with age. Although bullies and followers are quite popular throughout childhood and adolescence, they are particularly popular in adolescence. The fact that defending may be less effective than bullying to obtain the desired high popularity status may explain why the prevalence of defending behavior is lower in adolescence than in childhood (for boys).

7. Practical implications

Understanding the group process of bullying in adolescence has implications for anti-bullying programs. Researchers and policy makers agree that bullying should be targeted at the level of the entire peer group. In primary school, such anti-bullying programs (e.g., KiVa) effectively reduce bullying and victimization by increasing bystanders' support for victims (Salmivalli, Kärnä, & Poskiparta, 2011). Unfortunately, existing anti-bullying programs are less effective in secondary school than in primary school (Yeager, Fong, Lee, & Espelage, 2015). This may be because bullying is more rewarded with popular status at this age (Pouwels et al., 2016). This reward may make bullying harder to change in adolescence, as bullies may not want to give up their popularity. This is supported by the finding that anti-bullying programs are less successful in reducing bullying among popular youths than among unpopular youths (Garandeau, Lee, & Salmivalli, 2014). In addition, programs that aim to reduce bullying by promoting defending are less successful in secondary school than primary school (Kärnä et al., 2013). As defending is not rewarded by popularity in adolescence, adolescents may refrain from it, even when they believe it is the right thing to do. Addressing the association between popularity and the participant roles seems key to making prevention and intervention programs more effective in adolescence. One promising way to address this association is to teach adolescents alternative, prosocial ways to become popular. This is the aim of the meaningful roles program that assigns bullies together with prosocial youths to meaningful prosocial roles in the classroom and in which prosocial behaviors are praised publicly by peers (Ellis, Volk, Gonzalez, & Embry, 2016).

8. Suggestions for further research

8.1. Developmental suggestions

Further research should examine how the age differences in the popularity profiles of the participant roles are related to developmental changes in social motives. We proposed that the age differences in the prevalence of the roles are related to age differences in the motivation to be popular (LaFontana & Cillessen, 2010) and in the belief that bullying and following can lead to popularity, whereas defending is

risky for one's status (Meter & Card, 2015).

This review focused on studies measuring the participant roles and social status concurrently in adolescence. The longitudinal trajectory study revealed that adolescent bullies were more likely than the other roles to be popular in childhood and early adolescence (Pouwels, Salmivalli, et al., 2018). However, we still do not know whether adolescent bullies or followers were already bullies or followers in childhood, and then gradually increased in popularity from childhood to adolescence. Or, whether youths who were relatively popular in childhood but not yet involved in bullying gradually became bullies in adolescence. In order to answer these important developmental questions, future research needs to examine both participant role involvement and status longitudinally throughout childhood and adolescence.

Even though the changing role of popularity during adolescence was the main focus of this review, other developmental changes may also impact the group process of bullying. The different changes that take place during adolescence cannot be seen in isolation from each other. For example, there is an increased attraction to more aggressive, cross-sex peers during adolescence (Bukowski et al., 2000), which could explain why bullies/followers are more popular than defenders among other-sex peers in the lower-grades of secondary school, but not yet among same-sex peers (Pouwels, van Noorden, et al., 2018). In addition, as older students may be better able to defend themselves than younger students due to socio-cognitive changes, a smaller group may be victimized in adolescence than in childhood (Pellegrini & Long, 2002). This small group of victims often has a low peer status and their peers often do not want to affiliate with them, as they may be afraid to lose status or become the next target of victimization. As a result of victims on average having a lower social status in early adolescence than in childhood (Pouwels, van Noorden, et al., 2018), it may be less likely that victims are defended by their peers in adolescence. Thus, even though we focused on the changing role of popularity, other potential causes of changes in the group process of bullying in adolescence, such as increased attention to other-sex peers and youths having more advanced social in adolescence than in childhood, could be integrated with our perspective. Future research should extend our ideas to other developmental changes underlying age differences in the group process of bullying.

8.2. Methodological suggestions

Traditionally, the distinction between victims and bully-victims has not been made in the participant role approach (Goossens et al., 2006; Salmivalli et al., 1996). The bully-scale of the participant role questionnaire focuses on ringleader bullying behavior (e.g., “Who makes others join in the bullying?”; “Who always finds new ways of harassing the victim?”). Ringleader bullying behavior may be less common for bully-victims than pure bullies. It is unlikely that bully-victims make peers join in the bullying because they do not have the status or the socio-cognitive skills needed to influence their peers in that way. Because the participant role questionnaire focuses primarily on ringleader bullying, it may be unsuitable to measure the bully-victim role.

Because the participant role questionnaire seems to primarily measure ring-leader bullying, the strong link of bullying with popularity applies to ringleader bullying and cannot be generalized to the behaviors of bully-victims. Previous research suggests that the distinction between bullies, victims, and bully-victims cannot be disregarded, as these three groups differ in the functions of the aggression they use (Camodeca, Goossens, Terwogt, & Schuengel, 2002; Salmivalli & Nieminen, 2002; Unnever, 2005). To get more insight in the differences between bullies, victims, and bully-victims, we recommend the addition of a new subscale to the participant role questionnaire that measures bully-victim behavior (e.g., “Who responds to being bullied by aggressing against the bullies?”).

8.3. Contextual suggestions

There may be contextual variations in the associations of the participant roles with socio-emotional functioning, for example classrooms differ in the degree to which bullies are popular (Dijkstra, Lindenberg, & Veenstra, 2008). A suggestion for further research is to examine how age-related differences in social status profiles of the participant roles depend on classroom characteristics that have been previously related to bullying, such as status hierarchies (Garandeau, Lee, & Salmivalli, 2013), bullying attitudes and norms (Salmivalli & Voeten, 2004; Scholte, Sentse, & Granic, 2010), and prestige norms (Berger & Caravita, 2016). When examining longitudinal trajectories of students' participant role involvement and their related status profiles, it may be especially important to take such classroom characteristics into account. This makes it possible to disentangle longitudinal changes related to changing contextual factors from longitudinal changes due to the development of individual characteristics, such as increases in the motivation to be popular.

A limitation of most studies reviewed in this article is that they did not take the dynamic nature of bullying into account as students were only assigned to one participant role. In real life, students may have more than one role depending on who is involved in the bullying (e.g., a popular or unpopular victim). These variations have been modeled with a social network approach (Huitsing et al., 2014; Huitsing & Veenstra, 2012). Further research could use social network analysis to determine whether students have different roles depending on the status of the victim. For example, it may matter whether a target of bullying is low or high in status. Youth who aggress upon high-status victims show a larger increase in their own status than youth who target low-status victims (Andrews, Hanish, & Santos, 2017). Interestingly, the studies in this review consistently found that victims have low rather than high status. This may be due to the fact that high-status students who are victimized may have a primary role of bully, leading to only low-status students being identified as a victim. One promising way to further capture the complex status dynamics of bullying may be to use dyadic nominations to identify by whom bully-victims are bullied and toward who they direct their own aggression.

Further research also should focus on adolescents' involvement in specific types of bullying. A recent study of adolescents' participant roles in relational and overt aggression episodes indicated that participant role involvement in overt aggression differs substantially from involvement in relational aggression (Casper, Card, Bauman, & Toomey, 2017). For example, reinforcing relational aggression (e.g., laughing when kids are spreading rumors) was only weakly related to reinforcing overt aggression (i.e., laughing when someone is being hit or kicked). Further research should build on this study by examining age differences in the prevalence and status profiles of overt versus relational bullying involvement.

In addition to relational bullying, cyberbullying is an important problem now that many adolescents have mobile phones and easy internet access (Kowalski, Giumetti, Schroeder, & Lattanner, 2014). Numerous studies have examined bystander behavior in cyberbullying, but it is unclear whether the other participant roles also apply to the online context (Allison & Bussey, 2016). Youths who witness cyberbullying often do not intervene (Allison & Bussey, 2016), just as adolescents often do not defend victims of traditional bullying (Pouwels et al., 2016). Research on the participant roles and their associated status goals and profiles may provide a framework to explore why many adolescents do not intervene in cyberbullying.

9. Conclusion

This review showed that the group process of bullying varies between childhood and adolescence and suggests that this may be partly due to the increasing importance of popularity in adolescence. Our review suggests that bullies and their followers are more popular in

adolescence than in childhood, whereas defenders are less popular. Future longitudinal studies across a wide age range are needed to further understand the temporal associations between bullying participant role involvement and peer status across childhood and adolescence. Moreover, in order to bring the participant role field forward, innovative methodological and contextual perspectives should be incorporated in future research.

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References

- Adams, G. R., & Jones, R. M. (1981). Imaginary audience behavior: A validation study. *The Journal of Early Adolescence*, 1, 1–10. <https://doi.org/10.1177/027243168100100102>.
- Allison, K. R., & Bussey, K. (2016). Cyber-bystanding in context: A review of the literature on witnesses' responses to cyberbullying. *Children and Youth Services Review*, 65, 183–194. <https://doi.org/10.1016/j.childyouth.2016.03.026>.
- Andrews, N. C. Z., Hanish, L. D., & Santos, C. E. (2017). Does an aggressor's target choice matter? Assessing change in the social network prestige of aggressive youth. *Aggressive Behavior*, 43, 364–374. <https://doi.org/10.1002/ab.21695>.
- Berger, C., & Caravita, S. C. S. (2016). Why do early adolescents bully? Exploring the influence of prestige norms on social and psychological motives to bully. *Journal of Adolescence*, 46, 45–56. <https://doi.org/10.1016/j.adolescence.2015.10.020>.
- Bukowski, W. M., Sippola, L. K., & Newcomb, A. F. (2000). Variations in patterns of attraction to same- and other-sex peers during early adolescence. *Developmental Psychology*, 36, 147–154. <https://doi.org/10.1037/0012-1649.36.2.147>.
- Camodeca, M., Goossens, F. A., Terwogt, M. M., & Schuengel, C. (2002). Bullying and victimization among school-age children: Stability and links to proactive and reactive aggression. *Social Development*, 11, 332–345. <https://doi.org/10.1111/1467-9507.00203>.
- Caravita, S. C. S., Di Blasio, P., & Salmivalli, C. (2009). Unique and interactive effects of empathy and social status on involvement in bullying. *Social Development*, 18, 140–163. <https://doi.org/10.1111/j.1467-9507.2008.00465.x>.
- Caravita, S. C. S., Gini, G., & Pozzoli, T. (2012). Main and moderated effects of moral cognition and status on bullying and defending. *Aggressive Behavior*, 38, 456–468. <https://doi.org/10.1002/ab.21447>.
- Casper, D. M., Card, N. A., Bauman, S., & Toomey, R. B. (2017). Overt and relational aggression participant role behavior: Measurement and relations with sociometric status and depression. *Journal of Research on Adolescence*, 27, 661–673. <https://doi.org/10.1111/jora.12306>.
- Cillessen, A. H. N., & Mayeux, L. (2004). From censure to reinforcement: Developmental changes in the association between aggression and social status. *Child Development*, 75, 147–163. <https://doi.org/10.2307/3696572>.
- Côté, S. M., Vaillancourt, T., Barker, E. D., Nagin, D., & Tremblay, R. E. (2007). The joint development of physical and indirect aggression: Predictors of continuity and change during childhood. *Development and Psychopathology*, 19, 37–55. <https://doi.org/10.1017/S09545794070070034>.
- de Bruyn, E. H., Cillessen, A. H. N., & Weisfeld, G. E. (2012). Dominance-popularity status, behavior, and the emergence of sexual activity in young adolescents. *Evolutionary Psychology*, 10, 296–319. <https://doi.org/10.1177/147470491201000209>.
- Dijkstra, J. K., Lindenberg, S., & Veenstra, R. (2008). Beyond the class norm: Bullying behavior of popular adolescents and its relation to peer acceptance and rejection. *Journal of Abnormal Child Psychology*, 36, 1289–1299. <https://doi.org/10.1007/s10802-008-9251-7>.
- Duffy, A. L., Penn, S., Nesdale, D., & Zimmer-Gembeck, M. J. (2017). Popularity: Does it magnify associations between popularity prioritization and the bullying and defending behavior of early adolescent boys and girls? *Social Development*, 26, 263–277. <https://doi.org/10.1111/sode.12206>.
- Eagly, A. H., & Wood, W. (1991). Explaining sex differences in social behavior: A meta-analytic perspective. *Personality and Social Psychology Bulletin*, 17, 306–315. <https://doi.org/10.1177/0146167291173011>.
- Ellis, B. J., Volk, A. A., Gonzalez, J.-M., & Embry, D. D. (2016). The meaningful roles intervention: An evolutionary approach to reducing bullying and increasing prosocial behavior. *Journal of Research on Adolescence*, 26, 622–637. <https://doi.org/10.1111/jora.12243>.
- Garandeau, C. F., Lee, I. A., & Salmivalli, C. (2013). Inequality matters: Classroom status hierarchy and adolescents' bullying. *Journal of Youth and Adolescence*, 43, 1123–1133. <https://doi.org/10.1007/s10964-013-0040-4>.
- Garandeau, C. F., Lee, I. A., & Salmivalli, C. (2014). Differential effects of the KiVa anti-bullying program on popular and unpopular bullies. *Journal of Applied Developmental Psychology*, 35, 44–50. <https://doi.org/10.1016/j.appdev.2013.10.004>.
- Goossens, F. A., Olthof, T., & Dekker, P. (2006). New participant role scales: Comparison between various criteria for assigning roles and indications for their validity. *Aggressive Behavior*, 32, 343–357. <https://doi.org/10.1002/ab.20133>.
- Hawley, P. H. (2003). Prosocial and coercive configurations of resource control in early adolescence: A case for the well-adapted machiavellian. *Merrill-Palmer Quarterly*, 49, 279–309. <https://doi.org/10.1353/mpq.2003.0013>.
- Huitsing, G., Snijders, T. A. B., van Duijn, M. A. J., & Veenstra, R. (2014). Victims, bullies, and their defenders: A longitudinal study of the co-evolution of positive and negative networks. *Development and Psychopathology*, 26, 645–659. <https://doi.org/10.1017/S0954579414000297>.
- Huitsing, G., & Veenstra, R. (2012). Bullying in classrooms: Participant roles from a social network perspective. *Aggressive Behavior*, 38, 494–509. <https://doi.org/10.1002/ab.21438>.
- Juvonen, J., & Galván, A. (2008). Peer influence in involuntary social groups: Lessons from research on bullying. In M. J. Prinstein, & K. A. Dodge (Eds.). *Understanding peer influence in children and adolescents* (pp. 225–244). New York: Guilford Press.
- Kärnä, A., Voeten, M., Little, T. D., Alen, E., Poskiparta, E., & Salmivalli, C. (2013). Effectiveness of the KiVa antibullying program: Grades 1–3 and 7–9. *Journal of Educational Psychology*, 105, 535–551. <https://doi.org/10.1037/a0030417>.
- Kowalski, R. M., Giumetti, G. W., Schroeder, A. N., & Lattanner, M. R. (2014). Bullying in the digital age: A critical review and meta-analysis of cyberbullying research among youth. *Psychological Bulletin*, 140, 1073–1127. <https://doi.org/10.1037/a0035618>.
- Lafontana, K. M., & Cillessen, A. H. N. (1998). The nature of children's stereotypes of popularity. *Social Development*, 7, 301–320. <https://doi.org/10.1111/1467-9507.00069>.
- Lafontana, K. M., & Cillessen, A. H. N. (2010). Developmental changes in the priority of perceived status in childhood and adolescence. *Social Development*, 19, 130–147. <https://doi.org/10.1111/j.1467-9507.2008.00522.x>.
- Meter, D. J., & Card, N. A. (2015). Effects of defending: The longitudinal relations among peer-perceived defending of victimized peers, victimization, and liking. *Social Development*, 24, 734–747. <https://doi.org/10.1111/sode.12129>.
- Moffitt, T. E. (1993). Adolescence-limited and life-course-persistent antisocial behavior: A developmental taxonomy. *Psychological Review*, 100, 674–701. <https://doi.org/10.1037/0033-295X.100.4.674>.
- Ojanen, T., & Findley-Van Nostrand, D. (2014). Social goals, aggression, peer preference, and popularity: Longitudinal links during middle school. *Developmental Psychology*, 50, 2134–2143. <https://doi.org/10.1037/a0037137>.
- Olthof, T., Goossens, F. A., Vermande, M. M., van der Meulen, M., & Aleva, E. A. (2011). Bullying as strategic behavior: Relations with desired and acquired dominance in the peer group. *Journal of School Psychology*, 49, 339–359. <https://doi.org/10.1016/j.jsp.2011.03.003>.
- Peets, K., Poyhonen, V., Juvonen, J., & Salmivalli, C. (2015). Classroom norms of bullying alter the degree to which children defend in response to their affective empathy and power. *Developmental Psychology*, 51, 913–920. <https://doi.org/10.1037/a0039287>.
- Pellegrini, A. D., & Long, J. D. (2002). A longitudinal study of bullying, dominance, and victimization during the transition from primary school through secondary school. *British Journal of Developmental Psychology*, 20, 259–280. <https://doi.org/10.1348/026151002166442>.
- Pouwels, J. L., Lansu, T. A. M., & Cillessen, A. H. N. (2016). Participant roles of bullying in adolescence: Status characteristics, social behavior, and assignment criteria. *Aggressive Behavior*, 42, 239–253. <https://doi.org/10.1002/ab.21614>.
- Pouwels, J. L., Salmivalli, C., Saarento, S., van den Berg, Y. H. M., Lansu, T. A. M., & Cillessen, A. H. N. (2018). Predicting adolescents' bullying participation from developmental trajectories of social status and behavior. *Child Development*, 89, 1157–1176. <https://doi.org/10.1111/cdev.12794>.
- Pouwels, J. L., van Noorden, T. H. J., Lansu, T. A. M., & Cillessen, A. H. N. (2018). The participant roles of bullying in different grades: Prevalence and social status profiles. *Social Development*. <https://doi.org/10.1111/sode.12294>.
- Pronk, J., Lee, N. C., Sandhu, D., Kaur, K., Kaur, S., Olthof, T., & Goossens, F. (2017). Associations between Dutch and Indian adolescents' bullying role behavior and peer-group status. *International Journal of Behavioral Development*, 41, 735–742. <https://doi.org/10.1177/0165025416679743>.
- Reijntjes, A., Vermande, M. M., Olthof, T., Goossens, F. A., Aleva, L., & van der Meulen, M. (2016). Defending victimized peers: Opposing the bully, supporting the victim, or both? *Aggressive Behavior*, 42, 585–597. <https://doi.org/10.1002/ab.21653>.
- Reijntjes, A., Vermande, M. M., Olthof, T., Goossens, F. A., Vink, G., Aleva, L., & van der Meulen, M. (2018). Differences between resource control types revisited: A short term longitudinal study. *Social Development*, 27, 187–200. <https://doi.org/10.1111/sode.12257>.
- Salmivalli, C. (2010). Bullying and the peer group: A review. *Aggression and Violent Behavior*, 15, 112–120. <https://doi.org/10.1016/j.avb.2009.08.007>.
- Salmivalli, C., Kärnä, A., & Poskiparta, E. (2011). Counteracting bullying in Finland: The KiVa program and its effects on different forms of being bullied. *International Journal of Behavioral Development*, 35, 405–411. <https://doi.org/10.1177/0165025411407457>.
- Salmivalli, C., Lagerspetz, K., Björkqvist, K., Österman, K., & Kaukiainen, A. (1996). Bullying as a group process: Participant roles and their relations to social status within the group. *Aggressive Behavior*, 22, 1–15. [https://doi.org/10.1002/\(SICI\)1098-2337\(1996\)22:1<1::AID-AB1>3.0.CO;2-T](https://doi.org/10.1002/(SICI)1098-2337(1996)22:1<1::AID-AB1>3.0.CO;2-T).
- Salmivalli, C., Lappalainen, M., & Lagerspetz, K. M. J. (1998). Stability and change of behavior in connection with bullying in schools: A two-year follow-up. *Aggressive Behavior*, 24, 205–218. [https://doi.org/10.1002/\(SICI\)1098-2337\(1998\)24:3<205::AID-AB5>3.0.CO](https://doi.org/10.1002/(SICI)1098-2337(1998)24:3<205::AID-AB5>3.0.CO).
- Salmivalli, C., & Nieminen, E. (2002). Proactive and reactive aggression among school bullies, victims, and bully-victims. *Aggressive Behavior*, 28, 30–44. <https://doi.org/10.1002/ab.90004>.

- Salmivalli, C., & Voeten, M. (2004). Connections between attitudes, group norms, and behaviour in bullying situations. *International Journal of Behavioral Development*, 28, 246–258. <https://doi.org/10.1080/01650250344000488>.
- Scholte, R. H. J., Sentse, M., & Granic, I. (2010). Do actions speak louder than words? Classroom attitudes and behavior in relation to bullying in early adolescence. *Journal of Clinical Child and Adolescent Psychology*, 39, 789–799. <https://doi.org/10.1080/15374416.2010.517161>.
- Sijtsema, J. J., Veenstra, R., Lindenberg, S., & Salmivalli, C. (2009). Empirical test of bullies' status goals: Assessing direct goals, aggression, and prestige. *Aggressive Behavior*, 35, 57–67. <https://doi.org/10.1002/ab.20282>.
- Sullivan, H. S. (1953). *The interpersonal theory of psychiatry*. New York: Norton.
- Thornberg, R. (2015). Distressed bullies, social positioning and odd victims: Young people's explanations of bullying. *Children & Society*, 29, 15–25. <https://doi.org/10.1111/chso.12015>.
- Troop-Gordon, W. (2017). Peer victimization in adolescence: The nature, progression, and consequences of being bullied within a developmental context. *Journal of Adolescence*, 55, 116–128. <https://doi.org/10.1016/j.adolescence.2016.12.012>.
- Underwood, M. K. (2003). *Social aggression among girls*. New York: Guilford.
- Unnever, J. D. (2005). Bullies, aggressive victims, and victims: Are they distinct groups? *Aggressive Behavior*, 31, 153–171. <https://doi.org/10.1002/ab.20083>.
- Vaillancourt, T., Miller, J. L., Fagbemi, J., Côté, S., & Tremblay, R. E. (2007). Trajectories and predictors of indirect aggression: Results from a nationally representative longitudinal study of Canadian children aged 2–10. *Aggressive Behavior*, 33, 314–326. <https://doi.org/10.1002/ab.20202>.
- van der Ploeg, R., Kretschmer, T., Salmivalli, C., & Veenstra, R. (2017). Defending victims: What does it take to intervene in bullying and how is it rewarded by peers? *Journal of School Psychology*, 65, 1–10. <https://doi.org/10.1016/j.jsp.2017.06.002>.
- Yeager, D. S., Fong, C. J., Lee, H. Y., & Espelage, D. L. (2015). Declines in efficacy of anti-bullying programs among older adolescents: Theory and a three-level meta-analysis. *Journal of Applied Developmental Psychology*, 37, 36–51. <https://doi.org/10.1016/j.appdev.2014.11.005>.
- Yun, H., & Graham, S. (2018). Defending victims of bullying in early adolescence: A multilevel analysis. *Journal of Youth and Adolescence*. <https://doi.org/10.1007/s10964-018-0869-7>.