



**TURUN
YLIOPISTO**
UNIVERSITY
OF TURKU

BULLYING CONTEXTUALIZED

How Classroom Contexts Influence
Bullying and Its Consequences

Bin Pan



**TURUN
YLIOPISTO**
UNIVERSITY
OF TURKU

BULLYING CONTEXTUALIZED

How Classroom Contexts Influence
Bullying and Its Consequences

Bin Pan

University of Turku

Faculty of Social Science
Department of Psychology and Speech-language Pathology
Psychology
Doctoral programme on Inequity, Intervention and New Welfare State

Supervised by

Professor Christina Salmivalli
University of Turku,
Turku, Finland

Associate Professor Claire Garandau
University of Turku,
Turku, Finland

Reviewed by

Professor Jaana Juvonen
University of California, Los Angeles,
California, USA

Professor, Simona Carla Silvia Caravita
University of Stavanger,
Stavanger, Norway

Opponent

Professor Jaana Juvonen
University of California, Los Angeles,
California, USA

The originality of this publication has been checked in accordance with the University of Turku quality assurance system using the Turnitin Originality Check service.

ISBN 978-951-29-9108-2 (PRINT)
ISBN 978-951-29-9109-9 (PDF)
ISSN 0082-6987 (Print)
ISSN 2343-3191 (Online)
Painosalama Oy, Turku, Finland 2022

UNIVERSITY OF TURKU

Faculty of Social Sciences

Department of Psychology and Speech-Language Pathology

Psychology

BIN PAN: Bullying Contextualized: How Classroom Contexts Influence

Bullying and Its Consequences

Doctoral Dissertation, 143 pp.

Doctoral Programme on Inequalities, Interventions, and New Welfare State

November 2022

ABSTRACT

Bullying refers to aggressive goal-directed behavior that harms another individual within the context of a power imbalance. Bullying has been viewed as a group process. One of main motivation of bullying is to gain social dominance in the peer group. Moreover, the features of classroom environment could shape the emergence and maintenance of bullying and victimization, as well as their consequences. Using data from 3H project, Study I examined whether classroom status hierarchy moderated the longitudinal association between social dominance goals and bullying behavior. I found children who oriented to social dominance goals are more likely to engage in bullying when power is less equally distributed in the classroom, controlling for gender, grade, classroom size, and classroom gender distribution. With three-year longitudinal design, Study II tested the effects of time-varying and time-invariant components of social dominance goal on bullying and the moderating roles of classroom bystanders' behavior. The results revealed that both persistent and temporary social dominance goals might motivate children to exhibit bullying behavior, but peers' defending behaviors mitigate these associations. Finally, Study III paid attention on how classroom features influence on the consequences of victimization. The finding from Study III provide support for the hypothesis of "healthy context paradox" — peer victimization was more strongly associated with increasing depressive symptoms in classrooms with lower classroom-level victimization. Moreover, two mechanisms of this phenomenon were identified. First, low classroom-level victimization reduced victimized children's received friendship nominations from peers, thereby leading to increases in depressive affect. Second, low classroom-level victimization affected victimized children's depressive symptoms through damage to their social self-concept. Taken together, these findings provide evidence regarding the group nature of bullying and highlight contextual factors which contribute to bullying dynamics.

KEYWORDS: Bullying, Victimization, Classroom contexts, Group process

Table of Contents

Table of Contents	4
Acknowledgements	7
List of Original Publications	9
1 Introduction	10
1.1 Theoretical Background	11
1.2 Classroom Contexts and Social Dominance Goals-Bullying Association.....	13
1.2.1 Social Dominance Goals and Bullying.....	13
1.2.2 The Role of Classroom Status Hierarchy.....	14
1.2.3 The Role of Bystander Behavior.....	15
1.3 Classroom-level Victimization and Victimization-Depressive Symptoms Association.....	16
1.3.1 The Healthy Context Paradox	16
1.3.2 The Healthy Context Paradox Explained by Interpersonal Mechanisms	18
1.3.3 The Healthy Context Paradox Explained by Cognitive Mechanisms	18
1.4 Cultural Consideration.....	19
1.5 Developmental Consideration	20
2 Aims of the thesis	22
3 Method	23
3.1 A Look at Classrooms and Schools in China.....	23
3.2 Participants and Procedure	23
3.2.1 The 3H Project sample.....	24
3.2.2 The LSCCA sample	25
3.3 Measures	26
3.4 Statistical Analyses	30
4 Overview of the Studies	33
5 Discussion	36
5.1 The group nature of bullying.....	36
5.2 Cultural implications	38
5.3 Strengths and Limitations.....	39

5.4	Practical implications	40
5.5	Future Research	41
5.5.1	Potential Mechanisms of Social Dominance Goals- Bullying Association	41
5.5.2	Other Mechanisms and Outcomes of Healthy Context Paradox.....	42
5.5.3	Multiple Indicators of Classroom Contexts.....	43
List of References.....		44
Original Publications.....		53

Tables

Table 1. Summary of Study Variables27

Acknowledgements

Pursuing a PhD is like an adventure. I came to an unfamiliar country and explored a new grounds. However, I never walked alone during the long journey. Now, I stand at the terminus and look back. I would like to acknowledge the people who provide guidance and support on the way.

I want to express my sincere gratitude to my supervisor Christina Salmivalli. I am so lucky that Christina invited me to join her group in Turku four years ago. Everything happened so fast that I still feel it as a dream. Your brilliant ideas, excellent guidance, and kindly encouragement made my PhD career easier and happier. From you, I learnt how to be a good researcher. I am also grateful to second supervisor Claire Garandau for your inspiration and encouragement, as well as a lot of feedbacks and comments on my work. I truly thank you for working with me.

I would like to express special thanks to my Chinese supervisor Prof. Wenxin Zhang in Shandong Normal University who have supported and inspired me since I entered your lab eight years ago. You have given me opportunities and work on several fascinating tasks. These have included working as a trainer and a data manager of 3H program. I truly appreciate all the experiences.

I am deeply honored that Jaana Juvonen accepted to serve as my opponent. I am thankful to Prof. Jaana Juvonen and Prof. Simona Carla Silvia Caravita for reviewing my work and their helpful comments. It is really fortune that that such experts devoted their time to evaluating and commenting on my work.

I would like to thank all of the coauthors: Sarah Malamut, Tengfei Li, Liang Zhang, and Linqin Ji. Your valuable comments, feedbacks and editing make my manuscripts eventually come to publications. I appreciate my colleagues in Shandong Normal University who put effort in the data collection and all children who participated in study.

I feel delighted to work at the INVEST flagship center. Here I have perfect working environment and nice colleagues. Thank you Waseem Haider for your accompany and driving me everywhere. Peer support from Psychology group always make me feel home. For this reason, I would like to also thank Dagmar Strohmeier, Daniela Chávez, Tiina Turunen, Jessica Trach, Marie-Pier Larose, Zixuan Wang,

Sanna Herkama, Lydia Laninga-Wijnen, Juuso Repo, Oskari Lahtinen, Eerika Johander, Essi-Lotta Tenhunen, Inari Harjuniemi.

I acknowledge Doctoral Programme in Inequalities, Interventions and New Welfare State and Outstanding Students Study Abroad Funding Project of Shandong Normal University, for their financial assistance.

Finally, I would like to thank my parents and lovely girlfriend for your tremendous understanding and encouragement in the past years.

List of Original Publications

This dissertation is based on the following original publications, which are referred to in the text by their Roman numerals:

- I Pan, B., Zhang, L., Ji, L., Garandau, C. F., Salmivalli, C., & Zhang, W. (2020). Classroom status hierarchy moderates the association between social dominance goals and bullying behavior in middle childhood and early adolescence. *Journal of Youth and Adolescence*. 49(11), 2285-2297. <https://doi.org/10.1007/s10964-020-01285-z>
- II Pan, B., Garandau, C. F., Li, T., Ji, L., Salmivalli, C., & Zhang, W. (2022). The Dynamic Associations between Social Dominance Goals and Bullying from Middle to Late Childhood: The Moderating Role of Classroom Bystander behaviors. *Journal of Educational Psychology*. In Press. doi: 10.1037/edu0000776
- III Pan, B., Li, T., Ji, L., Malamut, S., Zhang, W., & Salmivalli, C. (2021). Why Does Classroom-level Victimization Moderate the Association between Victimization and depressive symptoms? The “Healthy Context Paradox” and Two Explanations. *Child Development*. 92(5), 1836-1854. <https://doi.org/10.1111/cdev.13624>

The original publications have been reproduced with the permission of the copyright holders.

1 Introduction

Bullying has been conceptualized as “aggressive goal-directed behavior that harms another individual within the context of a power imbalance” (Volk et al., 2014, p. 327). Approximately one third of school-aged children across the world are repeatedly bullied by their class- or schoolmates (UNESCO, 2019). The literature in the area of bullying have rapidly increased in last decade (Pouwels et al., 2018; Rambaran et al., 2020; Salmivalli et al., 2021). Among the literature, bullying has been increasingly viewed as goal-directed behavior driven by the desire to gain social dominance goals (Volk et al., 2022) and affected by peer dynamics in the classrooms or schools (Salmivalli, 2010; Salmivalli et al., 2021). Moreover, meta-analyses showed that anti-bullying programs have successfully reduced the prevalence of bullying and victimization (Gaffney et al., 2019). However, there is still much room for improvement. Specifically, after intervention, there are still some challenging bullies who are not easy to be tackled, partly because the motivation for bullying others cannot be fully addressed by anti-bullying interventions (Garandeau et al., 2014a). Also, those who remain or become victimized increased in maladjustment in classrooms where an anti-bullying program was successfully implemented (Garandeau et al., 2018; Huitsing et al., 2019). Since changing the motivation of bullies and reducing the maladjustment of victims is not easy (Fite et al., 2019; Yeager et al., 2015), it is essential to know whether situational and contextual factors could moderate these associations, that is to identify contexts in which the desire for dominance does not lead to bullying behaviour, as well as whether classroom contexts can affect the harmful effects of bullying and through which mechanism? This thesis focused on (1) whether classroom contexts (i.e., classroom status hierarchy and bystander behaviors) moderate the association between social dominance goals and bullying; and (2) why classroom-level victimization moderates the victimization-depression association.

Study I tests whether classroom social status hierarchy moderates the association between social dominance goals and bullying behaviour. I hypothesize that classroom status hierarchy strengthens the positive association between social dominance goals and bullying. That is, children striving for social dominance are more likely to engage in bullying in more hierarchical classrooms. Study II tests

whether the classroom prevalence of two types of bystander behavior moderates the dynamic association between social dominance goals and bullying behaviour. I anticipate that both time-varying and time-invariant components of social dominance goals are positively associated with bullying. Moreover, the positive association between social dominance goals and bullying is expected to be stronger in classrooms with higher levels of reinforcing behavior and weaker in classrooms with higher levels of defending behaviour. Study III tests whether classroom-level victimization moderates the association between peer victimization and depressive symptoms, and examines why. First, it is expected that the positive association between victimization and depressive symptoms will be stronger in classrooms with lower levels of victimization. Second, regarding the factors that might explain this effect, there are two hypotheses: a) victims have fewer mutual friends in classrooms with lower mean levels of victimization and lack of friends in turn is associated with higher depressive symptoms; b) victims have a more negative social self-concept in classrooms with lower mean levels of victimization, which leads to increases in depressive symptoms.

1.1 Theoretical Background

According to ecological system theory, human development is depended on multiple interrelated systems, including micro-, meso-, exo-, macro-, and chronosystems (Bronfenbrenner & Ceci, 1994). Classroom is an important developmental context in the microsystem (Pianta et al., 1995). During schoolyears, children acquire knowledge, interact with peers, and develop socioemotional competencies in the classroom (Roubinov et al., 2020).

The growing interest in the influence of classroom contexts in the field of bullying origins from the idea that bullying is group process (Salmivalli, 1996, 2010). The motivation of bullies is assumed to lie in gaining status, power, and dominance in the peer group (Volk et al., 2012). Such motivation not only concerns bullies themselves, but also relates to other members of the peer group (Salmivalli, & Peets, 2008). To demonstrate social dominance, bullies might pick on the most vulnerable peers who cannot defend themselves (Veenstra et al., 2007) in contexts where bystanders are present (Salmivalli et al., 2011). From bullies' perspective, school premises might be an ideal place to exhibit bullying behavior. They know which class- or schoolmates can be easily dominated, and their bullying behavior can be always witnessed by their peers at school (Fekkes et al., 2005). However, the prevalence of bullying and victimization varies across classrooms (Salmivalli, 2010). For example, in a large, Finnish sample including 378 classrooms, the characteristics of classrooms explained 10% of variance in bullying behavior and 13% of variance

in victimization (Kärnä et al., 2011). Thus, it is worth investigating which classroom contextual factors might facilitate or inhibit bullying perpetration and victimization.

The indicators of classroom characteristics consist of two categories, namely characteristics of (1) demography and structure and (2) peer interactions (Saarento et al., 2015). The demographic and structural characteristics of classroom include classroom size, classroom gender distribution, classroom proportion of immigrants and so forth. There is evidence, for instance, that bullying is more prevalent in classrooms with fewer students (e.g., Garandeau et al. 2014b, 2019) and a higher proportion of boys (Saarento et al., 2015). Characteristics of classroom-level peer interaction depicts how classmates interact with each other. For example, class norms, which are both precursors and consequences of classroom-level peer interaction, can refer to how most classmates behave (i.e., descriptive norms), which behaviors are approved by classmates (i.e., injunctive norms), or how the popular classmates behave (Cialdini et al., 2006; Dijkstra et al., 2008). Dijkstra et al. (2008) found that children were more likely to accept bullying behavior in classrooms where bullying was common in the whole classroom and where the association between perceived popularity and bullying was positive.

In this thesis, I aimed to clarify how classroom contexts influence the bullying behavior of social dominance-aspiring children, as well as depressive symptoms of victimized children. I particularly focused on three indicators of classroom contexts: classroom status hierarchy, classroom bystander behaviors, and classroom-level victimization.

Classroom contexts might affect the behavioral decision of children who long for social dominance. Goal-framing theory posits that goals and goal-relevant behaviors can be activated and aroused to a greater or a lesser extent by different social contexts (Lindenberg, 2013). Once a certain goal is activated, individuals become more selective in their search of situational cues regarding the opportunities to achieve that goal (Veenstra et al., 2007). The opportunities that are beneficial to goal pursuit might drive individuals to engage in goal-concordant behavior; whereas situations where goals are thwarted might prevent one's engagement in such behavior (Veenstra et al., 2007). Children who aim primarily for social dominance tend to evaluate the context in which they find themselves and determine whether they could gain social dominance through bullying (Veenstra et al., 2007). If dominance-oriented children see that bullying is highly rewarded and incurs minimal costs in a particular social context, they should be more inclined to bully others in that context (Veenstra et al., 2007). Therefore, classroom contextual factors might have an impact on the extent to which social dominance goals relate to bullying behavior.

Moreover, the likelihood of victimization leading to maladjustment might also vary across classroom contexts (Swearer & Espelage, 2004). As illuminated in the

recent literature, the healthy context paradox indicates that the adjustment of victimized youth is poorer in classrooms with low average levels of victimization (Garandeau & Salmivalli, 2019). There are two mechanisms explaining the phenomenon. On the one hand, the classroom contexts can influence how classmates treat victims. Victimized children are often rejected by their peers and hardly to make friends in the classroom with low levels of victimization (Sentse et al., 2007). Such adverse interpersonal risks might put children at risks for maladjustments (van Lier & Koot, 2010). On the other hand, classroom contexts can affect how victimized children view bullying incidents and themselves. When children are victimized in supportive classroom environment, they may be more likely to blame themselves and make negative self-evaluations (Schacter & Juvonen, 2015), but rather attribute the victimization to external causes. The internal attributions might lead to more emotional problems (Schacter & Juvonen, 2015).

1.2 Classroom Contexts and Social Dominance Goals-Bullying Association

1.2.1 Social Dominance Goals and Bullying

Social dominance goals are defined as a desire for power over peers (Jarvinen & Nicholls, 1996; Kiefer & Ryan, 2008). From an evolutionary perspective, bullying can be considered as an effective strategy to achieve and consolidate a position of dominance in the peer group (Hawley, 1999; Volk et al., 2012). Through their behavior, bullies can intimidate their peers and make others obey their will (Volk et al., 2012), which further serves to maintain their dominant positions (Pellegrini & Long 2002). A three-year longitudinal study found persistent bullying behaviors to be rewarded with high social dominance between 4th and 6th grade (from age 10 to 12; Reijntjes et al., 2013). Furthermore, those who bully others tend to be perceived as popular both in middle childhood (Caravita & Cillessen, 2012; Olthof et al., 2011) and early adolescence (Caravita & Cillessen, 2012; de Bruyn & Cillessen, 2010). As perceived popularity is associated with social impact and having a reputation of not being easy to push around (Parkhurst & Hopmeyer, 1998), it can be considered as a proxy for social dominance. Taken together, these findings suggest that bullying allows children to achieve social dominance in the classroom.

Previous studies have revealed that children striving for social dominance are more likely to engage in bullying. For instance, cross-sectional studies have shown that the pursuit of agentic goals was positively related to bullying in middle childhood and in early adolescence (Sijtsema et al., 2009), especially for children perceived as popular by their classmates (Caravita & Cillessen, 2012). Bullies were

also found to have a stronger desire to obtain power, dominance, and prestige than their peers in early adolescence (Olthof et al., 2011).

1.2.2 The Role of Classroom Status Hierarchy

Social status hierarchy is a pervasive and fundamental feature of social organization in human groups (Halevy et al., 2011). In classroom settings, status hierarchy has been generally operationalized as the standard deviation in perceived popularity among the students in a classroom (Garandau et al., 2011; Zwaan et al., 2013). As perceived popularity reflects power, dominance, and visibility among peers (Cillessen & Marks 2011), classroom status hierarchy represents the distribution of power and dominance in the classroom. In classrooms with high levels of status hierarchy, only few students are perceived as “popular” and hold the power in the classroom, while in low-hierarchy classrooms, children’s social status is relatively egalitarian. A longitudinal study found that a high level of status hierarchy predicted increases in bullying behavior six months later in a sample of 11,296 adolescents from 583 classes in Finland (Garandau et al., 2014b).

Highly hierarchical contexts may encourage children who strive for social dominance to engage in bullying, because such contexts might make it more likely that bullying behaviors are rewarded with social benefits in the form of high popularity. Consistent with this proposition, several cross-sectional studies have found that in middle childhood the association between aggression and popularity was stronger in hierarchical classrooms where a small number of students played a prominent role in interpersonal connections (Ahn et al., 2010), and where the levels of perceived popularity varied considerably across students (Garandau et al., 2011, but see Zwaan et al., 2013). Similarly, a recent longitudinal study revealed that higher levels of classroom status hierarchy led to higher aggression–popularity norms in the classroom (i.e., stronger positive within-classroom association between bullying and popularity) during adolescence (Laniga-Wijnen et al., 2019). Furthermore, dominance positions are scarce and therefore more valuable in highly hierarchical classrooms (Garandau et al., 2014b). The popular children in such classrooms possess more power and visibility than in the classrooms where social status is more equally distributed. The salient reputational rewards attached to bullying in such social environments should increase the accessibility of dominance goals, thereby facilitating and reinforcing the bullying behavior of children who desire dominance (Custers & Aarts, 2010).

In addition to bringing social benefits to bullying children, hierarchical classrooms might also reduce the costs of bullying. Costs, such as physical harm and loss of social approval, might normally inhibit the motivation to bully others (Veenstra et al. 2007). However, victimized children are more likely to be unpopular

and rejected in highly hierarchical classrooms (Ahn et al. 2010). Due to their low status, victims are less likely to resist or receive protection from other peers when being bullied (Huising et al. 2014). Therefore, children who endorse social dominance goals may pick on these easy targets to gain dominance at a low cost (Sijtsema et al. 2009).

Taken together, these findings suggest that classroom status hierarchy may relate to higher benefits and lower costs for bullying behaviors. In classrooms of higher status hierarchy, dominance-hungry children may be more motivated to engage in bullying behavior due to the clear social rewards of bullying and the victims' higher vulnerability. However, to date, no study has investigated the role of classroom status hierarchy in the association between social dominance goals and bullying. Therefore, in the present thesis I tested whether classroom hierarchy has a moderating effect on social dominance goals–bullying association.

1.2.3 The Role of Bystander Behavior

One key contextual factor related to bullying is the prevalence of specific bystander behaviors in the classroom (Salmivalli et al., 2011). An observational study found that peers were involved as bystanders in 85% of bullying episodes (Craig & Pepler, 1998). The participant role approach (Salmivalli et al., 1996) distinguished four types of bystanders in bullying situations: assistants who join the ringleader bullies and help them attack the victims; reinforcers who encourage bullies by laughing, cheering, or other social rewards; outsiders who stay away or do not take sides with anyone; and defenders who stand up for victims, comforting and supporting them, and trying to stop the bullying.

In this thesis, I focus on two clearly different types of bystanders' behavior, reinforcing the bully and defending the victim. Among children and adolescents, 5.4% to 19.5% acted as reinforcers, while 3.1% to 35.4% were defenders (Chen et al., 2020; Pouwels et al., 2016; Salmivalli et al., 1996). Reinforcing the bullies and defending the victims could contribute to the prevalence of bullying. For example, higher levels of reinforcing and lower levels of defending in classrooms were found to be associated with more bullying behavior (Salmivalli et al., 2011; Thornberg & Wänström, 2018). Similarly, using a longitudinal design, Nocentini et al. (2013) found that higher classroom-level pro-bullying behaviors were associated with higher initial levels of bullying, whereas anti-bullying behaviors led to decreased bullying over time. Moreover, bystander behaviors also play an important role in anti-bullying interventions. Guided by the participant role approach, the Finnish anti-bullying program KiVa was shown to be effective in reducing bullying behavior and victimization among children and early adolescents (Kärnä et al., 2011). One of the

mechanisms through which the KiVa program reduced rates of self-reported bullying was by successfully encouraging bystanders to defend victims (Saarento et al., 2015).

Moreover, reinforcing the bully and defending the victim are expected to moderate the association between social dominance goals and bullying, as these behaviors could determine whether bullying in the classroom is advantageous or costly for the perpetrator. First, reinforcers of bullies might encourage children who strive for social dominance to bully others by providing social benefits (Craig & Pepler, 1998; Salmivalli et al., 1996; Salmivalli et al., 2011). The positive verbal or nonverbal feedback (e.g., smiling and laughing) of reinforcers can make the bullies feel powerful, strong, and dominant during bullying incidents, and bullies might further learn that bullying brings social rewards. Moreover, when bullying appears to be approved by others and no one stands up for victims, the victimized children and even some outsiders might be more afraid and more easily dominated by the perpetrator(s) (Salmivalli & Voeten, 2004; Lodge & Fryenberg, 2005). Therefore, in classrooms with a high proportion of reinforcers, the dominance-seeking children may be more likely to abuse their power by bullying their peers.

On the other hand, defenders take sides with the victims and challenge the power of bullies, which could enhance the costs of bullying (Salmivalli et al., 2011; Yun, 2020). Children defend their victimized peers by offering comfort, reporting to authority, or confronting the bullies directly (Lambe & Craig, 2021). When bullying incidents are reported to teachers, the bullies might be sanctioned (Rigby & Barnes, 2002). Furthermore, when some bystanders confront bullies directly, the bullies are more likely to get hurt and less likely to achieve their dominance position (Yun, 2020). Even comforting and supporting victims privately could empower victims to resist bullies (Sainio et al., 2011). These potential costs of bullying, such as teachers' sanctions and loss of social approval, might prevent the dominance-oriented children from engaging in bullying behavior in classrooms where defending behavior is more prevalent (Veenstra et al., 2007). Despite the importance of bystanders' behaviors for bullying behavior, to date, no study has considered the role of classroom bystanders' behavior in moderating the social dominance goals-bullying association.

1.3 Classroom-level Victimization and Victimization-Depressive Symptoms Association

1.3.1 The Healthy Context Paradox

Due to numerous negative effects of peer victimization (Perren et al., 2013; Rudolph et al., 2011), a low overall level of victimization in classrooms and schools is undoubtedly a positive thing, and is an outcome pursued by prevention programs.

When the average level of victimization in a context declines, positive effects are found not only among those who escape victimization, but also among their schoolmates (Williford et al., 2012). For instance, children exhibit fewer social anxiety and depressive symptoms in classrooms with low levels of victimization (Bellmore et al., 2004; Huitsing et al., 2012). However, accumulating evidence suggests that a seemingly paradoxical phenomenon is occurring; the few individuals who remain or become victimized in such “healthy” contexts are especially maladjusted, more so than those who are victimized in contexts where others around them share their plight (e.g., Bellmore et al., 2004; Garandeau et al., 2018; Gini et al., 2020; Huitsing et al., 2019).

The first studies drawing attention to this issue were conducted in the early 2000s by Juvonen and colleagues. They found that the association between peer victimization and emotional distress was stronger in classrooms with lower levels of social disorder, operationalized as classroom levels of victimization and aggression (Bellmore et al., 2004). Using a daily report methodology, Nishina and Juvonen (2005) found that witnessing others being victimized mitigated the effects of one’s own victimization experience on humiliation and anger. Consistent with these findings, Huitsing et al. (2012) found that the association between peer victimization and maladjustment was stronger in classrooms where the average level of victimization was low, and where bullying was targeted at a few students rather than the majority of students. Moreover, recent cross-sectional studies found that victimization was associated with more somatic complaints (Gini et al., 2020) and depressive symptoms (Yun & Juvonen, 2020) in classrooms with low victimization. Similarly, recent longitudinal studies reported that youth who remained victimized were more depressed in classrooms where the proportion of victims had decreased over time (Garandeau et al., 2018) and where an anti-bullying program was successfully implemented (Huitsing et al., 2019).

Taken together, prior studies indicate that victimized children are more likely to exhibit depressive symptoms in classrooms with low levels of victimization than in classrooms with high levels of victimization. In low-victimization contexts, victimized children may be less desirable as friends, and/or may be more likely to have negative perceptions of themselves (Garandeau & Salmivalli, 2019). However, these potential mechanisms have not been directly tested yet. Understanding the mechanisms underlying the healthy context paradox is crucial to develop specific intervention strategies targeted at chronic victims while implementing whole-school anti-bullying policies or programs.

1.3.2 The Healthy Context Paradox Explained by Interpersonal Mechanisms

One reason why a “healthy” classroom environment exacerbates victimized students’ depressive symptoms might be that such a context undermines their interpersonal relationships, particularly friendships (Garandean et al., 2018). The person-group dissimilarity model postulates that group members’ attitudes towards others depends on what is normative in the group (Wright et al., 1986). Accordingly, victims are often viewed as “social misfits” in classrooms with low levels of victimization, and thus are more likely to be rejected by the peer group (Sentse et al., 2007). Given the marginalized status of victimized children, non-victimized peers may avoid forming friendships with them (Pedersen et al., 2007). Therefore, they tend to affiliate with other victimized youth, partly because they have no other choice (i.e., default selection, Sentse et al., 2013; Sijtsema et al., 2013). It may be even more difficult for victimized children to befriend other children in classrooms with low victimization, as there are few (or no) peers sharing their plight.

There is mounting evidence that having friends reduces the likelihood of being depressed, while a lack of friendships makes it more likely (Boivin et al., 1995; Pedersen et al., 2007). For example, Pedersen and colleagues (2007) found that friendlessness at age 10-11 predicted depressive symptoms at age 12-13. Friendships are especially important for children who face peer victimization, as friends can prevent them from developing depressive symptoms in two ways. First, when victimization takes place, friends can stand up for them, stopping or preventing victimization (Hodges et al., 1999; Sainio et al., 2011). Second, after victimization incidents, friends might provide comfort and emotional support and promote effective problem solving (Schmidt & Bagwell, 2007).

1.3.3 The Healthy Context Paradox Explained by Cognitive Mechanisms

Another explanation for victimized children being more maladjusted in “healthy” contexts is based on social comparison theory (Gibbons, 1986; Wills, 1981). The theory posits that individuals have a tendency to evaluate themselves by comparing their experiences to those of others. When children are victimized in classrooms with many victims, they are able to make adaptive comparisons, i.e., compare themselves with peers in a similar position, which might help them restore self-esteem (Brendgen et al., 2013; Huitsing et al., 2019; Wills, 1981). In contrast, if similarly victimized peers are rare in the victims’ environment, victims might make more negative self-evaluations because they are more likely to engage in maladaptive upward comparisons with non-victimized peers (Brendgen et al., 2013; Gibbons, 1986; Huitsing et al., 2019). In line with social comparison theory, studies found that

victimized children were more likely to blame themselves (Schacter & Juvonen, 2015) and have a negative global self-esteem (e.g., Huitsing et al., 2012) in contexts where victimization was less common. However, few studies have paid attention to whether the classroom social context influenced domain-specific self-perceptions, such as social self-concept, among victimized children.

During middle childhood, children develop a global self-perception by integrating multiple domain-specific self-perceptions; however, children's perception on their selves cannot be adequately understood without taking the domain-specific facets of self-concept in consideration (Harter, 2006). Social self-concept is one of the domain-specific facets of self-evaluation, reflecting children's perception of their competence to function in the social domain (Harter, 1985). Unlike other domains, such as academic or athletic competence, which are likely to be based on more objective criteria (e.g., grades, measurable results), children's self-evaluations in the social domain are strongly determined by their interactions with peers (Ladd & Troop-Gordon, 2003). Therefore, children's self-concept in the social domain may be more sensitive to changes in their victimization experience and classroom contexts than their self-concept in other domains, as well as their general self-concept. A recent study found that daily verbal victimization was negatively associated with fifth-graders' perceived social self-concept in classrooms with low, but not in those with high levels of aggression (Morrow et al, 2018).

Moreover, social self-concept may mediate the association between peer victimization and depressive symptoms. According to the competency-based model, stressful life events, such as peer victimization, may cause negative self-evaluations regarding competence, which in turn predispose children to feel depressed (Jacobs, Reinecke, Gollan, & Kane, 2008). Supporting this pathway, Ladd and Troop-Gordon (2003) found that chronic peer victimization was indirectly associated with internalizing problems through poor social self-concept. A subsequent study with the same sample found that peer victimization was associated with declines in social self-concept, thereby leading to the development of internalizing problems (Troop-Gordon & Ladd, 2005). These findings suggest that victims in classrooms with low victimization might form a maladaptive social self-concept, which might in turn lead to more depressive symptoms.

1.4 Cultural Consideration

Chinese culture is characterized by vertical-collectivism with an emphasis on both interdependence and hierarchy among peers (Schwartz et al., 2010; Triandis, 1995). On the one hand, due to the significance of interdependence, Chinese children may be more concerned with establishing harmonious peer relationships than acquiring social dominance in the classroom (Wright et al., 2014). Moreover, bullying

behavior is highly discouraged in Chinese culture, because it may threaten group cohesion (Chen et al., 2019). Accordingly, bullies are more likely to be unpopular and rejected by peers (Ji et al., 2016). On the other hand, reflecting the vertical feature in collectivism, each group member has a clear position in the social hierarchy and is often willing to sacrifice their own interests for the collective well-being (Chen et al., 2020; Schwartz et al., 2010). Therefore, victimizing low-status students could be recognized as a legitimate means to maintain social order and reinforce one's role in the group (Schwartz et al. 2010), especially in classrooms with a clear hierarchy. Therefore, the Chinese cultural context provides an ideal setting for testing the function of classroom status hierarchy.

To date, most studies regarding the “healthy context paradox” have been conducted with Western samples (for an exception, see Yun & Juvonen, 2020). Therefore, there is insufficient knowledge about whether these effects can be generalized to non-Western cultures. Unlike Western cultures, Chinese culture is rooted in Confucianism and collectivism, emphasizing the maintenance of harmony in interpersonal relationships, compliance with authority, and conformity to group norms (Chen et al., 2019). This suggests that the classroom environment should be relevant for the victims' adjustment also (and perhaps especially) in this cultural context. First, given the importance of interpersonal harmony, consensual group norms are more likely to emerge in collective cultural contexts. If someone violates these norms, they may be exposed to sanctions by classmates, thereby leading to “whole-class aggression and shunning of a victim” (Smith & Robinson, 2019). Therefore, the few victimized students might be rejected by most classmates, which may reduce their desirability as a friend. Furthermore, due to the emphasis on interdependence, Chinese children are more prone to evaluate themselves with reference to others (Wang, 2004). For this reason, an absence of similarly victimized peers might be harmful to children's self-perceptions and emotional adjustment. Thus, the healthy context paradox and relevant explanations may be also evidenced in the Chinese culture.

1.5 Developmental Consideration

In this thesis, I examined whether classroom environment could affect bullying and its consequences in a sample of children from middle to late childhood (from grade 3 to grade 6 in primary school, Study I, Study II, and Study III), as well as children in early adolescence (grade 7 in junior secondary school, Study I). This is a particularly relevant developmental stage to test the functions of classroom contexts. As children become more susceptible to peer evaluations and peer influence from middle to late childhood (Sumter et al., 2009), peer interactions in the classroom

(e.g., classroom status hierarchy, classroom bystanders' behavior and classroom-level victimization) might have a strong impact on their behaviors and experiences.

Moreover, due to the changes of gonadal hormone levels (i.e., testosterone) and increased excitability of limbic circuits (Crone & Dahl, 2012; Meisel et al., 2021), social dominance goals become more salient from middle childhood to adolescence (Dawes & Xie, 2017; LaFontana & Cillessen, 2010). Accordingly, individuals at this age are more likely to engage in high-intensity behavior which can demonstrate social dominance, such as bullying (Juvonen & Graham, 2014). The development of social cognition allows them to analyze their situation and make proper behavioral choices to achieve their goals (Garandeau & Cillessen, 2006). Furthermore, bullying is increasingly reinforced by social rewards in peer interactions from middle childhood to early adolescence (Caravita & Cillessen, 2012; Cillessen & Mayeux, 2004; Garandeau et al., 2011). Therefore, it is reasonable to expect that children who strive more for social dominance might be more likely to bully others in early adolescence than in middle childhood.

Finally, peer victimization becomes more distressing from middle to late childhood (Sullivan et al., 2006). Children who are exposed to victimization in middle childhood might exhibit increasing depressive symptoms from middle childhood to adolescence (Rudolph et al., 2011; Schwartz et al., 2015). Friendships and social self-perceptions are particularly relevant mechanisms in this period. Friendships characterized by intimacy, self-disclosure, and emotional support emerge by this period, and play an important role in future development and well-being (Poulin & Chan, 2010). Self-perceptions, particularly in the social domain, become more malleable and more dependent on social comparison and peer experiences and relationships around this age (Harter, 2006).

2 Aims of the thesis

The main aim of this thesis was to examine how classroom contexts moderate the association between social dominance goals and bullying, as well as the consequences of victimization.

The specific questions addressed in the thesis were as follows:

1. Does classroom status hierarchy moderate the longitudinal associations between social dominance goals and bullying?
2. Do classroom bystander behaviours moderate the time-varying and time-invariant associations between social dominance goals and bullying?
3. Does classroom-level victimization moderate the longitudinal association between peer victimization and depressive symptoms and through which mechanism?

3 Method

3.1 A Look at Classrooms and Schools in China

The three empirical studies in this thesis are conducted in the context of classrooms and schools in China. The data is from children in elementary and lower secondary school from Shandong Province, China. Compulsory education in China includes for six years of elementary school and three years junior secondary school. Children enter elementary school at the age of six or seven, and enter junior secondary school at the age of twelve. After junior secondary school, children will take senior high school entrance examination which distinguish junior graduates. On average, elementary school students spend about seven to eight hours at school while a secondary school student spends about nine to ten hours at school. The academic year is divided into two terms: February to mid-July (six weeks of summer holiday) and September to mid/late-January (four weeks of winter holiday).

During period of compulsory education, classroom composition is highly stable during elementary and lower secondary school. Each classroom is assigned a homeroom teacher. The homeroom teacher is responsible for the teaching one subject (usually Chinese, Math, or English). The homeroom teacher also contributes to classroom management, extra curricula activities and communication with parents. The homeroom teachers formally appoint specific children to leadership positions to participant in classroom management (Schwartz et al. 2010). The classroom size ranges from 30 to 50 students in elementary school, and ranges from 40 to 60 students in junior secondary school.

3.2 Participants and Procedure

The empirical studies presented in this thesis used data from research program, the 3H Project (Study I and II) and Longitudinal Study of Chinese Children and Adolescents (LSCCA, Study III).

3.2.1 The 3H Project sample

The 3H Anti-bullying Program were funded by Key Projects of Philosophy and Social Sciences Research of Ministry of Education of China. This program contained both basic and intervention studies. The basic studies were a longitudinal study (2018–2021) aimed to investigate the predictors and consequences of bullying, and the intervention studies aimed to develop and evaluate the antibullying program.

The Study I utilized data from first two waves of the basic study of 3H Program. At Wave 1, participants were 1603 children from in grade 3 ($n = 558$, 46.2% girls, $M_{\text{age}} = 9.33$ years, $SD = 0.44$), grade 4 ($n = 491$, 45.0% girls, $M_{\text{age}} = 10.31$ years, $SD = 0.38$) and grade 7 ($n = 554$, 49.3% girls, $M_{\text{age}} = 13.2$ years, $SD = 0.46$), recruited from 41 classrooms (including seventeen grade 3 classrooms, fifteen grade 4 classrooms and sixteen grade 7 classrooms) in 1 elementary school, 1 secondary school and 3 combined schools (comprising both elementary and secondary school grades) in Jinan and Tai'an, P. R. China. Nearly all the participants were Han Chinese ethnicity (the vast majority ethnic group in China, at 92% of total population) and native Mandarin speakers (the majority language in China, at 70% of total population). In the original sample, 89.9% of mothers and 91.3% of fathers had an educational attainment of senior high school degree or higher. In China, students take almost all their lessons with same classmates during an academic year, in both elementary and secondary schools. The schedule of courses and other activities is typically identical for all students in the same class. At the second wave, a total of 125 children (7.8%) dropped out because of hectic schedules and transferring to a new school.

The Study II focus on the elementary school cohort. Participants were 1174 children in grade 3 ($n = 615$, 46.5% girls, $M_{\text{age}} = 9.289$ years, $SD = 0.400$), and grade 4 ($n = 559$, 44.9% girls, $M_{\text{age}} = 10.310$ years, $SD = 0.397$), recruited from 29 classrooms (including 15 third-grade classrooms and 14 fourth-grade classrooms) in four elementary schools in Jinan and Tai'an, P. R. China. Of a total of 1174 students, 90.6% ($n = 1064$) participated in 2018, 91.1% ($n = 1069$) participated in 2019, and 88.1% ($n = 1034$) participated in 2020. In this sample, 89.9% of mothers and 91.3% of fathers had an educational attainment of senior high school degree or higher.

The first two waves of data were collected in the third month of the spring semester (i.e., May) of 2018 (Wave 1, Grade 3 and Grade 4) and 2019 (Wave 2, Grade 4 and Grade 5). Due to the COVID-19 pandemic, children returned to school in the middle of May 2020. The third wave of data (Wave 3, Grade 5 and Grade 6) was collected in late June and early July 2020. All students attended school in-person during that period of time. Prior to data collection, researchers sent consent letters to students, parents, teachers and school principals, in which the research aims and procedures were described briefly. The children involved were offered a gift (about \$1). Through these procedures, 94.5% of the children contacted for the study both

received parental permission to participate and gave their assent. The participants completed a battery of self-report measures regarding their social goals and peer nominations regarding bullying and social status during a single class period in schools. There were also other measures not utilized in the present study. To ensure confidentiality and anonymity, everyone also received a list of their classmates with their corresponding three-digit numbers. These numbers were used to respond to the peer nomination questions, so no names were presented in the questionnaires. Answering the questionnaires took approximately 40 minutes. During the surveys, school teachers were not present. The research design and procedure were reviewed and approved by the Human Subjects Research Ethics Committee in the department of psychology in Shandong Normal University.

3.2.2 The LSCCA sample

The data used in the study III are derived from the Longitudinal Study of Chinese Children and Adolescents (LSCCA) in Jinan, China. Started in 2006 and completed in 2015, LSCCA is a longitudinal study of children's and adolescents' psychosocial development and their family and peer contexts.

The study participants were 2,643 third- and fourth-grade children at Wave 1 (20.8% fourth-grader, 47.8% girls, $M_{\text{age}} = 10.01$ years, $SD_{\text{age}} = 0.53$), recruited from 51 classrooms (including fifteen grade 3 classrooms and fourteen grade 4 classrooms) in 14 primary schools in Jinan, P.R. China. Nearly all of the participants were Han Chinese ethnicity (the vast majority ethnic group in China, at 92% of total population) and native Mandarin speakers (the majority language in China, at 70% of total population). Due to the one-child per family policy in China from 1979 until 2015, 89.5% of the participants had no siblings. In our sample, 85.4% of mothers and 91.4% of fathers had an educational attainment of senior high school degree or higher. Both the median and mean monthly total family income were between 4,000 and 5,000 yuan (approximately US \$576 to \$720). Overall, the sample was representative of children in urban China, in terms of ethnicity, parental education level, and household income per month.

Three waves of data were collected in the third month of Spring semester of 2008 (Wave 1, Grade 3 and Grade 4), 2009 (Wave 2, Grade 4 and Grade 5) and 2010 (Wave 3, Grade 5 and Grade 6). Attrition was minimal: of the 2643 students who completed the questionnaires in 2008, 98.6% ($n = 2589$) participated in 2009. During the data collection, 96.5% students ($n = 2550$) remained in the same class. Prior to data collection, we sent consent letters to students, parents, teachers, and school principals, in which the research aims and procedures were briefly described. The children involved acquired a gift (about \$1). Through these procedures, 98.4% of the children contacted for the study both received parental consent to participate and

gave their assent. The participants completed a battery of self-report measures regarding their social experiences and emotional adjustment and peer nominations regarding friendships and victimization during a single class period in schools. There were also other measures not utilized in the present study: answering the questionnaires took approximately 40 minutes. In addition, each child was asked to take home an envelope, which contained a parental questionnaire concerning demographic information and other variables not utilized in the present study. The parent (the mother in 95% of cases) completed the questionnaire, and children handed in the enveloped questionnaire to the head teachers the following day. The research design and procedure were reviewed and approved by the Human Subjects Research Ethics Committee in the department of psychology in the first author's university.

3.3 Measures

Given that all the measures were originally developed in English, a standard translation and back-translation procedure was used to ensure equivalence of all the measures between the original English version and the Chinese translation. This consisted of first translating the scale from English into Chinese and then from Chinese back into English and finally evaluating the level of agreement between the original and back-translated English versions. Two bilingual (English and Chinese) researchers in developmental psychology and a professional translator carried out the process. A summary of all the variables used in the studies is shown in Table 1.

Individual-level variables

Demographic variables. Demographic characteristics, including gender, grade and class, were reported by the children themselves.

Bullying. In study I, Bullying was assessed with the bullying subscale from the Participant Role Questionnaire (Salmivalli & Voeten 2004). To begin with, the research assistants gave the participants a definition of bullying, which highlighted its intentionality, repetition, and the power imbalance. Then, children were asked to nominate up to three classmates who fit the description in three items about bullying: 'Starts bullying', 'Makes the others join in the bullying', and 'Always finds new ways of harassing the victim' (Salmivalli & Voeten 2004). For each item, a proportion score was calculated for each child by dividing the number of raw nominations by the number of nominators within each classroom. Scores for each item ranged from 0 (no nominations) to 1 (nominated by all classmates). The three items' scores were averaged to calculate bullying scores, with a higher score indicating more bullying behavior.

Table 1. Summary of Study Variables

STUDY	LEVEL	CONSTRUCT	MEASURES
	Individual	Gender	0 = girl, 1 = boy
		Social goals	Social Goals Questionnaire
		Bullying	Participant Role Questionnaire
	Classroom	Grade	0 = grade 3 and grade 4, 1 = grade 7
		Class size	Number of students
		Classroom Gender Distribution	Class proportion of boys
		Classroom status hierarchy	SD of peer-perceived popularity
	Individual	Gender	0 = girl, 1 = boy
		Social goals	Social Goals Questionnaire
		Bullying	Olweus Scale
	Classroom	Grade	0 = grade 3 and grade 4, 1 = grade 7
		Class size	Number of students
		Classroom-level reinforcing and defending behavior	Participant Role Questionnaire Mean of individual reinforcing and defending behavior
	Individual	Gender	0 = girl, 1 = boy
		Peer victimization	Multidimensional Peer Victimization Scale
		Depressive symptoms	Children's Depression Inventory
		Received friends nomination	Peer-nominated best friends
		Social self-concept	Self-Perception Profile for Children
	Classroom	Class size	Number of students
		Grade	0 = grade 2, 1 = grade 3
		Victimization centralization	SD of peer victimization
		Classroom-level victimization	Mean of peer victimization

In study II, Bullying was measured by six self-report items from the ‘bullying others’ subscale of the Olweus Bully/Victim Questionnaire (Olweus, 2006). We relied on self-reports rather than peer reports to capture the change or continuity in bullying over time, while avoiding the influence of students’ reputational biases among peers (Olweus, 2013). After given the definition of bullying, highlighting its intentionality, repetition, and the power imbalance, participants were asked to report

the frequency with which they had engaged in physical, verbal, and indirect bullying on a five-point scale, ranging from 0 (*never*) to 4 (*several times a week*). At each wave, the six items were averaged to calculate bullying scores.

Social dominance goals. Social dominance goals were assessed by three items from the Social Goals Questionnaire (Jarvinen & Nicholls, 1996; Kiefer & Ryan, 2008). One item from the original scales was excluded as it lowered the reliability of the scale in this sample (i.e., ‘*When I am with people my own age, I like it when I make them do what I want*’). Participants were asked to rate each item on a five-point scale (e.g., ‘*When I’m with people my own age I like it when they worry that I’ll hurt them*’; 1 = *not at all true of me*, 5 = *really true of me*). Scores for the three items were averaged to create the social dominance goals measure, with a higher score indicating higher endorsement of social dominance goals.

Depressive symptoms. Depressive symptoms were assessed by a 10-item short form of Children’s Depression Inventory (CDI, Kovacs, 1992) at Wave 1 and Wave 3. For each item, participants identified one of the three statements that best described themselves in the past two weeks (e.g., “*I am sad occasionally*”, “*I am sad often*” and “*I am sad all the time*”), with higher mean scores of the 10 items indicating more severe symptoms. The Chinese version of CDI was modified and proved to be reliable and valid by Chen and colleagues (Chen et al., 1995), and has demonstrated good test-retest reliability and internal consistency in previous studies (Cao et al., 2018; Zhang et al., 2015). The Cronbach’s α for depressive symptoms from Wave 1 to Wave 3 were .80, .81 and .83, respectively.

Peer victimization. Victimization was measured via a six-item peer-nomination scale. Children were asked to nominate up to three classmates who fit two items about physical (“*get hit a lot*”, “*get pushed or shoved by peers*”), verbal victimization (“*are made fun of*”, “*are called a nasty name*”), and relational victimization (“*are left out of the group at activity time*”, “*Other kids tell rumors about them behind their backs*”) in the school context. For each item, a proportion score was calculated by dividing the number of nominations received by each child by the number of students within the classroom. Each item was then scored from 0 (no nominations) to 1 (nominated by all classmates). The total peer victimization score was calculated by averaging across the six item scores.

Received friendship nominations. Received friendship nominations were assessed through a standard friendship nomination procedure, i.e. children were asked to nominate up to three best friends in the classroom (Terry, 2000). The number of received nominations was used as a proxy for youth’s desirability as a friend. This approach could mitigate the methodological limitations related to using reciprocal friendships (underestimation of friends) and given nominations (overestimation of friends, Schacter & Juvonen, 2018). To permit appropriate comparisons, each child’s received nominations were divided by the number of

students providing nominations within the classroom. The proportion score thus ranges from 0 to 1, higher scores indicating more received friendship nominations.

Social self-concept. Social self-concept was assessed via four items from the social acceptance subscale from Self-Perception Profile for Children (SPPC; Harter, 1985) which has been widely used in previous studies (Troop-Gordon & Ladd, 2005). The four items utilized in the current study were: “*Easy to make friends*” “*Most peers like them*” “*Popular with peers*” “*Important to classmates*”. They were selected because they best reflected children’s self-perceptions regarding their social competence and social acceptance, while not overlapping with other constructs; for instance, two items (i.e., “*Have a lot of friends*” and “*Do things with a lot of kids*”) were excluded due to clear overlap with having friends. For each item, children were asked to indicate which of the two children they most resembled—one doing well in the relevant domain or another who was not. Participants were then asked whether the selected description was “really true for me” or “sort of true for me”. Each item was scored from 0 to 3, with higher scores indicating more positive self-perceptions.

Classroom-level variables

Classroom size. Classroom size was the number of students in a classroom.

Classroom gender distribution. Classroom gender distribution was indexed by the classroom proportion of boys, i.e., dividing the number of boys by the number of students in a classroom.

Classroom Status Hierarchy. The level of classroom status hierarchy was measured by the standard deviation of individual perceived popularity scores within a classroom (Garandean et al., 2011; Zwaan et al., 2013). For perceived popularity, participants received a roster of all consenting students in their classroom and were asked to indicate ‘*Who is the most popular one in your classroom*’. Perceived popularity was indicated by a proportion score, which was created by dividing the total number of nominations a student received by the number of nominators within each classroom. The standard deviation of the proportion score of popularity was computed within each classroom to reflect classroom status hierarchy. A large standard deviation of perceived popularity within the classroom indicates a higher degree of classroom status hierarchy (Garandean et al., 2011).

Classroom bystander behaviors. Bystander behaviors (reinforcing bully, defending victim) were assessed with the Participant Role Questionnaire (Salmivalli & Voeten, 2004). The Reinforcer scale included the following three items: ‘*Comes around to see the situation*’, ‘*Laughs*’, ‘*Incites the bully by shouting or saying: Show him/her*’. The Defender scale also consisted of the three items: ‘*Comforts the victim or encourages him/her to tell the teacher about the bullying*’, ‘*Tells others to stop bullying*’, ‘*Tries to make others stop bullying*’. For each item, children were asked to nominate up to three classmates who fit the description. A proportion score was calculated for each child by dividing the number of nominations received by the

number of nominators within each classroom. Scores for each item ranged from 0 (*no nominations*) to 1 (*nominated by all classmates*). The three items' scores were averaged to calculate reinforcing and defending scores, with a higher score indicating more reinforcing and defending behavior. Classroom levels of reinforcing and defending were derived by averaging individual reinforcing and defending scores at each wave for each classroom (Laninga-Wijnen et al., 2021; Salmivalli et al., 2011).

Classroom-level victimization. The victimization level in each classroom was calculated by averaging individual peer-reported victimization scores for each classroom (Sentse et al., 2007).

3.4 Statistical Analyses

In each of studies, the descriptive statistics and correlations were conducted through the SPSS 27.0. Given that the three studies were to test effects of classroom variables, multilevel models were used to examine the focal research questions specific to each study.

The objective of Study I was to test the moderating effect of the association between social dominance goals and bullying. Two-level multilevel modelling was employed (Mplus 7.0, Muthén & Muthén, 2012). Data analyses included three stages. First, an unconditional model was conducted without any individual- or classroom-level predictors to obtain intraclass correlation (ICC, the proportion of total variance that is between classrooms) of bullying behavior. Second, individual-level predictors including gender, social dominance goals, and gender \times social dominance goals interaction, were added into the unconditional model to test the prospective association between social dominance goals and bullying and its gender differences. Third, to test whether the association between social dominance goals and bullying varied between classrooms as function of grade, class size, classroom proportion of boys and classroom status hierarchy, classroom-level predictors and cross-level interactions were added to the models.

Study II aimed to test how classroom bystander behavior influenced on the time-invariant and time-varying effects of social dominance goals. Three-level multilevel modelling was conducted in Mplus 8.3 (Muthén & Muthén, 1998–2019), with repeated measures (Level 1) nested in individuals (Level 2), and individuals nested in classrooms (Level 3). Analyses were performed in three steps. First, an unconditional model was conducted without any predictors to calculate ICCs for bullying behavior at each level. Second, time-varying social dominance goals, time-invariant social dominance goals and classroom-level predictors were added to test their main effects on bullying behavior. Third, to test whether the effect of time-varying and time-invariant social dominance goals on bullying were moderated by

gender, classroom proportion of boys and classroom bystander behaviors, several interaction terms were added into the model. Because of the nested nature of data, classroom-level predictors were included as time-invariant variables.

The purpose of Study III was to examine the healthy context paradox and the potential mechanisms. Therefore, the multilevel structure equation models were performed. First, we examined the moderating role of classroom-level victimization in the association between peer victimization at Wave 1 and depressive symptoms at Wave 2 and Wave 3. In this model, we specified pathways from individual-level and classroom-level victimization and the cross-level interaction to depressive symptoms at Wave 2 and Wave 3. The cross-level interaction was modelled by examining between-classroom variability in the associations between peer victimization at Wave 1 and depressive symptoms at Wave 2 and Wave 3 (i.e., random slopes) and predicting this variability by classroom-level victimization. In this model, gender, grade, class size and prior depressive symptoms were included as control variables.

Next, two mediated moderation models were employed to test whether the moderating role of classroom-level victimization was mediated by received friendship nominations and social self-concept at Wave 2, respectively. Therefore, in addition to prior model, the random slopes, and intercepts of paths from peer victimization at Wave 1 to mediators (i.e., received friendship nominations and social self-concept) at Wave 2 were allowed to vary across the classrooms and be predicted by classroom-level victimization. Moreover, the predictive effects of the two mediators on depressive symptoms at Wave 3 were estimated. In these two models, we predicted depressive symptoms at Wave 2 and 3, while controlling for gender, grade, class size, and prior depressive symptoms. In addition, we controlled for prior levels of the two mediators by regressing the mediator at Wave 2 on the mediator at Wave 1. The mediated moderation model implies that classroom-level victimization would moderate the victimization-depressive symptoms association through received friendship nominations or social self-concept. Thus, this model requires received friendship nominations or social self-concept would mediate the effect of the individual-level victimization \times classroom-level victimization on depressive symptoms, i.e., their 95% bootstrap confidence intervals of indirect effects did not contain zero. This confidence intervals were calculated based on 20,000 bootstrap samples by R software (Preacher & Selig, 2012).

In study I and III, all individual-level continuous predictors were centered at the classroom-mean, and all classroom-level predictors were centered at the grand-mean. In study II, time, coded as time 1 = 0, time 2 = 1 and time 3 = 2, was used to represent the number of waves since the start of the study. To test the time-varying effect of social dominance goals at Level 1, social dominance goals were centered at the within-person mean. To capture time-invariant effect of social dominance goals, the mean of social dominance goals across time was entered at Level 2 and was

centered at the classroom mean. Level 3 continuous predictors, including classroom size, classroom gender distribution, and classroom bystander behaviors, were centered at the grand mean. To avoid multicollinearity, gender was weighted-effects-coded as boy = .457 and girl = -.543, to ensure that the values for gender added up to 0 for the sample (te Grotenhuis et al., 2017). To help interpret significant interaction effects, we analyzed the association between peer victimization and outcomes by comparing simple slopes for low (-1 SD) and high (+1 SD) levels of moderators (Aiken & West, 1991). To minimize biased estimation due to variable non-normality, all the models were estimated using maximum likelihood estimation with robust standard errors (Muthén & Muthén, 2012). Missing data were handled by using the full information maximum likelihood (FIML) method, in which parameter estimates were based on all children with at least one observation on the outcome measure.

4 Overview of the Studies

STUDY I

Pan, B., Zhang, L., Ji, L., Garandeanu, C. F., Salmivalli, C., & Zhang, W. (2020). Classroom status hierarchy moderates the association between social dominance goals and bullying behavior in middle childhood and early adolescence. *Journal of Youth and Adolescence*, 49, 2285-2297.

Bullying behavior is motivated by a desire for high status, influence, and visibility among peers. Since goals and goal-concordant behaviors can be activated and aroused by social contexts, it is critical to understand the role of the context in the association between social dominance goals and bullying. Classroom status hierarchy is a possible contextual factor that moderates this association. A clear status hierarchy, which reflects strong classroom inequalities in social status, might promote bullying behavior among social dominance-oriented children by making bullying more socially rewarding and mitigating risks of physical hurt and social costs (Reijntjes et al., 2013). It was hypothesized that the association between social dominance goals and bullying would be stronger in classrooms with higher levels of status hierarchy. In the current study, classroom peer status hierarchy was assessed by the within-classroom standard deviation in perceived popularity. Social dominance goals were obtained through self-reports. Bullying was measured via peer nominations. The participants were 1603 children attending grade 3 ($n = 558$, 46.2% girls, $M_{\text{age}} = 9.33$ years, $SD = 0.44$), grade 4 ($n = 491$, 45.0% girls, $M_{\text{age}} = 10.31$ years, $SD = 0.38$), and grade 7 ($n = 554$, 49.3% girls, $M_{\text{age}} = 13.2$ years, $SD = 0.46$) in China, followed for one year. Multilevel analyses revealed that social dominance goals at Wave 1 predicted increases in bullying at Wave 2 only in classrooms with higher status hierarchies, after controlling for gender, grade, classroom size, and classroom gender distribution. These findings indicate that children who strive for social dominance are more likely to bully others when power is less equally distributed in the classroom.

STUDY II

Pan, B., Garandeau, C. F., Li, T., Ji, L., Salmivalli, C., & Zhang, W. (2020). The Dynamic Associations between Social Dominance Goals and Bullying from Middle to Late Childhood: The Moderating Role of Classroom Bystander Behaviors. *Journal of Educational Psychology*, In Press. doi: 10.1037/edu0000776

Social dominance goals have been conceptualized as orientations towards powerful and prominent positions in the peer group. Although previous studies have indicated that endorsing social dominance goals is positively associated with bullying behavior in childhood and adolescence, most studies have regarded the endorsement of social dominance goals as a relatively stable characteristic and could not detect within-person variability across time. Contemporary interpersonal theory has emphasized the dynamic nature of interpersonal goals — interpersonal goals are regarded as dynamic, rather than static, across situations and over time within a person. The first aim of this study was to examine the time-varying (year-to-year fluctuation) and time-invariant (average level) effects of social dominance goals on bullying. The second aim was to test whether the associations between children’s social dominance goals and bullying could depend on classmates’ bystander behavior. Reinforcers of bullies might encourage dominance-seeking children to bully others by providing social benefits through positive verbal or nonverbal feedback; In contrast, defenders, who take sides with the victims, could challenge the power of bullies, which could increase the costs of bullying. Data was collected from a Chinese sample of 3rd-graders ($n = 615$, 46.5% girls, $M_{age} = 9.29$ years, $SD = 0.40$) and 4th-graders ($n = 559$, 44.9% girls, $M_{age} = 10.31$ years, $SD = 0.40$) in 4 schools at three time-points (in May 2018, May 2019, and June 2020). Social dominance goals and bullying were self-reported. Classroom reinforcing and defending were assessed by averaging peer-reported reinforcing and defending scores for each classroom at each time point. Three-level models revealed significant time-variant and time-invariant effects of social dominance goals on bullying in classrooms with relatively low levels of defending behavior. These results suggest that both persistent and temporary social dominance goals might motivate children to engage in bullying, but peers’ defending behaviors mitigate this tendency.

STUDY III

Pan, B., Li, T., Ji, L., Malamut, S., Zhang, W., & Salmivalli, C. (2021). Why Does Classroom-Level Victimization Moderate the Association Between Victimization and Depressive Symptoms? The “Healthy Context Paradox” and Two Explanations. *Child Development, 92*, 1836-1854.

There is accumulating evidence that victimized children are more likely to exhibit depressive symptoms in relatively “healthy” contexts, i.e., classrooms or schools where the average level of victimization is low — a phenomenon that has recently been referred to as the Healthy Context Paradox. This intriguing phenomenon, however, has so far been studied with Western samples, in Europe and in North America. More importantly, the mechanisms accounting for the healthy context paradox have not been directly examined. The person-group dissimilarity model postulates that the group’s attitude towards children’s behavior depends on normative behavior in the group. Accordingly, victims are often viewed as “social misfits” in classrooms with low levels of victimization, thus more likely to be rejected by the mainstream peer group and find it difficult to befriend other children in classrooms with low victimization. Moreover, based on social comparison theory, individuals tend to evaluate themselves by comparing their experiences to those of others. When children are victimized in classrooms where few other peers are victimized, the victims of peer aggression might make more negative self-evaluations because they may be more likely than their non-victimized peers to engage in upward comparisons. The present longitudinal study examined whether and why classroom-level victimization moderated the prospective association between peer victimization and depressive symptoms with 2,643 third- and fourth-graders ($M_{\text{age}} = 10.01$ years) in China. Multilevel structure equation models revealed that peer victimization was more strongly associated with increasing depressive symptoms in classrooms with lower classroom-level victimization. Moreover, two mechanisms were identified to explain the moderating effect of classroom-level victimization. First, low classroom-level victimization reduced victimized children’s received friendship nominations from peers, thereby leading to increases in depressive affect. Second, low classroom-level victimization affected victimized children’s depressive symptoms through damage to their social self-concept. These findings provide support for the “healthy context paradox” in the Chinese culture, and highlight the mechanisms of this phenomenon.

5 Discussion

5.1 The group nature of bullying

School bullying is a serious concern for children's social and emotional development as well as for their academic functioning (Hawker & Boulton, 2000; Rudolph et al., 2001; Ladd et al., 2017). So far, the idea that bullying is a group process has been well accepted among researchers and practitioner (Salmivalli, 2010). Supporting this idea, previous studies have stressed the roles of classroom contexts in the occurrence and maintenance of bullying and victimization, as well as the consequences of bullying (Olthof et al., 2011; Saarento et al., 2015; Salmivalli, 2010; Salmivalli et al., 2021). This thesis advances the understanding of group nature of bullying by investigating (1) the motivation of bullying; (2) whether classroom features could promote or inhibit the bullying behavior of children oriented in social dominance goals (Salmivalli & Peets, 2008) and (3) why victimized students are more likely to be maladjusted in relatively "healthy", low-victimization contexts (Garandau & Salmivalli, 2019).

Bullying is recognized to be driven by the quest for high status and social dominance in the peer group (Salmivalli & Peets 2008). In line with previous cross-sectional studies (Caravita & Cillessen 2012; Olthof et al., 2011; Sijtsema et al., 2009), Study I revealed that social dominance goals predicted increases in bullying over time using longitudinal design. Using a three-year longitudinal design, Study II further demonstrated that both time-invariant and time-varying components of social dominance goals were related to bullying from middle to late childhood. Notably, there are differences between studies in the measurement of bullying (peer-reports in Study I vs. self-reports in Study II). Peer-reports could reduce underestimation of bullying due to the possibility of socially desirable responding and self-serving bias, whereas self-reports could better capture fluctuations in the frequency of bullying behavior (Olweus, 2013). These results underscore the determining role of endorsing social dominance goals in the development of bullying behavior, regardless of the research design and measurement issues.

The results of Study I also revealed that the association between social dominance goals and bullying did not vary across grade levels (grade 3 and grade 4 vs. grade 7). This finding is consistent with previous studies (Caravita & Cillessen,

2012), indicating that the quest of social dominance equally predicts bullying in middle childhood and early adolescence. However, it should be noted that 7th-graders might not be the best representatives of early adolescents when comparing the strength of the association between social domination goals and bullying between middle childhood and early adolescence. As grade 7 is the first year of secondary school, the changes in bullying as well as in social dominance goals might be due to school transition. That is, given the re-establishment of hierarchy during school transition, both endorsement of social dominance goals and bullying behavior tend to increase (Dawes & Xie, 2017; Pellegrini & Long, 2002). To illuminate the potential grade differences, future studies would benefit from testing the developmental changes with, for instance, third- to ninth-grade children, or with a follow-up sample from grade 3 to grade 9.

Moreover, an unexpected finding that bullying predicted social dominance goals (and not only the other way around) was found in Study II. This finding is in line with the “scar hypothesis” highlighting that psychopathology might change children’s personalities in lasting ways. Bullies may initially prioritize access to material resources (i.e., toys, money), dominance position, and romantic relationships (Volk et al., 2012). Achieving such benefits and privileges might not only reinforce their behavior, but also consolidate the idea that social dominance goals can be easily achieved. Supporting this idea, Dumas et al. (2019) found that relational aggression predicted the increases in need of popularity five months later. Considering the limited evidence, future studies are needed to examine the bidirectional association between social dominance goals and bullying.

As bullies want to gain social dominance in the peer group, they should be likely to choose place where they could achieve their goals. From the goal-framing approach (Lindenberg, 2013), dominance-seeking children were more likely to attack others in classroom where clear social benefits and low costs are related to bullying (Veenstra et al., 2007). Finding from the Study I and II indicated that social dominance goals combined with both the structure of peer network (i.e., classroom status hierarchy) and peer dynamics (i.e., defending behavior) in the classroom to impact the bullying behavior of children. In classrooms with high social status hierarchy, aggressive behavior is associated with higher popularity (Garandeanu et al., 2011; Laninga-Wijnen et al., 2019) and victims are more easily dominated (Ahn et al., 2010). However, classmates’ defending behavior could attach costs to the bullying behavior through comforting victims, reporting to authority, or confronting the bullies (Lambe & Craig, 2021; Salmivalli et al., 2011; Yun, 2020). These two studies emphasized that potential costs and benefits of bullying in the contexts might influence the behavioral decision of children who endorse social dominance goals.

The likelihood of victimized children becoming maladjusted also depend on contextual factors. Study III revealed that low classroom-level victimization could

exacerbate longitudinal association between peer victimization at Wave 1 and depressive symptoms at Wave 2. This is consistent with prior work regarding “healthy context paradox” (Bellmore et al., 2004; Garandeau et al., 2018; Huitsing et al., 2019). I also examined an interpersonal (i.e., received friendship nominations) and a cognitive (i.e., social self-concept) mechanism potentially underlying the phenomenon. The findings indicate that low classroom-level victimization reduced victims’ friendship opportunities and social self-concept, which in turn led to more depressive symptoms over time. Although the two mechanisms were tested at individual level, they are also quite related to the group process. The received friendship nominations reflect how children interact with others (Rambaran et al., 2020), and social self-concept reflect children’s perception of their competence regarding interactions with peers (Ladd & Troop-Gordon, 2003). Thus, this study provides further evidence for group processes in consequences of victimization.

5.2 Cultural implications

In this thesis, three studies were conducted with a large Chinese sample. Given that our findings echo the theories and studies has been previously documented in various Western countries (e.g., Garandeau & Salmivalli, 2019; Saarento et al., 2015), the three studies further support the cross-cultural generalizability. Despite the strength, there are three caveats to keep in mind when interpreting the results.

First, cultural appropriateness of measures should be taken into consideration. Although all the measures were adapted by a standard translation and back-translation procedure, some words were still hard to translate into Chinese from English. For example, the English word “popularity” does not have a direct translation to Chinese characters. In this study, “Shou huan ying” (受欢迎) was used as approximation of popularity. This word contains the meaning of visibility, but might not necessarily to represent the meaning of dominance or prestige. Future studies are still needed to find the best translation of popularity in Chinese and provide more evidence for its validity.

Second, Chinese culture contexts and educational system between might influence peer interactions. Due to the emphasis on interdependence in the collectivist culture, Chinese children tend to conform to the norm of the peer group (Chang, 2004). Moreover, in the Chinese educational system, classroom composition was highly stable. In such stable contexts, children often have fixed status and roles, e.g., victims and bullies (Rambaran et al., 2020). As such, the classrooms contexts may exert an even stronger influence on victims and bullies. On the other hand, classroom size in China is typically larger than in Western countries. Larger classrooms are more likely to be divided into multiple peer groups, which might reduce the impact of the whole-classroom norms on children’s behavioral

decisions. Therefore, the present findings should be replicated in other cultures in future studies.

Third, China is a country with 56 ethnic groups covering vast geographical areas and diverse cultures. It is worth to investigate whether ethnic minority students were at higher risk victimization. According to the LSCCA sample in the study III, there were no differences between the ethnic majority (96.6%) and the ethnic minority (3.4%) in terms of self-reported and peer-reported victimization from grade 3 to grade 6 ($t < 0.97$, $p < 0.34$, Cohen's $d < 0.30$). Using two national representative samples, Ba (2019) also revealed no significant differences in being bullied between the ethnic majority and minority. This might be because the overall appearance and preference between majority and minority becomes more similar now, especially for the younger generations in urban areas.

5.3 Strengths and Limitations

One of the major strengths of this thesis lie in the longitudinal designs employed. By taking the baseline levels of outcomes and the time sequence into account, such a design permits stronger conclusions concerning causality (Maxwell & Cole, 2007). The three-time-point longitudinal design in Study III allowed to disentangle the time-varying and the time-invariant effects of social dominance goals (Curran & Bauer, 2011). Furthermore, the three studies share methodological strengths by using multilevel modelling which could account for the nested nature of data (i.e., repeated measures nested in individuals and individuals nested in classrooms). Through this method, this thesis extends our understanding on the role of classroom contexts in bullying dynamics.

Despite these strengths, it is vital to consider two methodological limitations. First, the measurement of peer nomination data (e.g., bullying and popularity in Study I, reinforcing and defending behavior in Study II, and victimization and friendship in Study III) was based on limited nominations in which children were only allowed to nominate a maximum of three classmates according to the description. Therefore, this method might underestimate the prevalence and the inter-individual variability of peer nominated constructs, especially for positive behavior, thereby leading to attenuated effect sizes and parameter estimates (Gommans & Cillessen, 2015). However, comparisons between limited and unlimited procedures for peer nominations suggest that they yield comparable results (Gommans & Cillessen, 2015). To reduce the bias of limited nominations, future research should examine these questions using unlimited nominations.

Another limitation of the empirical studies assessing bullying and victimization is the neglect of subtypes (e.g., physical, verbal, and relational forms) of bullying and victimization. In terms of bullying, relational bullying may be a more effective

strategy in acquiring and maintaining social dominance in the peer group, especially in the period of adolescence (Cillessen & Mayeux, 2004; Ojanen & Findley-Van Nostrand, 2014). Children who endorse social dominance might be more likely to exhibit relational than physical and verbal bullying. Regarding victimization, a longitudinal study found that physical victimization, but not verbal and relational victimization, were susceptible to the healthy context (Zhao & Li, 2022). That is, only physically victimized children were more likely to be depressed in the cliques with low levels of victimization. Considering these distinctions between physical, overt, and relational forms of bullying and victimization would be an important direction for future research.

5.4 Practical implications

Study I and Study II highlight the importance of identifying children with social dominance goals. That is, to prevent bullying before it starts, teachers need to know which students are always eager for a dominant position among classmates, as well as children's momentary desire to be dominant. It would be useful to teach dominance-aspiring children alternative, prosocial ways to obtain status, power, and dominance. According to the Meaningful Roles approach (Ellis et al. 2016), teachers could assign these children to high status jobs that require responsibility and altruism (e.g., technology assistant) and reinforce their behaviors through peer-to-peer praise notes. However, more evidence of the effectiveness of this approach is needed before its use can be recommended, as there is a risk that dominance-oriented children may use their newly gained high status (from the meaningful roles tasks) to engage in bullying.

The findings from Study I and II showed that egalitarian classroom structures and classroom defending behaviors mitigated the positive association between social dominance goals and bullying. To deter the likelihood of achieving social dominance through bullying, teachers could create egalitarian environments and promote defending behavior in the classrooms. Specifically, to reduce the hierarchical relationships between children, teacher could try to mitigate status extremes and support isolated students (Garandeanu et al. 2011, 2014; Gest & Rodkin 2011). Considering the characteristics of Chinese classrooms, teachers should not grant excessive power to specific students. To increase defending behaviors in the classroom, it would be helpful to bolster students' awareness of the important role that defenders have in bullying incidents, improve their empathy for the victims, and teach them effective strategies to support the victim (Salmivalli et al., 2014). Moreover, to inhibit the bullying behavior of dominance-oriented children, a peer support group could be formed in which children are encouraged to challenge the

bullies, help victimized peers, and report bullying to authority (van der Ploeg et al., 2016).

Despite that Study I and Study II showed that bullying needs to be tackled by whole classroom strategies, we cannot forget the remained and stable victims during the intervention. According to our results and previous studies (Garandeanu et al., 2018; Huitsing et al., 2019), it seems that reducing the overall level of victimization in a classroom could in some cases lead to a more adverse situation for the remaining victims. Thus, it is important to improve and adjust anti-bullying programs to improve the well-being of victimized children in the most challenging cases, where victimization could not be immediately stopped (Garandeanu et al., 2018). Above all, anti-bullying programs should focus on more than just prevention and decreasing the overall prevalence of victimized students. More efforts should be made to identify the specific victims and recognize their position in the classroom when implementing anti-bullying programs. There should be procedures at place in schools to make reporting victimization easy, to tackle it effectively, and to follow up on each case to ensure that adult intervention was successful (Johander et al., 2021). In addition, teachers could advance victimized children's friendships with different activities developed for this purpose, or possibly with a support group approach, in which the group members are encouraged to help victimized peers improve their situation (van der Ploeg et al., 2016). Finally, teachers could provide victimized children information regarding others who also have faced victimization, to help victimized children realize that there are others who share their plight, and that the situation is not their fault.

5.5 Future Research

5.5.1 Potential Mechanisms of Social Dominance Goals-Bullying Association

This thesis has assumed that potentially social benefits and costs of bullying related to classrooms contexts could influence the bullying behavior of children who were striving to social dominance goals. However, this mechanism was not directly examined. One avenue for future studies is to examine the psychological processes that encourage or inhibit bullying behavior of social dominance-oriented children in certain social contexts. Specifically, future studies should uncover the function of the perceived outcomes (i.e., costs and benefits) of bullying behavior in the association between social dominance goals and bullying. It is hypothesized that in the classroom where bullying is highly rewarded and with minimal costs dominance-oriented children may be more likely to detect higher social benefits and lower costs, thereby engage in bullying behavior.

Other social-cognitive processes might also contribute to the understanding of the association between social dominance goals and bullying. Affective empathy and moral disengagement are possible mediators in the social dominance goals-bullying association. Longitudinal studies have shown that affective empathy predicted decreases (Schultze-Krumbholz et al., 2013; Stavrinides et al., 2010), while moral disengagement predicted increases in bullying (Falla et al., 2020; Wang et al., 2017). Moreover, as bullying could cause physical and psychological harm (Olweus, 2013), the dominance-hungry children might reduce the empathy towards victims (van Hazebroek et al., 2017) and increases the moral disengagement of bullies (Hinrichs et al., 2012; Romera et al., 2021) to mitigate the torment by the “Worm of Conscience”. Deepen the understanding potential mechanisms of social dominance goals-bullying association may be helpful to develop new strategies to intervene the dominance-aspiring bullies.

5.5.2 Other Mechanisms and Outcomes of Healthy Context Paradox

Although Study II in this thesis investigated two potential mechanisms explaining the moderating role of classroom-level victimization in the victimization-depressive symptoms association, there may be other mechanisms that also explain the healthy context paradox. For example, classroom features may affect victimized children’s adjustment via influencing causal attributions that they make about their situation. Specifically, when victimized children find that others are hardly mistreated, they are more likely to attribute the causes of their experience as internal (“it must be something about me”), stable (“things haven’t changed for me”), and uncontrollable (“There is nothing I can do about it”) (Schacter & Juvonen, 2015, 2019). Such characterological self-blame has been related to victims’ mental health problems (Perren et al., 2013).

Moreover, previous studies regarding healthy context paradox mainly focused on victims’ internalizing problems, such as social anxiety (Bellmore et al., 2004), depressive symptoms (Garandeanu et al., 2018), and low self-esteem (Huitsing et al., 2019). Very little studies have investigated whether low classroom-level victimization could exert similar influence on victim’s externalizing problems. Using a genetically informed design, Brendgen et al. (2013) found that friends’ experience of victimization amplified victims’ aggressive behavior. On the contrary, a cross-sectional study revealed that there are stronger association between victimization and externalizing problems in classrooms with low levels of victimization (Liu et al., 2021). A recent longitudinal study also showed that victims committed more reactive forms of aggression after 2 years in the lower-victimization cliques, but not in the higher-victimization cliques (Zhao & Li, 2022). Considering

the inconsistency, more studies are still needed to examine the role of low level of victimization in the contexts in the victimization-externalizing association.

5.5.3 Multiple Indicators of Classroom Contexts

Although I examined three indicators of classroom contexts (classroom status hierarchy, classroom bystander behaviors, and classroom-level victimization) in this thesis, functions of other classroom characteristics still need to be tested. Bullying popularity norm, operationalized as the correlation between popularity and bullying, might moderate the association between social dominance goals and bullying. If bullying is positively associated with popularity in the classroom, bullying can become an important tool for gaining dominance position (Dijkstra et al., 2008). Thus, children who thrive for social dominance goals are more likely to bully others in the classroom where bullying behavior are rewarded by popularity. Furthermore, A recent study suggested that classroom-level defending increased victims' negative perceptions of classroom climate (Laninga-Wijnen et al., 2021). Thus, future research would benefit from examining the roles of multiple indicators of classroom contexts in development of bullying and victimization, as well as their consequences.

List of References

- Ahn, H. J., Garandeau, C. F., & Rodkin, P. C. (2010). Effects of classroom embeddedness and density on the social status of aggressive and victimized children. *The Journal of Early Adolescence, 30*, 76–101. <https://doi.org/10.1177/0272431609350922>
- Ba, Z., Han, Z., Gong, Z., Li, F., Zhang, H., & Zhang, G. (2019). Ethnic differences in experiences of school bullying in China. *Children and Youth Services Review, 104*, 104402. <https://doi.org/10.1016/j.chilyouth.2019.104402>
- Bellmore, A. D., Witkow, M. R., Graham, S., & Juvonen, J. (2004). Beyond the individual: The impact of ethnic context and classroom behavioral norms on victims' adjustment. *Developmental Psychology, 40*, 1159–1172. <https://doi.org/10.1037/0012-1649.40.6.1159>
- Brendgen, M., Vitaro, F., Barker, E. D., Girard, A., Dionne, G., Tremblay, R. E., & Boivin, M. (2013). Do other people's plights matter? A genetically informed twin study of the role of social context in the link between peer victimization and children's aggression and depression symptoms. *Developmental Psychology, 49*, 327–340. <https://doi.org/10.1037/a0025665>
- Bronfenbrenner, U., & Ceci, S. J. (1994). Nature-nuture reconceptualized in developmental perspective: A bioecological model. *Psychological Review, 101*, 568–86. <https://doi.org/10.1037/0033-295X.101.4.568>
- Cao, C., Rijlaarsdam, J., van der Voort, A., Ji, L.Q., Zhang, W. X., & Bakermans-Kranenburg, M. J. (2018). Associations Between Dopamine D2 Receptor (DRD2) Gene, Maternal Positive Parenting and Trajectories of Depressive Symptoms from Early to Mid-Adolescence. *Journal of Abnormal Child Psychology, 46*, 365–379. <https://doi.org/10.1007/s10802-017-0294-5>
- Caravita, S. C., & Cillessen, A. H. N. (2012). Agentic or communal? Associations between interpersonal goals, popularity, and bullying in middle childhood and early adolescence. *Social Development, 21*, 376–395. <https://doi.org/10.1111/j.1467-9507.2011.00632.x>
- Chang, L. (2004). The Role of Classroom Norms in Contextualizing the Relations of Children's Social Behaviors to Peer Acceptance. *Developmental Psychology, 40*, 691–702. <https://doi.org/10.1037/0012-1649.40.5.691>
- Chen, G., Zhang, W., Zhang, W., & Deater-Deckard, K. (2020). A 'defender protective effect' in multiple-role combinations of bullying among Chinese adolescents. *Journal of Interpersonal Violence, 35*, 1587–609. <https://doi.org/10.1177/0886260517698278>
- Chen, L., Zhang, W., Ji, L., & Deater-Deckard, K. (2019). Developmental trajectories of Chinese adolescents' relational aggression: Associations with changes in social-psychological adjustment. *Child Development, 90*, 2153–2170. <https://doi.org/10.1111/cdev.13090>
- Chen, X., Rubin, K. H., & Li, B. (1995). Depressed mood in Chinese children: Relations with school performance and family environment. *Journal of Consulting and Clinical Psychology, 63*, 938–947. <https://doi.org/10.1037/0022-006x.63.6.938>
- Cialdini, R. B., Demaine, L. J., Sagarin, B. J., Barrett, D. W., Rhoads, K., & Winter, P. L. (2006). Managing social norms for persuasive impact. *Social Influence, 1*, 3–15. <https://doi.org/10.1080/15534510500181459>

- 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/10.1111/J.1467-8624.2004.00660.X>
- Craig, W., & Pepler, D. (1998). Observations of bullying and victimization in the schoolyard. *Canadian Journal of School Psychology, 13*, 41–59. <https://doi.org/10.1177/082957359801300205>
- Crone, E. A., & Dahl, R. E. (2012). Understanding adolescence as a period of social-affective engagement and goal flexibility. *Nature Reviews Neuroscience, 13*, 636–650. <https://doi.org/10.1038/nrn3313>
- Curran, P. J., & Bauer, D. J. (2011). The disaggregation of within-person and between-person effects in longitudinal models of change. *Annual review of Psychology, 62*, 583–619. <https://doi.org/10.1146/annurev.psych.093008.100356>
- Custers, R., & Aarts, H. (2010). The unconscious will: How the pursuit of goals operates outside of conscious awareness. *Science, 329*, 47–50. <https://doi.org/10.1126/science.1188595>
- Dawes, M., & Xie, H. (2017). The trajectory of popularity goal during the transition to middle school. *The Journal of Early Adolescence, 37*, 852–883. <https://doi.org/10.1177/0272431615626301>
- de Bruyn, E. H., Cillessen, A. H. N., & Wissink, I. B. (2010). Associations of peer acceptance and perceived popularity with bullying and victimization in early adolescence. *The Journal of Early Adolescence, 30*, 543–566. <https://doi.org/10.1177/0272431609340517>
- 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>
- Dumas, T. M., Davis, J. P., & Ellis, W. E. (2019). Is it good to be bad? A longitudinal analysis of adolescent popularity motivations as a predictor of engagement in relational aggression and risk behaviors. *Youth & Society, 51*, 659–679. <https://doi.org/10.1177/0044118X17700319>
- 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>
- Falla, D., Ortega-Ruiz, R., Runions, K., & Romera, E. M. (2022). Why do victims become perpetrators of peer bullying? Moral disengagement in the cycle of violence. *Youth & Society, 54*, 397–418. <https://doi.org/10.1177/0044118X20973702>
- Fekkes, M., Pijpers, F. I., & Verloove-Vanhorick, S. P. (2005). Bullying: Who does what, when and where? Involvement of children, teachers and parents in bullying behavior. *Health Education Research, 20*, 81–91. <https://doi.org/10.1093/her/cyg100>
- Fite, P. J., Cooley, J. L., Poquiz, J., & Williford, A. (2019). Pilot evaluation of a targeted intervention for peer-victimised youth. *Journal of Clinical Psychology, 75*, 46–65. <https://doi.org/10.1002/jclp.22697>
- Gaffney, H., Ttofi, M. M., & Farrington, D. P. (2019). Evaluating the effectiveness of school-bullying prevention programs: An updated meta-analytical review. *Aggression and Violent Behavior, 45*, 111–133. <https://doi.org/10.1016/j.avb.2018.07.001>
- Garandeau, C. F. & Salmivalli, C. (2019). Can healthier contexts be harmful? A new perspective on the plight of victims of bullying. *Child Development Perspectives, 13*, 147–152. <https://doi.org/10.1111/cdep.12331>
- Garandeau, C. F., & Cillessen, A. H. (2006). From indirect aggression to invisible aggression: A conceptual view on bullying and peer group manipulation. *Aggression and Violent Behavior, 11*, 612–625. <https://doi.org/10.1016/j.avb.2005.08.005>
- Garandeau, C. F., Ahn, H. J., & Rodkin, P. C. (2011). The social status of aggressive students across contexts: The role of classroom status hierarchy, academic achievement, and grade. *Developmental Psychology, 47*, 1699–1710. <https://doi.org/10.1037/a0025271>
- Garandeau, C. F., Lee, I. A., & Salmivalli, C. (2014a). 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>

- Garandeau, C. F., Lee, I. A., & Salmivalli, C. (2014b). 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. (2018). Decreases in the proportion of bullying victims in the classroom: Effects on the adjustment of remaining victims. *International Journal of Behavioral Development*, *42*, 64–72. <https://doi.org/10.1177/0165025416667492>.
- Gest, S. D., & Rodkin, P. C. (2011). Teaching practices and elementary classroom peer ecologies. *Journal of Applied Developmental Psychology*, *32*, 288–296. <https://doi.org/10.1016/j.appdev.2011.02.004>
- Gini, G., Holt, M., Pozzoli, T., & Marino, C. (2020). Peer victimization and somatic problems: The role of class victimization levels. *Journal of School Health*, *90*, 39–46. <https://doi.org/10.1111/josh.12844>.
- Gommans, R., & Cillessen, A. H. N. (2015). Nominating under constraints: A systematic comparison of unlimited and limited peer nomination methodologies in elementary school. *International Journal of Behavioral Development*, *39*, 77–86. <https://doi.org/10.1177/0165025414551761>
- Harter, S. (1985). *Manual for the self-perception profile for children*. Denver, CO: University of Denver.
- Harter, S. (2006). The self. In N. Eisenberg (Ed.), *Handbook of child psychology: Vol. 3. Social, emotional, and personality development* (6th ed., pp. 505–570). Hoboken, NJ: Wiley.
- Hawley, P. H. (1999). The ontogenesis of social dominance: A strategy-based evolutionary perspective. *Developmental Review*, *19*, 97–132. <https://doi.org/10.1006/drev.1998.0470>
- Hinrichs, K. T., Wang, L., Hinrichs, A. T., & Romero, E. J. (2012). Moral disengagement through displacement of responsibility: The role of leadership beliefs. *Journal of Applied Social Psychology*, *42*, 62–80.
- Hodges, E. V. E., Boivin, M., Vitaro, F., Bukowski, W. M. (1999). The power of friendship: Protection against an escalating cycle of peer victimization. *Developmental Psychology*, *35*, 94–101. <https://doi.org/10.1037/0012-1649.35.1.94>
- Huitsing, G., Lodder, G. M. A., Oldenburg, B., Schacter, H. L., Salmivalli, C., Juvonen, J., & Veenstra, R. (2019). The healthy context paradox: Victims' adjustment during an anti-bullying intervention. *Journal of Child and Family Studies*, *28*, 2499–2509. <https://doi.org/10.1007/s10826-018-1194-1>.
- Huitsing, G., Snijders, T. A., Van Duijn, M. A., & Veenstra, R. (2014). Victims, bullies, and their defenders: A longitudinal study of the coevolution of positive and negative networks. *Development and Psychopathology*, *26*, 645–659. <https://doi.org/10.1017/S0954579414000297>
- Huitsing, G., Veenstra, R., Sainio, M., & Salmivalli, C. (2012). “It must be me” or “It could be them?”: The impact of the social network position of bullies and victims on victims' adjustment. *Social Networks*, *34*, 379–386. <https://doi.org/10.1016/j.socnet.2010.07.002>.
- Jacobs, R. H., Reinecke, M. A., Gollan, J. K., & Kane, P. (2008). Empirical evidence of cognitive vulnerability for depression among children and adolescents: A cognitive science and developmental perspective. *Clinical Psychology Review*, *28*, 759–782. <https://doi.org/10.1016/j.cpr.2007.10.006>
- Jarvinen, D. W., & Nicholls, J. G. (1996). Adolescents' social goals, beliefs about the causes of social success, and satisfaction in peer relations. *Developmental Psychology*, *32*, 435–441. <https://doi.org/10.1037/0012-1649.32.3.435>
- Ji, L., Zhang, W., & Jones, K. (2016). Chinese children's experience of and attitudes towards bullying and victimization: A cross-cultural comparison between China and England. In P. Smith, K. Kwak, & Y. Toda. (Eds.), *School bullying in different cultures: Eastern and western perspectives* (pp. 170–188). Cambridge: Cambridge University Press
- Kärnä, A., Voeten, M., Little, T. D., Poskiparta, E., Kaljonen, A., & Salmivalli, C. (2011). A large-scale evaluation of the KiVa antibullying program: Grades 4–6. *Child Development*, *82*, 311–330. <https://doi.org/10.1111/j.1467-8624.2010.01557.x>
- Kovacs, M. (1992). *Children's depression inventory (CDI) manual*. Toronto: Multi-Health Systems Inc.

- Ladd, G. W., & Troop-Gordon, W. (2003). The role of chronic peer difficulties in the development of children's psychological adjustment problems. *Child Development, 74*, 1344–1367. <https://doi.org/10.1111/1467-8624.00611>
- LaFontana, K. M., & Cillessen, A. H. (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>
- Lambe, L. J., & Craig, W. M. (2020). Peer defending as a multidimensional behavior: Development and validation of the defending behaviors scale. *Journal of School Psychology, 78*, 38–53. <https://doi.org/10.1016/j.jsp.2019.12.001>
- Laniga-Wijnen, L., Harakeh, Z., Garandeanu, C. F., Dijkstra, J. K., Veenstra, R., & Vollebergh, W. A. (2019). Classroom popularity hierarchy predicts prosocial and aggressive popularity norms across the school year. *Child Development, 90*, 637–653. <https://doi.org/10.1111/cdev.13228>
- Laniga-Wijnen, L., van den Berg, Y. H., Mainhard, T., & Cillessen, A. H. (2021). The role of defending norms in victims' classroom climate perceptions and psychosocial maladjustment in secondary school. *Research on Child and Adolescent Psychopathology, 49*, 169–184. <https://doi.org/10.1007/s10802-020-00738-0>
- Lindenberg, S. (2013). Social rationality, self-regulation, and well-being: The regulatory significance of needs, goals, and the self. In R. Wittek, T. A. B. Snijders, & V. Nee (Eds.), *Handbook of rational choice social research* (pp. 72–112). Stanford, CA: Stanford University Press.
- Lodge, J., & Frydenberg, E. (2005). The role of peer bystanders in school bullying: Positive steps toward promoting peaceful schools. *Theory into Practice, 44*, 329–336. https://doi.org/10.1207/s15430421tip4404_6
- Meisel, S. N., Paul, M. J., & Colder, C. R. (2021). Agency, communion, and pubertal status: Separating between-and within-person associations to examine social goals development. *Journal of Personality*. Advance online publication. <https://doi.org/10.1111/jopy.12638>
- Morrow, M. T., Hubbard, J. A., & Sharp, M. K. (2018). Preadolescents' daily peer victimization and perceived social competence: Moderating effects of classroom aggression. *Journal of Clinical Child & Adolescent Psychology, 48*, 716–727. <https://doi.org/10.1080/15374416.2017.1416618>
- Nishina, A., & Juvonen, J. (2005). Daily reports of witnessing and experiencing peer harassment in middle school. *Child Development, 76*, 435–450. <https://doi.org/10.1111/j.1467-8624.2005.00855.x>
- Nocentini, A., Menesini, E., & Salmivalli, C. (2013). Level and change of bullying behavior during high school: A multilevel growth curve analysis. *Journal of Adolescence, 36*, 495–505. <https://doi.org/10.1016/j.adolescence.2013.02.004>
- 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., Aleva, E. A., & van der Meulen, M. (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>
- Olweus, D. (2006). *Revised Olweus Bully/Victim Questionnaire (OBVQ)* [Database record]. APA PsycTests. <https://doi.org/10.1037/t09634-000>
- Olweus, D. (2013). School bullying: Development and some important challenges. *Annual Review of Clinical Psychology, 9*, 751–780. <https://doi.org/10.1146/annurev-clinpsy-050212-185516>
- Parkhurst, J. T., & Hopmeyer, A. (1998). Sociometric popularity and peer-perceived popularity: Two distinct dimensions of peer status. *The Journal of Early Adolescence, 18*, 125–144. <https://doi.org/10.1177/0272431698018002001>
- Pedersen, S., Vitaro, F., Barker, E. D., & Borge, A. I. (2007). The timing of Middle-Childhood peer rejection and friendship: Linking early behavior to Early-Adolescent adjustment. *Child Development, 78*, 1037–1051. <https://doi.org/10.1111/j.1467-8624.2007.01051.x>

- 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>
- Perren, S., Etekal, I., & Ladd, G. (2013). The impact of peer victimization on later maladjustment: mediating and moderating effects of hostile and self-blaming attributions. *Journal of Child Psychology and Psychiatry, 54*, 46–55. <https://doi.org/10.1111/j.1469-7610.2012.02618.x>
- Pianta, R. C., Steinberg, M. S., & Rollins, K. B. (1995). The first two years of school: Teacher-child relationships and deflections in children's classroom adjustment. *Development and psychopathology, 7*(2), 295–312. <https://doi.org/10.1017/S0954579400006519>
- Poulin, F., & Chan, A. (2010). Friendship stability and change in childhood and adolescence. *Developmental Review, 30*, 257–272. <https://doi.org/10.1016/j.dr.2009.01.001>
- Pouwels, J. L., Lansu, T. A., & Cillessen, A. H. (2018). A developmental perspective on popularity and the group process of bullying. *Aggression and Violent Behavior, 43*, 64–70. <https://doi.org/10.1016/j.avb.2018.10.003>
- Rambaran, J. A., Dijkstra, J. K., & Veenstra, R. (2020). Bullying as a group process in childhood: A longitudinal social network analysis. *Child Development, 91*, 1336–1352. <https://doi.org/10.1111/cdev.13298>
- Reijntjes, A., Vermande, M., Olthof, T., Goossens, F. A., Van De Schoot, R., Aleva, L., & Van Der Meulen, M. (2013). Costs and benefits of bullying in the context of the peer group: A three wave longitudinal analysis. *Journal of Abnormal Child Psychology, 41*, 1217–1229. <https://doi.org/10.1007/s10802-013-9759-3>
- Rigby, K., & Barnes, A. (2002). To tell or not to tell: The victimised student's dilemma. *Youth Studies Australia, 21*, 33–36.
- Romera, E. M., Ortega-Ruiz, R., Runions, K., & Camacho, A. (2021). Bullying perpetration, moral disengagement and need for popularity: examining reciprocal associations in adolescence. *Journal of Youth and Adolescence, 50*, 2021–2035. <https://doi.org/10.1007/s10964-021-01482-4>
- Rudolph, K. D., Troop-Gordon, W., Hessel, E. T., & Schmidt, J. D. (2011). A latent growth curve analysis of early and increasing peer victimization as predictors of mental health across elementary school. *Journal of Clinical Child & Adolescent Psychology, 40*, 111–122. <https://doi.org/10.1080/15374416.2011.533413>
- Saarento, S., Boulton, A. J., & Salmivalli, C. (2015). Reducing bullying and victimization: Student-and classroom-level mechanisms of change. *Journal of Abnormal Child Psychology, 43*, 61–76. <https://doi.org/10.1007/s10802-013-9841-x>
- Saarento, S., Garandeau, C. F., & Salmivalli, C. (2015). Classroom-and school-level contributions to bullying and victimization: A review. *Journal of Community & Applied Social Psychology, 25*, 204–218. <https://doi.org/10.1002/casp.2207>
- Sainio, M., Veenstra, R., Huising, G., & Salmivalli, C. (2011). Victims and their defenders: A dyadic approach. *International Journal of Behavioral Development, 35*, 144–151. <https://doi.org/10.1177/0165025410378068>
- 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. (2014). Participant roles in bullying: How can peer bystanders be utilized in interventions?. *Theory into Practice, 53*, 286–292. <https://doi.org/10.1080/00405841.2014.947222>
- Salmivalli, C., & Peets, K. (2008). Bullies, victims, and bully-victim relationships. In K. Rubin, W. Bukowski & B. Laursen (Eds.), *Handbook of peer interactions, relationships, and groups* (pp. 322–340). New York: Guilford Press.
- 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>
- 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: Official Journal of the International Society for Research on Aggression*, 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., Laninga-Wijnen, L., Malamut, S. T., & Garandeau, C. F. (2021). Bullying prevention in adolescence: solutions and new challenges from the past decade. *Journal of Research on Adolescence*, 31, 1023–1046. <https://doi.org/10.1111/jora.12688>
- Salmivalli, C., Voeten, M., & Poskiparta, E. (2011). Bystanders matter: Associations between reinforcing, defending, and the frequency of bullying behavior in classrooms. *Journal of Clinical Child & Adolescent Psychology*, 40, 668–676. <https://doi.org/10.1080/15374416.2011.597090>
- Schacter, H. L., & Juvonen, J. (2015). The effects of school-level victimization on self-blame: Evidence for contextualized social cognitions. *Developmental Psychology*, 51, 841–847. <https://doi.org/10.1037/dev0000016>
- Schacter, H. L., & Juvonen, J. (2018). You've got a friend (ly school): Can school prosocial norms and friends similarly protect victims from distress?. *Social Development*, 27(3), 636–651. <https://doi.org/10.1111/sode.12281>
- Schmidt, M. E., & Bagwell, C. L. (2007). The protective role of friendship in overtly and relationally victimized boys and girls. *Merrill-Palmer Quarterly*, 53, 439–460. <https://doi.org/10.1353/mpq.2007.0021>
- Schultze-Krumholz, A., Schultze, M., Zagorscak, P., Wölfer, R., & Scheithauer, H. (2016). Feeling cybervictims' pain—The effect of empathy training on cyberbullying. *Aggressive Behavior*, 42, 147–156. <https://doi.org/10.1002/ab.21613>
- Schwartz, D., Lansford, J. E., Dodge, K. A., Pettit, G. S., & Bates, J. E. (2015). Peer victimization during middle childhood as a lead indicator of internalizing problems and diagnostic outcomes in late adolescence. *Journal of Clinical Child & Adolescent Psychology*, 44, 393–404. <https://doi.org/10.1080/15374416.2014.881293>
- Sentse, M., Dijkstra, J. K., Salmivalli, C., & Cillessen, A. H. N. (2013). The dynamics of friendships and victimization in adolescence: A social network perspective. *Aggressive Behavior*, 39, 229–238. <https://doi.org/10.1002/ab.21469>
- Sentse, M., Scholte, R., Salmivalli, C., & Voeten, M. (2007). Person-group dissimilarity in involvement in bullying and its relation with social status. *Journal of Abnormal Child Psychology*, 35, 1009–1019. <https://doi.org/10.1007/s10802-007-9150-3>
- Sentse, M., Scholte, R., Salmivalli, C., & Voeten, M. (2007). Person-group dissimilarity in involvement in bullying and its relation with social status. *Journal of Abnormal Child Psychology*, 35, 1009–1019. <https://doi.org/10.1007/s10802-007-9150-3>
- Sijtsema, J. J., Rambaran, A. J., & Ojanen, T. J. (2013). Overt and relational victimization and adolescent friendships: Selection, de-selection, and social influence. *Social Influence*, 8, 177–195. <https://doi.org/10.1080/15534510.2012.739097>
- 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>
- Smith, P. K., & Robinson, S. (2019). How Does Individualism-Collectivism Relate to Bullying Victimization?. *International Journal of Bullying Prevention*, 1, 3–13. <https://doi.org/10.1007/s42380-018-0005-y>
- Stavrinides, P., Georgiou, S., & Theofanous, V. (2010). Bullying and empathy: a short-term longitudinal investigation. *Educational Psychology*, 30, 793–802. <https://doi.org/10.1080/01443410.2010.506004>
- Sullivan, T. N., Farrell, A. D., & Kliwer, W. (2006). Peer victimization in early adolescence: Association between physical and relational victimization and drug use, aggression, and delinquent behaviors among urban middle school students. *Development and Psychopathology*, 18, 119–137. <https://doi.org/10.1017/S095457940606007X>

- Sumter, S. R., Bokhorst, C. L., Steinberg, L., & Westenberg, P. M. (2009). The developmental pattern of resistance to peer influence in adolescence: Will the teenager ever be able to resist?. *Journal of Adolescence*, *32*, 1009–1021. <https://doi.org/10.1016/j.adolescence.2008.08.010>
- Swearer, S. M., & Espelage, D. L. (2004). Introduction: A social–ecological framework of bullying among youth. In D. L. Espelage, & S. M. Swearer (Eds.), *Bullying in American schools: A social-ecological perspective on prevention and intervention* (pp. 1–12). Mahwah.: Lawrence Erlbaum Associates, Publishers.
- Terry, R. (2000). Recent advances in measurement theory and the use of sociometric techniques. In A. H. N. Cillessen & W. M. Bukowski (Eds.), *Recent advances in the measurement of acceptance and rejection in the peer system* (New Directions for Child Development No. 88, pp. 27–53). San Francisco: Jossey-Bass.
- Thornberg, R., & Wänström, L. (2018). Bullying and its association with altruism toward victims, blaming the victims, and classroom prevalence of bystander behaviors: A multilevel analysis. *Social Psychology of Education*, *21*, 1133–1151. <https://doi.org/10.1007/s11218-018-9457-7>
- Triandis, H. C. (1995). *Individualism & collectivism*. Boulder, CO: Westview press.
- Troop-Gordon, W., & Ladd, G. W. (2005). Trajectories of peer victimization and perceptions of the self and schoolmates: Precursors to internalizing and externalizing problems. *Child Development*, *76*, 1072–1091. <https://doi.org/10.1111/j.1467-8624.2005.00898.x>
- United Nations Educational, Scientific and Cultural Organization. (2019). *Behind the numbers: Ending school violence and bullying*. Retrieved from <https://en.unesco.org/open-access/terms-use-ccbysa-en>
- van der Ploeg, R., Steglich, C., & Veenstra, R. (2016). The support group approach in the Dutch KiVa anti-bullying programme: effects on victimisation, defending and well-being at school. *Educational Research*, *58*, 221–236. <https://doi.org/10.1080/00131881.2016.1184949>
- van Hazebroek, B. C., Olthof, T., & Goossens, F. A. (2017). Predicting aggression in adolescence: The interrelation between (a lack of) empathy and social goals. *Aggressive Behavior*, *43*, 204–214. <https://doi.org/10.1002/ab.21675>
- van Lier, P. A., & Koot, H. M. (2010). Developmental cascades of peer relations and symptoms of externalizing and internalizing problems from kindergarten to fourth-grade elementary school. *Development and Psychopathology*, *22*, 569–582. <https://doi.org/10.1017/S0954579410000283>
- Veenstra, R., Lindenberg, S., Zijlstra, B. J., De Winter, A. F., Verhulst, F. C., & Ormel, J. (2007). The dyadic nature of bullying and victimization: Testing a dual-perspective theory. *Child Development*, *78*, 1843–1854. <https://doi.org/10.1111/j.1467-8624.2007.01102.x>
- Volk, A. A., Camilleri, J. A., Dane, A. V., & Marini, Z. A. (2012). Is adolescent bullying an evolutionary adaptation? *Aggressive Behavior*, *38*, 222–238. <https://doi.org/10.1007/s42380-018-0005-y>
- Volk, A. A., Dane, A. V., & Marini, Z. A. (2014). What is bullying? A theoretical redefinition. *Developmental Review*, *34*, 327–343. <https://doi.org/10.1016/j.dr.2014.09.001>
- Wang, Q. (2004). The emergence of cultural self-constructs: autobiographical memory and self-description in European American and Chinese children. *Developmental Psychology*, *40*, 3–15. <https://doi.org/10.1037/0012-1649.40.1.3>
- Wang, X., Yang, L., Yang, J., Wang, P., & Lei, L. (2017). Trait anger and cyberbullying among young adults: A moderated mediation model of moral disengagement and moral identity. *Computers in Human Behavior*, *73*, 519–526. <https://doi.org/10.1016/j.chb.2017.03.073>
- Wills, T. A. (1981). Downward comparison principles in social psychology. *Psychological Bulletin*, *90*, 245–271. <https://doi.org/10.1037/0033-2909.90.2.245>
- Wright, J. C., Giammarino, M., & Parad, H. W. (1986). Social status in small groups: Individual-group similarity and the social "misfit." *Journal of Personality and Social Psychology*, *50*, 523–536. <https://doi.org/10.1037/0022-3514.50.3.523>

- Wright, M. F., Li, Y., & Shi, J. (2014). Chinese adolescents' social status goals: Associations with behaviors and attributions for relational aggression. *Youth & Society, 46*, 566–588. <https://doi.org/10.1177/0044118X1244880>
- 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. Y. (2020). New approaches to defender and outsider roles in school bullying. *Child Development, 91*(4), e814–e832. <https://doi.org/10.1111/cdev.13312>
- Yun, H. Y., & Juvonen, J. (2020). Navigating the Healthy Context Paradox: Identifying Classroom Characteristics that Improve the Psychological Adjustment of Bullying Victims. *Journal of Youth and Adolescence, 49*, 2203–2213. <https://doi.org/10.1007/s10964-020-01300-3>
- Zhang, W., Cao, Y., Wang, M., Ji, L., Chen, L., & Deater-Deckard, K. (2015). The dopamine D2 receptor polymorphism (DRD2 TaqIA) interacts with maternal parenting in predicting early adolescent depressive symptoms: Evidence of differential susceptibility and age differences. *Journal of Youth and Adolescence, 44*, 1428–1440. <https://doi.org/10.1007/s10964-015-0297-x>
- Zhao, Q., & Li, C. (2022). Victimized adolescents' aggression in cliques with different victimization norms: The healthy context paradox or the peer contagion hypothesis?. *Journal of School Psychology, 92*, 66–79. <https://doi.org/10.1016/j.jsp.2022.03.001>
- Zwaan, M., Dijkstra, J. K., & Veenstra, R. (2013). Status hierarchy, attractiveness hierarchy and sex ratio: Three contextual factors explaining the status–aggression link among adolescents. *International Journal of Behavioral Development, 37*, 211–221. <https://doi.org/10.1177/0165025412471018>



**TURUN
YLIOPISTO**
UNIVERSITY
OF TURKU

ISBN 978-951-29-9108-2 (PRINT)
ISBN 978-951-29-9109-9 (PDF)
ISSN 0082-6987 (Print)
ISSN 2343-3191 (Online)