Determinants of Bystander Behaviour during School Bullying: The Role of Moral Disengagement, Personality, and Friendship

Caroline Doramajian

A Thesis

In

The Department

of

Psychology

Presented in Partial Fulfillment of the Requirements

for the Degree of Doctor of Philosophy (Psychology) at

Concordia University

Montreal, Quebec, Canada

March 2014

CONCORDIA UNIVERSITY
SCHOOL OF GRADUATE STUDIES

This is to certify that the thesis prepared

By: **Caroline Doramajian**

Entitled: **Determinants of Bystander Behaviour during School Bullying: The Role of Moral Disengagement, Personality, and Friendship**

and submitted in partial fulfillment of the requirements for the degree of

DOCTOR OF PHILOSOPHY (Psychology)

complies with the regulations of the University and meets the accepted standards with respect to originality and quality.

Signed by the final examining committee:

_____ Chair
Dr. J. Kelly

_____ External Examiner
Dr. C. Bagwell

_____ External to Program
Dr. H. Rose

_____ Examiner
Dr. R. O'Connor

_____ Examiner
Dr. E. Barker

_____ Thesis Supervisor
Dr. W. Bukowski

Approved by _____
Dr A. Chapman, Graduate Program Director

December 6, 2013

_____
Dean J. Locke, Interim Dean, Faculty of Arts and Science

ABSTRACT

Determinants of Bystander Behaviour during School Bullying:

The Role of Moral Disengagement, Personality, and Friendship

Caroline Doramajian, Ph.D.

Concordia University, 2014

School bullying is a prevalent problem in Canadian schools and is associated with multiple negative outcomes. Students are often present during bullying incidents as natural observers, or bystanders, who may take on various participant roles that either aggravate or improve the plight of victims. The overarching objective of the current three-part study was to identify predictors of bystander behaviour during bullying situations in order to guide interventions aimed at recruiting children to defend their victimized peers. This goal was achieved by designing a three-wave longitudinal study that spanned 4 months and that sampled 130 Canadian early adolescents (68 boys, 62 girls; Mean age= 11.36 years) . Participants completed computerized questionnaires assessing self-reported moral disengagement, self- and peer-reported bullying-related behaviours, friendship using a sociometric nomination procedure, and personality operationalized as BIS-BAS sensitivity using a cognitive task. The data were analyzed using structural equation modeling in MPlus. In the first study, the over-time interplay between moral disengagement and both defending and passive bystanding behaviours was investigated, resulting in an overall pattern that was consistent with Bandura's (1999) socio-cognitive theory of moral agency. Findings also revealed important sex

differences and methodological issues, particularly with regard to the use of peer-report versus self-report tools. Study 2 examined concurrent associations among moral disengagement, personality, and multiple peer-reported bystander behaviours, including defending, passive bystanding, and bully reinforcing. Study 2 provided partial support for the postulates of both Bandura's (1999) theory and Gray and McNaughton's (2000) reinforcement sensitivity theory by highlighting the moderating effect of the BIS and the BAS on the association between moral disengagement and bystander behaviours. Study 3 moved beyond the individual in order to investigate the contextual nature of morality and defending behaviour. As expected, the association between moral disengagement and defending became more positive as a function of the victimization level of one's best friend. Taken as a whole, findings provide support for the role of personality, morality and friendship in influencing bystander behaviours during bullying situations. Several directions for future research are proposed in order to better inform youth-led interventions against school bullying.

Acknowledgments

This work was accomplished as a result of individual ability and perseverance… which would not have been possible without a community of support.

Thank you firstly to Dr. William Bukowski for welcoming me into his lab and for nurturing my autonomy as a researcher. You provided the necessary tools and opportunity to carry out this project, and trusted in my ability to do so. Your presence, guidance, and encouragement at key points of my training have been vital.

Thank you also to my committee members Drs. Roisin O'Connor and Erin Barker for their critical, timely, and thoughtfully-delivered feedback at the early and later stages of this thesis. I would also like to express my gratitude to Dr. Anna-Beth Doyle for having been an excellent role model throughout my training.

I would also like to acknowledge the Vanier Canada Graduate Scholarships program, the Social Sciences and Humanities Research Council, and Concordia University for their generous support. Thanks also to the CRDH and the Clinical Psychology program for excellent training in science and practice.

Thanks to the schools, principals, teachers, parents, and children who participated in this study. They allowed me to test my ideas and share their experience in a way that I hope will benefit others. Thank you to Gordon Rosenhoff, Claire Barnes, Melissa Simard, and Marie-Eve Dubois for their assistance during data collection.

To my lab mates: Jon, Felicia, Lina, Ana, Marie-Eve, Kate, Megan, Joey, and especially Melissa for our special thesis-writing / bonding sessions. You added lots laughter and a few dramatic tears into the mix. It has been fun!

One of the principal hypotheses of this thesis is that moral development occurs within critical interpersonal contexts. The following people have contributed to my own moral growth and have certainly influenced my interest in this important area of study.

Delina Maghakian, Joseph Sarkis, and Christiane Ghakis, your reliable and caring friendship has meant the world to me. Thanks for letting me know how this all sounds to folks on the "outside."

Thank you to my parents for their unconditional love. Mama, without you as a model of a loving working mother, I would never have embarked on this fruitful path nor had the will to stay the course. Baba, thank you for your constant readiness to help and the many cups of Armenian coffee that moved the thesis along. Lucy Mona and Uncle Dan, you have kept an eye on me from a distance for as long as I can remember. Your encouragement during my studies has been tremendously meaningful.

Finally to my EZ boys, Edris and Elias. You have been there throughout this project, growing, flourishing, and claiming your right to Mommy's attention. From the most adorable to the most annoying moments, you have given me the perspective to get through the challenges and to appreciate the successes I have experienced along this journey.

Contribution of Authors

The following thesis is comprised of three manuscripts.

Study 1 (see Chapter 1)

Doramajian, C., & Bukowski, W. M. (2013). A longitudinal study of the associations between moral disengagement and active defending versus passive bystanding during bullying situations. Manuscript submitted for publication.

Study 2 (see Chapter 2)

Doramajian, C., & Bukowski, W. M. (2013).The interactive effect of personality and moral disengagement in predicting bullying bystander behaviours. Manuscript to be submitted for publication shortly.

Study 3 (see Chapter 3)

Doramajian, C., & Bukowski, W. M. (2013). How victimized is my best friend? Friendship motives counteract the inhibitory effect of moral disengagement on defending behaviour. Manuscript submitted for publication.

I developed the overall project described in this dissertation, including the focus of each manuscript in consultation with my research supervisor, Dr. William Bukowski. While I was involved in the recruitment of schools, the initial stages of contact were primarily carried out by Dr. Bukowski and Mr. Gordon Rosenoff; they met with school boards and set up meetings with school principals. Mr. Rosenoff and I recruited children within classrooms and obtained parental consent. Thereafter, I conducted most communications with participating principals, teachers, children, and parents. Beyond the

initial recruitment phase, I was responsible for all facets of the research in this dissertation including its design, data collection, statistical analyses, interpretation of findings, and dissemination of findings (i.e., symposia presentation of parts of the thesis, and manuscript preparation).

I was also responsible for programming the survey used in the data collection procedure in Inquisit 3.0 (Seattle, WA: Millisecond Software). This included the Point Scoring Reaction Time Task for Children-Revised (PSRTT-CR; Colder, Trucco, Lopez, Hawk, Read, Lengua, Weiczorek & Eiden, 2011). Some guidance regarding the task was provided by Matthew Keough, Dr. Roisin O'Connor, and Dr. Craig Colder. Also, parts of the Inquisit code were based on a template provided by Giovanni ten Brink at Radboud University.

My fellow laboratory members helped fine tune the final version of the survey. I was assisted in classrooms by research assistant Claire Barnes, fellow graduate students Melissa Simard, Marie-Eve Dubois, and Megan Wood, and undergraduate student / laboratory volunteer Hayley Morgan. Claire Barnes also helped with transferring data files and with general computer maintenance. I conducted all data management, processing, and screening in preparation for analyses.

Dr. Bukowski provided feedback and consultation throughout all phases of this project. Moreover, my other committee members, Dr.Roisin O'Connor and Dr. Erin Barker offered feedback during a dissertation proposal meeting and also provided instrumental comments and suggestions of a near-final draft of the dissertation.

Table of Contents

List of Figures

List of Tables

Determinants of Bystander Action during School Bullying:

The Role of Moral Disengagement, Personality, and Friendship

School bullying – also referred to as peer victimization – has been linked with multiple negative psychosocial outcomes (Hawker & Boulton, 2000). These acts of physical, verbal, or relational aggression may be especially problematic during early adolescence because they may exacerbate difficulties associated with normative developmental challenges (e.g., puberty, school transitions). With Canada ranking among the worst of 35 countries on a World Health Organization survey comparing reports of bullying and victimization (Craig & Harel, 2004), it is clear that school violence is a critical societal concern. There is a vital need to learn how to curb the prevalence of bullying and its detrimental effects. While adults play an important role in contributing to a safe school environment, their direct influence is hindered by the reality that as children age bullying takes on more covert forms that are difficult for adults to detect (Crick, Nelson Morales, Cullerton-Sen, Casas, &Hickman, 2001). Peers are natural observers of bullying, and harnessing their efforts to intervene is imperative. The ultimate goal of the current project was to provide knowledge that might serve such youth-led interventions.

Salmivalli and colleagues (Salmivalli, Lagerspetz, Björkqvist, Österman, & Kaukiainen, 1996) have offered a framework that is ideally suited for this endeavor. Their participant role approach, which has only recently been pursued in Canada, conceptualizes bullying as a social phenomenon that arises within a peer group context. Bullying is therefore thought to extend beyond the bully-victim dyad to encompass the large number of bystanders who are often present during bullying incidents (Craig &

Pepler, 1997). These peer bystanders may assume different roles that either perpetuate or impede bullying incidents. For instance, bully reinforcers actively reward the aggressor by cheering and laughing, while passive bystanders may unintentionally encourage bullies because their silence may be interpreted as complicity with the acts of aggression. In contrast, bystanders may also take on a defender role by standing up for victims in a way that blocks the bully's aggression. Based on the premise that social roles are malleable (Hastings, Utendale, & Sullivan, 2007), the participant role approach aims to reduce violence by identifying ways of recruiting youth to adopt a victim defender role.

While all aggressive acts have the potential to inflict harm, bullying is a particularly unjust form of aggression given that it involves a power imbalance between aggressor and victim. As such, bullying incidents present bystanders (and certainly bullies as well) with a moral dilemma. While many contextual and personal factors likely influence behaviour in such situations (e.g., Caravita, DiBlasio, & Salmivalli, 2009), understanding factors that inhibit moral action in a morally compelling situation targets the theoretical core of the problem. Bandura's socio-cognitive theory of moral agency (Bandura, 1986, 1999, 2002) proposes that aggression – or lack of prosocial behaviour– in bullying situations may be due to mechanisms of *moral disengagement*. Moral disengagement is a cognitive strategy used to legitimize aggression when one has violated or anticipates violating one's own moral code. It has been argued that moral disengagement suppresses moral emotions (e.g., empathy, guilt), which in turn loosens moral self-censures thus allowing for guilt-free aggression – or in the case of bystanders, guilt-free passivity in the face of another's suffering. Moreover, the theory proposes that disengagement strategies develop gradually through a continual interplay between "moral

thought, affect, action, and its social reception" (Bandura, 2002). In other words, Bandura proposes that a bidirectional relationship exists between moral disengagement and behaviour that unfolds over time through processes of social learning. While recent research efforts have produced ample evidence to support an association between moral disengagement and bullying and other forms of aggression (e.g., Menesini, Sanchez, Fonzi, Ortega, Costable, & Feudo, 2003; Hymel, Rocke-Henderson, & Bonanno, 2005) research into the role of moral disengagement in predicting bystander behaviour is in its infancy.

The objective of the current project was to contribute to this new and important area of inquiry by carrying out three studies. This task was accomplished using an intensive three-wave longitudinal design that sampled a diverse group of Canadian early adolescents over a four month-period and that benefitted from a multi-method computerized assessment procedure. The study presented in Chapter 1was an investigation of the over-time interplay between moral disengagement and both defender and passive bystander behaviours. This study aimed to improve upon the concurrent designs that have been predominantly employed in previous research, while also highlighting several methodological issues involving the measurement of moral disengagement and bystander behaviour.

The goal of the second and third studies was to examine moderators of the association between moral disengagement and bystander behaviours. This line of investigation acknowledges the multi-dimensional and complex nature of human behaviour (Bronfenbrenner, 1979), which is certainly supported by the less than perfect association between moral disengagement and bullying-related behaviours that has been

found to date (e.g., Menesini et al., 2003). Chapter 2 describes a study that explored the interactive effect of morality and personality in predicting several bystander behaviours (i.e., defending, passive bystanding, and bully reinforcing). By joining the basic premises of Bandura's socio-cognitive theory of moral agency (Bandura, 1999) with Gray and McNaughton's (2000) reinforcement sensitivity theory, bystander behaviours were conceptualized according to their degree of prosociality versus aggression as well as their degree of activity versus passivity, and thought to vary as a function of both personality and moral cognitions. The aim of Study 2 was to shed light on the complexity of individual level factors involved in bystanders' motivation to help or to harm victims.

The study presented in Chapter 3 probed into the contextual nature of morality and moral agency. Specifically, it enquired into whether the level of victimization of one's best friend would moderate the association between moral disengagement and defending behaviour. Children's tendency to be more or less partial toward friends was expected to correspond to differential levels of defending. Hypotheses were based on the premise that children would have a separate moral code for friends and non-friends (Bukowski & Sippola, 1996), and that this moral partiality would be strongest in those who were most morally disengaged. The main purpose of Study 3 was to elaborate on the role of social context, and friendship in particular, in the development of moral action.

Chapter 1: A Longitudinal Study of the Associations Between Moral Disengagement and Active Defending Versus Passive Bystanding During Bullying Situations

Researchers have long recognized the critical role that student bystanders play in either reducing or in amplifying bullying behaviour in schools (Lagerspetz, Björkqvist, Berts, & King, 1982; Salmivalli et al., 1996). Beyond bullies and victims, bystanders who witness bullying episodes participate in the overall process in more or less positive ways depending on their degree of activity versus passivity and prosociality versus aggression (Salmivalli, Voeten, & Poskiparta, 2011; Sutton & Smith, 1999). Indeed, the presence of peer bystanders has been shown to be related to the persistence of bullying episodes in that those bystanders who passively spectate as well as those who take on more active bully reinforcing roles (e.g., cheering and laughing) may provide rewards that maintain the bully's aggressive behaviour (Salmivalli et al., 1996; O'Connell, Pepler, & Craig, 1999). Unfortunately, despite the large proportion of children who are present during instances of bullying, few act as defenders of victimized peers (e.g., Craig & Pepler, 1997; Salmivalli et al., 1996). As such, identifying factors that may motivate passive bystanders to act in defense of victims is a very worthwhile direction that researchers have recently begun to follow.

Moral Disengagement

Bystanders of school bullying are faced with a fundamentally unjust situation given that these incidents involve a power imbalance between perpetrator and victim. Bandura's socio-cognitive theory of moral agency (Bandura, 1986, 1999, 2002) offers an explanation for why moral agency may be suppressed in such situations. The theory postulates that mismatches between moral principles (e.g., "the right thing to do is to help

the victim") and actual conduct (e.g., remaining passive) are facilitated by a self-regulatory cognitive strategy called *moral disengagement.* Moral disengagement is the tendency to legitimize harmful behaviour in a way that reduces one's moral agency or accountability. Disengagement of moral self-sanctions from moral transgressions is *selective* in that this strategy is only thought to be necessary in situations when one anticipates committing acts that are against one's moral code, or when one has already done so. As such, moral disengagement may be considered a coping mechanism to deal with cognitive dissonance between thought and behaviour (Festinger, 1957).

According to the theory, moral disengagers are less likely to incur feelings of guilt and self-condemnation if they deviate from their code. The theory also proposes a gradual interplay over time between moral disengagement and moral action such that moral disengagement becomes a habitual strategy that allows for progressively worse moral transgressions. In other words, the individual may become desensitized to immoral action and its effects over time and it becomes easier, or less guilt-provoking to commit further or more severe transgressions. The theory describes eight psychosocial mechanisms of moral disengagement that are thought to inhibit moral self-censure and thus motivate immoral behaviour (Bandura, 1999). One group of mechanisms involves the cognitive restructuring of one's beliefs such that an immoral act is not perceived to be all that reprehensible. This feat is achieved through processes such as moral justification (e.g., the belief that being bullied is just a normal part of growing up), advantageous comparison (e.g., believing that insulting someone is better than hitting them), and euphemistic labeling (e.g., believing that hitting an annoying classmate teaches them a 'lesson'). Moral disengagement is also thought to be facilitated by misrepresenting the

detrimental effects that result from moral transgressions. Here, individuals minimize, ignore, or misconstrue the painful consequences that victims may experience (e.g., believing that teasing someone does not really hurt them). A third group of mechanisms obscures one's sense of moral agency through displacement of responsibility or diffusion of responsibility (e.g., believing that one should not help a victim because others are not helping him or her either). Finally, harmful acts may be rationalized as morally acceptable by dehumanizing victims and blaming them for having somehow provoked their own mistreatment (e.g., the belief that children who get mistreated usually do something to deserve it).

Moral Disengagement and Bystander Behaviour

Bandura's framework has enhanced our understanding of aggressive behaviour in youth (e.g., Bandura, Barbaranelli, Caprara, & Pastorelli, 1996; Gini, Pozzoli, & Hymel, 2013; Paciello, Fida, Tramontano, Lupinetti, & Caprara, 2008), and has also been found to be a reliable construct in understanding bullying behaviour (e.g., Menesini et al., 2003; Hymel et al., 2005). However, a significant aspect of his theory that has remained largely neglected in the literature regards the power that moral *engagement* may have in thwarting others' efforts to inflict harm. In fact, children who are morally engaged have been found to be more prosocial (Bandura et al., 1996). Along these lines, a handful of studies have highlighted ways in which moral engagement can bring out "the best" in children during bullying situations, as exemplified through greater defending. For instance, Gini, Pozzoli, and Hauser (2011) investigated moral competence and moral disengagement (reversed in order to be used as a measure of moral compassion) in peer-reported bullies and defenders, finding that bullies were comparable to defenders in terms

of knowing "right" from "wrong," but that they showed greater deficits in moral compassion.

Patterns involving passive bystanders have not been as clear. The theoretical expectation is that moral disengagement would be higher in passive bystanders than in defenders. Bandura and colleagues (1996) argue that if moral principles are disengaged from harmful conduct, not only does motivation for aggressive behaviour increase, but so may the tendency to remain a passive witness who is not troubled with feelings of guilt for not helping. In other words, moral disengagement is thought to diminish the perceived "inhumanity" of aggressive behaviour (Hymel et al., 2005). Importantly, moral disengagement may add to inhibitory processes that are inherent to bullying bystander situations given the frequent presence of multiple witnesses (i.e., the bystander effect: Latané & Nida, 1981, Darley & Latané, 1968; Staub, 1970). In other words, prosociality in bullying bystanders may be suppressed due to social psychological processes related to the mere presence of multiple witnesses, but also due to their tendency to rationalize their own anticipated lack of prosociality. For example, a child witnessing a peer being harassed while in the presence of a crowd of children may stand by and simply watch because they interpret the inaction of others as a sign that there is no real need to intervene (i.e., 'audience inhibition' as described by Latané & Nida, 1981). If the bystander also thinks that the victim is annoying and not really his or her friend (i.e., 'dehumanzing' as described by Bandura, 1999), he or she may be even less inclined to help or investigate whether or not help is needed. In turn, this greater bystander passivity may predict increased moral disengagement as expected by the bidirectional association between moral thought and action outlined in Bandura's (1999) theory.

While defenders are expected to remain morally engaged because their behaviour matches moral standards, passive bystanders may need to morally disengage in order to distance themselves emotionally from the fact that they remain passive in the face of another person's distress. This line of thinking speaks to very basic processes of emotion contagion in that self-focused personal distress may arise from (over)empathizing with another's suffering and ultimately inhibiting prosocial tendencies. In contrast, when not flooded by emotions, sympathetic concern may arise and motivate prosocial behaviours, observed even in non-human primates (e.g., breaking up a fight or consoling a fellow ape who has been aggressed by a more powerful group member; de Waal, 2008).

Similarly, studies of bystander responses to larger scale violence have suggested that internal conflict can arise when one remains a morally engaged, empathetic, yet passive witness to a victim in distress (Staub, 2000). Aside from this guilt-based moral disengagement, fear may also morally disengage bullying bystanders. For instance, bystanders who do end up intervening may have had to overcome the fear of embarrassing themselves in the presence of a peer audience (e.g., fear of social blunders; Hogg & Vaughan, 2008), or the fear of becoming the next target or losing social status by opposing a potentially popular bully (e.g., Mayeux & Cillessen, 2008). As such, moral disengagement provides an arguably adaptive coping strategy to minimize personal distress, be it guilt- or fear-based, in those who "mind their own business" when witnessing a peer being harassed. Importantly, this inhibition of moral concern may suppress altruistic motives (Bandura, 1999). As bystanders' moral disengagement feeds into and is fed by behavioural distancing, greater tolerance for witnessing bullying may

develop through the effects of graduated exposure or systematic desensitization (Wolpe, 1961).

Despite these theoretical arguments, the scant literature examining moral disengagement in passive bystanders has not been conclusive. Much of the research in this area has used peer nominations to establish participant roles in bullying, an approach which categorizes the more passive bystanders into the "outsider" role (Salmivalli et al., 1996). Menesini and colleagues (2003) found that in a sample of Italian and Spanish youth, peer-reported passive bystanders who were low on defending/intervention, were less morally disengaged than bullies indicating that moral disengagement may be more important for those who are aggressive toward peers than for those who remained passive in the presence of such aggression. While informative, moral disengagement strategies among those who remain passive versus those who intervene to help were not compared. Gini (2006) provided a more direct comparison between defenders and passive bystanders, finding similarities between these groups of children when identified using peer-report measures: 1) the higher children's score as a passive bystander, the higher their score as a defender, and 2) higher scores on both the passive bystander and defender scales were related to lower levels of moral disengagement. Similarities between peer-reported defenders and passive bystanders have also been found in terms of empathic responsiveness, although it appears that they differ on other measures such as social self-efficacy (Gini, Albiero, Benelli, and Altoè, 2008). Based on the findings reviewed and contrary to the expectations of the socio-cognitive theory of moral agency (Bandura, 1999), their seems to be greater similarity than differences between passive bystanders and defenders in terms of moral disengagement strategies.

Self- versus Peer-Report

The parallels found between defenders and passive bystanders using peer reports are challenged by findings using self-reports. Pozzoli and Gini (2010) found a negative, rather than a positive association between active defending and passive bystanding using self-report data indicating that children who perceive themselves as passive bystanders are less likely to perceive themselves as defenders. Also, higher levels of passive bystanding were related to a lower personal sense of responsibility to intervene, a construct that is analogous to moral agency. Obermann (2011) also used self-report measures in a study of moral disengagement among different types of self-reported bystanders in a large Danish sample of early adolescents, finding that those who endorsed a sense of guilt about remaining passive also reported lower levels of moral disengagement than those who seemed to be unconcerned. Interestingly, these "guilty bystanders" showed similarly low levels of moral disengagement as defenders. These findings are consistent with theory in that bystanders who distance themselves morally from aggressive acts are expected to be protected from feelings of self-censure (Bandura, 1999). The mixed findings to date regarding passive bystander behaviours using different informants may involve methodological issues similar to those identified for other bullying behaviours. For example, Juvonen, Nishina, and Graham (2001) highlight the low to moderate association between peer-reported and self-reported victimization across multiple studies, and emphasize that self-report and peer perception data are complementary given that they represent distinct constructs. Even though no clear guidelines are offered in terms of how best to integrate the data provided, multiple frames

of reference should be consulted given that these may provide important, albeit distinct perspectives on behaviour.

Longitudinal Associations

While the previously cited studies have been instrumental in establishing a link between moral disengagement and bystander behaviour, they are limited by the concurrent or cross-sectional sampling of behaviour, making it impossible to draw conclusions about directionality. Longitudinal investigations in this area of research are scarce and have to date focused principally on associations between moral disengagement and aggressive behaviour. For example, Paciello and colleagues (2008) provided convincing support for the impact of moral disengagement on moral conduct. These investigators tracked adolescents from ages 14 to 20, identifying several developmental trajectories of moral disengagement. A "chronic group" of children who remained moderate to highly morally disengaged were most likely to display frequent aggressive and violent behaviours in late adolescence as compared to the children developing along the following three trajectories: a non-disengaged group that maintained low levels of moral disengagement throughout their youth, a normative group with initially moderate levels that later declined, and a later desister group with levels that increased up to 16 years of age and then sharply decreased. Moral disengagement has also been found to mediate the association between childhood risk factors (e.g., early rejecting parenting, neighborhood impoverishment) and antisocial behaviour later during adolescence (Hyde, Shaw, & Moilanen, 2010). In contrast, one study examining whether moral disengagement predicted defending behaviour later in the school year among a large sample of Australian youth found that empathy and collective efficacy, rather than moral

cognitions explained variance in subsequent defending (Barchia & Bussey, 2011b). In these longitudinal studies, moral disengagement was modeled as a predictor of behaviour as opposed to an outcome. While the direction of effect from cognition to behaviour may be the case for initial behaviour onset, the argument for such a unidirectional effect is less convincing in understanding the maintenance of behaviour. Indeed, a gradual and reciprocal interplay between moral disengagement and moral action is a central tenet of the theory of moral agency (Bandura, 1999), but one that has not been adequately tested to date.

Objectives and Hypotheses

This is a budding area of research that is in need of greater clarity regarding the associations between bystander's moral cognitions and defending versus passive bystander behaviours. The current study attempted to meet this need by employing an intensive three-wave longitudinal design that assessed a diverse sample of Canadian older school-aged children over a four month period. The central goal was to address the following two questions: (1) How do the associations between bystander's moral disengagement and defending versus passive bystander behaviour change over time, and (2) how do these patterns vary depending on the informant (self versus peers)?

Based on the previous review suggesting that moral disengagement is an unnecessary cognitive strategy for those who are morally agentive (e.g., defenders), a negative relationship was expected between moral disengagement and defending such that defending would be most likely in those who are most engaged and least likely in those who are most disengaged, regardless of the informant. In contrast, the theoretical expectation of a positive association between moral disengagement and passive

bystanding was only applied to self-reported bystanding; the opposite pattern was expected using peer-report. Hypotheses regarding the over-time directionality of these associations are difficult to formulate given the lack of research in this area. Based on the postulates of the socio-cognitive theory of moral agency, reciprocal effects were expected between moral cognitions and behaviours (Bandura, 1999). It was expected that a three-wave study would allow for the detection of such an interplay between moral disengagement and behaviour over time.

Method

Participants

The sample consisted of 130 boys (n = 68) and girls (n = 62) attending fourth, fifth and sixth grade in two public schools in a Canadian city. The average age of participants was 11.36 years (SD = .69; range: 9.47 – 13.61 years; no mean differences in age between boys and girls). The majority of participants (93%) and their parents (>70%) were born in Canada. Most children reported speaking English at home (66%), while the remainder spoke French (19%) or other languages (13%). Participants stated their ethnicity or cultural group in open ended fashion, resulting in a diverse response set: Canadian (37%), Christian (18%), Canadian and other (9%), French Canadian (7%), European (7%), Chinese (5%), Muslim (5%), Arab (5%), Caribbean (4%), Indian (2%), and Latino (2%). Parents reported on socioeconomic status (SES) using the MacArthur Scale of subjective SES (e.g., Adler, Epel, Castellazzo, & Ickovics, 2000), a "staircase" rating system with 10 steps representing lower to higher levels of SES. The median SES reported by parents was 6 (SD = 1.44; range 2 – 8). Household incomes ranged widely

from less than $15,000 to more than $100,000 per year and parents' education ranged from less than a high school diploma to a doctorate degree.

Procedure

The study's procedure involved obtaining approval from the local school boards, school principals, and governing boards. Students were recruited by sending out permission letters to their parents (see Appendix A). Students' assent was also obtained (Appendix B). Prior to testing, participants were reminded that their responses would be kept confidential and that they could withdraw from the study at any time. Also, this study was approved by Concordia University's Human Research Ethics Committee.

Prior to data collection, participants were given a definition of bullying specifying that it involves acts that are intended to harm, that are repeated over time, that present a power imbalance, and that may take on different forms of aggression (e.g., verbal, relational, physical). Children were assessed at three times across a four-month period from late January to early June 2012 with 7-8 weeks between each wave. Twelve children (9% of original sample) were not present during the final data collection due to various reasons (e.g., illness, out of town). There were no differences in gender or age between the group of absent children and those who were present during the third time point. Missing data were handled using multiple imputation (as explained in the Results section). No data was missing when a child was present (i.e., all survey items were completed when a child was present). Self-report and peer-report measures were administered within classrooms using netbook computers with questionnaires programmed using Inquisit 3.0 (Seattle, WA: Millisecond Software). Computerized assessments have been found to present a number of methodological advantages over

traditional paper and pencil methods (Van den Berg & Cillessen, 2013). Participants received school supplies and a t-shirt as remuneration.

Measures

Moral Disengagement. Moral disengagement was assessed using an abridged version of the 32-item Mechanisms of Moral Disengagement Scale (Bandura et al., 1996). Participants were asked to rate their degree of agreement with 12 statements on a five-point Likert scale (1 = strongly disagree to 5 = strongly agree) representing four broad dimensions: restructuring immoral behaviour (3 items: "It is okay to insult a classmate because hitting him or her would be worse," "Bullying is just a normal part of being a kid," "To hit an annoying classmate is just teaching them 'a lesson'"), dehumanizing the victim (3 items: e.g., "Kids who get mistreated usually do something to deserve it," "It's okay to treat somebody badly if they hurt other kids," "It's okay to leave someone out if they are annoying"), obscuring personal responsibility (3 items: "Kids cannot be blamed for misbehaving if their friends pressured them to do it," "A kid who suggests breaking rules should not be blamed if other kids go ahead and do it," "It's okay to not help someone being bullied if others aren't helping"), and misrepresenting injurious consequences (3 items: "Teasing someone does not really hurt them," "It is okay to tell small lies because they don't really do any harm," "Saying bad things about others doesn't hurt anyone"). These 12 items were randomly assigned to one of three parcels (Little, Cunningham, Shahar, & Widaman, 2002) that would be used as the observed measures in latent variable models. Confirmatory analyses showed that these parcels were manifestations of a single factor (T1 omega = .82; T2 omega = .85; T3 omega = .88). The present study used omega to test reliability as an alternative to

Chronbach's alpha given the limitations of alpha that have been highlighted by many statisticians (Schmitt, 1996; Sijtsma, 2009), and the recent view that omega provides a more accurate estimate of reliability (Revelle & Zinbarg, 2009).

Self-reported defending and passive bystanding. Self-reported defending and passive bystanding were based on the items used by Pozzoli and Gini (2010). Participants rated items on a five-point Likert scale (from 1 = never true to 5 = always true) for how often in the past month they had engaged in the stated behaviour. Self-reported defending was assessed using 3 items: "I defend the classmates who are hit or pushed by others," "If someone insults or threatens a classmate, I try to stop him or her," and "I try to help or comfort classmates who are left out by the group." Self-reported passive bystanding was assessed using 3 items: "When a classmate is hit or pushed in a mean way, I stand back and I mind my own business," "If a classmate is called nasty names I do nothing", and "If I know that someone is being excluded from the group, I act as if nothing happened." Confirmatory analyses showed that each of these two sets of measures fit a single factor model (for defending: T1 omega = .81; T2 omega = .83; T3 omega = .84; for passive bystanding: T1 omega = .78; T2 omega = .75; T3 omega =.72).

Peer reported defending and passive bystanding. These constructs were also measured with peer assessments (Bukowski, Cillessen, & Velasquez, 2011). In our procedure, participants were given a list of the names of every participating classmate accompanied by a statement that described a form of functioning within the peer group. The participants were asked to indicate which of their peers fit each description. A participant could choose as many peers as he/she wished for each item. Self-choices were not allowed. The number of nominations received by a participant from same-sex peers

for a particular item was used as the participant's score on this item. Items based on the Participant Role Questionnaire (Salmivalli, et al., 1996) were used to measure aspects of defending and passive bystander status. Defending was measured using 3 items (T1 omega = .80; T2 omega = .77; T3 omega =.79): "Someone who comforts a student who has been bullied," "Someone who tells others to stop bullying," and "Someone who tries to make the others stop bullying." Passive bystanding was measured using 2 items (T1 omega = .79; T2 omega = .62; T3 omega =.77): "Someone who stays out of bullying situations," "Someone who doesn't take sides with anyone during bullying situations." In order to reduce the bias in scores due to variations in class size, the number of nominations received by each child was adjusted with a procedure as described by Velasquez, Bukowski, and Saldarriaga (2013). These authors propose a regression-based procedure that adjusts nomination-based scores so that a child's score is less impacted by whether there are more or less nominators in his or her classroom compared to another child's classroom.

Results

Preliminary Analyses

Multiple imputation. One child was not present during the second data collection (< 1% of original sample) and twelve children (9% of original sample) were not present during the final data collection due to various reasons (e.g., illness, out of town). There were no missing data on individual questionnaire items when children were present for data collection. Missing data was handled using multiple imputation following the method outlined by Little, Howard, McConnell, and Stump (2011). Principal components analysis was used to compute five factor scores, which represented 44% of the variance

in the original dataset. These factor scores, along with sex, age, and classroom were used as anchor variables to impute missing scores using Amelia II software (Honaker, King, & Blackwell, 2012). Twenty separate imputed data sets were created, which were then used in the final analyses conducted in MPlus Version 6.0 (Muthén & Muthén, 2010; TYPE = IMPUTATION).

Descriptive statistics and mean differences. Means and standard deviations are given in Table 1.1. Several analyses were carried out in IBM SPSS version 19 in order to determine whether there were any mean-level differences in the study variables as a function of sex, age, and time. For simplicity, observed variables were used in these preliminary analyses.

Given that age is a continuous variable, multiple regression analyses were conducted by entering age and sex on a first step, and then their interaction on a second step. At T2, older children received fewer peer nominations of defending (β = -.21; p < .05) and passive bystanding (β = -.33; p < .05). Significant Sex X Age effects were found at T1 for these measures, with older girls receiving the most nominations (β = .18 for peer-reported defending and β = .30 for peer-reported passive bystanding; p < .05).

Next, a series of Sex X Time repeated measures ANOVAs were conducted in order to identify any changes within subjects over time (T1 versus T2 versus T3) and between subjects (boys versus girls); results are given in Table 1.1. Mauchly's Test of Sphericity was conducted and the sphericity assumption was not violated in any of the analyses. Follow-up analyses were performed using the Bonferroni correction in order to prevent inflation of type I error rates. An alpha level of .05 was used in all analyses and follow-up analyses. Several patterns emerged as quantified in Table 1.1. In general, peer-

reported defending and passive bystanding followed a similar pattern over time and between sex: girls received more nominations than boys on both measures, and scores decreased from T1 to T2 then remained steady into T3 for the full sample.

Self and peer-reported defending followed a similar pattern over time for boys, mainly characterized by a steady decrease. Girls self-reported an increase in defending at T2, then a sharp decrease into T3, while peer-reports indicated that girls decreased in defending from T1 to T2 then increased into T3 (as indicated by a significant Time X Sex interaction). Self-reported passive bystanding was highly stable, with analyses revealing no main or interactive effects of time and sex. Boys reported higher levels of moral disengagement than did girls, and no change over time was observed.

Bivariate correlations between study variables are given in Table 1.2 for boys and girls separately. The following general patterns were observed. Self-reported defending was negatively related to self-reported passive bystanding, indicating that the higher one is on defending the lower the likelihood of passive bystanding (similar strength for boys and girls). In general, peer-reported defending was positively related to peer-reported passive bystanding, indicating that the more one has a reputation of being a defender, the greater the likelihood of also being perceived as a passive bystander. Self-reported bystanding was not related to peer-reported passive bystanding, emphasizing the importance of having retained both sources of information. There was a small overlap between self-reported defending and peer-reported defending among boys and girls, and in the positive direction, suggesting that self and peer views are aligned with regard to defending.

With regard to associations between moral disengagement and behaviour, as expected, there was a consistently negative association between moral disengagement and defending, although strongest in girls' self-reports. In contrast, moral disengagement was positively associated with self-reported passive bystanding, with similar strength in boys and girls. Finally, findings were mixed for peer-reported passive bystanding, demonstrating little overlap with moral disengagement; however, associations tended to be positive for girls (in line with self-report and theory) and negative for boys.

Final Analyses: The Over-time Interplay Between Moral Disengagement and Bystander Behaviour

A common set of sequenced procedures were used to evaluate four three-wave two variable longitudinal models in order to assess the reciprocal effects between peer experience and moral disengagement. Each of these four latent variable models used a different measure of experience: self-reported passive bystanding, peer-reported passive bystanding, self-reported defending, and peer-assessed defending. With each of the four latent variable models, MPlus (Muthén & Muthén, 2010) was used to assess an initial stability model which included two types of paths: auotoregressive paths were included to represent the association between each variable and its corresponding measure at the next time, and covariances were used to represent the within time association between the two variables. Four autoregressive paths were included (i.e., T1 to T2 and T2 to T3 for each of the two variables) in each model, and three covariances (i.e., one at each of the three times). Following the evaluation of the stability model, a second model was tested that included cross lagged paths between the measures of experience and the measures of

moral disengagement. Finally, a multigroups procedure was used to assess differences in the findings for boys and girls. Depending on the comparative goodness of fit of these models, as established using the Chi squared difference test, associations were reported for either the full sample or for boys and girls separately. Standardized coefficients are given in Figures 1.1 to 1.4 for the significant paths in the final models ($p < .05$, two-tailed test unless otherwise specified; one-tailed tests considered acceptable given that hypotheses regarding direction of association were specified a priori).

Self-reported passive bystanding and moral disengagement. Although the initial stability model showed an adequate level of fit ($\chi^2_{(111)} = 139.26$, $p < .05$, CFI = .97, RMSEA < .05) the second model that included the cross lagged paths was observed to be significantly better ($\chi^2_{(109)} = 122.26$, $p > .05$, CFI = .99, RMSEA < .05, $\Delta\chi^2(2) = 17.00$, $p < .05$).

The model was then tested separately for boys and for girls in an unconstrained multiple group model (unconstrained because no hypotheses were made about how the associations might differ over time among boys versus among girls). This multiple group model was also a good fit to the data ($\chi^2_{(242)} = 257.08$, $p > .05$, CFI = .98, RMSEA < .05) and did not differ significantly from the full sample model ($\Delta\chi^2_{(133)} = 134.83$, $p > .05$). As a final comparison, the multiple group model was analyzed by constraining all paths to be equal for boys and for girls. The fit of this fully-constrained model was just as good as that of the full sample model and that of the unconstrained model, suggesting that patterns of association are similar for boys and girls ($\chi^2_{(270)} = 301.94$, $p > .05$, CFI = .97, RMSEA < .05; $\Delta\chi^2_{(161)} = 179.98$, $p > .05$). As illustrated in Figure 1.1, moral disengagement was highly stable over time. Passive bystanding became more stable from

T2 to T3 than it had been from T1 to T2, as determined by comparing the fit of the unconstrained model to one that fixed these two paths to be equal to one another ($\chi^2_{(110)}$ = 130.93, $p > .05$, CFI = .98, RMSEA < .05; $\Delta\chi^2_{(1)} = 8.67$, $p < .05$). As expected, all significant associations between moral disengagement and self-reported passive bystanding were in the positive direction indicating that a greater tendency to morally disengage is related to the subjective experience of remaining passive during bullying situations. This was evident in the positive concurrent association between moral disengagement and passive bystanding at T1 and at T3, which is in line with the bivariate correlations reported in Table 1.2. Beyond the significant autoregressive paths and covariances, several significant cross lagged paths were observed between moral disengagement and passive bystanding. Specifically, T1 moral disengagement was related to higher levels of passive bystanding at T2, which in turn predicted higher moral disengagement at T3.

Peer-reported passive bystanding and moral disengagement. The peer-assessed measures of passive bystanding were used next as the measure of experience. Although the initial stability model again showed a good fit to the data ($\chi^2_{(75)} = 78.79$, $p > .05$, CFI = .99, RMSEA < .05) the second model was observed to be significantly better ($\chi^2_{(71)} = 66.71$, $p > .05$, CFI = 1.00, RMSEA < .05, $\Delta\chi^2_{(4)} = 12.08$, $p < .05$) When the model was then tested separately for boys and for girls, the unconstrained multiple group model also showed a good fit to the data ($\chi^2_{(164)} = 150.23$, $p > .05$, CFI = 1.00, RMSEA < .05) and was not significantly different from the full sample model ($\Delta\chi^2_{(92)} = 86.23$, $p > .05$). However, a multiple group model that constrained boys and girls to be equal on all paths resulted in a poorer fit to the data than the unconstrained model ($\chi^2_{(172)} = 177.10$, p

< .05, CFI = .99, RMSEA < .05; $\Delta\chi^2_{(8)}$ =26.87, $p < .05$), suggesting sex differences in patterns of associations.

In order to identify the paths on which sex differences occurred, a series of models that individually constrained each path in the model to be equal for boys and for girls was compared to the unconstrained model using the Chi squared difference test. There were sex differences on the following paths (Chi squared difference test results are given comparing the fit of a model that constrained the path to be equal for boys and for girls to the fit of the unconstrained multigroups model): T2 passive bystanding on T1 passive bystanding ($\Delta\chi^2_{(1)} = 9.87$, $p < .05$); T2 passive bystanding on T1 moral disengagement ($\Delta\chi^2_{(1)} = 3.97$, $p < .05$); T3 passive bystanding on T2 passive bystanding ($\Delta\chi^2_{(1)} = 4.21$, $p < .05$); T2 moral disengagement on T1 passive bystanding ($\Delta\chi^2_{(1)} = 3.30$, $p < .10$); T3 moral disengagement on T2 moral disengagement ($\Delta\chi^2_{(1)} = 7.75$, $p < .05$); T3 moral disengagement on T2 passive bystanding ($\Delta\chi^2_{(1)} = 3.90$, $p < .05$); T1 moral disengagement with T1 passive bystanding ($\Delta\chi^2_{(1)} = 4.29$, $p < .05$). Standardized coefficients for all significant paths are displayed in Figure 1.2 and paths that differed for boys and for girls are noted.

Stability of moral cognitions and behaviour over time was also compared for boys and for girls. This was done by constraining the T1 to T2 paths to be equal to the T2 to T3 paths for each measure, separately for boys and for girls. The fit of these models were then compared to the fit of the unconstrained multiple groups model using the Chi squared difference test. These comparisons revealed that girls' reputation as passive bystanders became more stable over time (if paths constrained, $\chi^2_{(165)} = 156.15$, $p > .05$, CFI = 1.00, RMSEA < .05; $\Delta\chi^2_{(1)}$ =5.92, $p < .05$, therefore worse fit than that of the

unconstrained model). Boys' reputation tended to become less stable over time (if paths constrained, $\chi^2_{(165)} = 153.04$, $p > .05$, CFI = 1.00, RMSEA < .05; $\Delta\chi^2_{(1)} = 2.81$, $p < .10$, therefore trend-level worse fit than that of the unconstrained model). Next, girls' moral cognitions tended to become more stable (if paths constrained, $\chi^2_{(165)} = 153.06$, $p > .05$, CFI = 1.00, RMSEA < .05; $\Delta\chi^2_{(1)} = 2.83$, $p < .10$, therefore trend-level worse fit than that of the unconstrained model), while boys' moral cognitions tended to become less stable (if paths constrained, $\chi^2_{(165)} = 153.02$, $p > .05$, CFI = 1.00, RMSEA < .05; $\Delta\chi^2_{(1)} = 2.79$, $p < .10$, therefore trend worse than unconstrained model). Also for boys, passive bystanding and moral disengagement at T2 were equally strong in their influence on Time 3 moral disengagement. Importantly, the general direction of association between moral disengagement and peer-reported passive bystanding was negative for boys (i.e., concurrent association at T1, and predictive from T2 passive bystanding to T3 moral disengagement) and positive for girls (i.e., bidirectional associations between T1 and T2 moral disengagement and passive bystanding). That is, moral disengagement tended to be related to less passivity in boys versus more passivity in girls according to peer report.

Self-reported defending and moral disengagement. In the next analysis, the self-report measure of defending behaviour was used as the measure of experience. Again, the initial stability model was observed to have a moderate fit ($\chi^2_{(110)} = 157.95$, $p < .05$, CFI = .96, RMSEA > .05). Adding the cross lagged paths to the model improved the model fit significantly ($\chi^2_{(106)} = 125.79$, $p > .05$, CFI = .99, RMSEA < .05, $\Delta\chi^2$ (4) = 32.16, $p < .05$). When the model was then tested for boys and girls separately, the unconstrained multiple group model also showed a good fit to the data ($\chi^2_{(236)} = 243.64$, $p > .05$, CFI = .99, RMSEA < .05) and did not differ significantly from the full sample

model ($\Delta\chi^2_{(130)} = 117.85$, $p > .05$). However, a multiple group model that constrained boys and girls to be equal on all paths resulted in a poorer fit to the data than the unconstrained model ($\chi^2_{(267)} = 495.74$, $p > .05$, CFI = .81, RMSEA > .05; $\Delta\chi^2_{(31)} = 252.10$, $p < .05$), suggesting sex differences in patterns of associations.

In order to identify the paths on which sex differences occurred, a series of models that individually constrained each path in the model to be equal for boys and for girls was compared to the unconstrained model using the Chi squared difference test. There were sex differences on the following paths (Chi squared difference test results given comparing the unconstrained multigroups model to the fit of a model that constrained the path to be equal for boys and for girls to the fit of): T3 defending on T2 defending ($\Delta\chi^2_{(1)} = 4.91$, $p < .03$); T3 defending on T2 moral disengagement ($\Delta\chi^2_{(1)} = 4.93$, $p < 0.05$); T2 moral disengagement on T1 defending ($\Delta\chi^2_{(1)} = 2.73$, $p < .10$); T2 moral disengagement on T2 defending ($\Delta\chi^2_{(1)} = 3.96$, $p < .05$).

Stability of moral cognitions and behaviour over time was also compared for boys and for girls. This was done by constraining the T1 to T2 paths to be equal to the T2 to T3 paths for each measure, separately for boys and for girls, and then comparing the fit of each of these models to that of the unconstrained multiple groups model using the Chi squared difference test. These comparisons revealed that girls' moral disengagement tended to become more stable over time (if paths constrained, $\chi^2_{(237)} = 246.40$, $p > .05$, CFI = .99, RMSEA < .05; $\Delta\chi^2_{(1)} = 2.76$, $p < .10$, therefore trend-level worse fit than the fit of the unconstrained model). Standardized coefficients for all significant paths are displayed in Figure 1.3 and paths that differed for boys and for girls are noted.

As shown in Figure 1.3, the pattern of association between moral disengagement and self-reported defending was negative as expected, except for one path for boys (path from T1 defending to T2 moral disengagement). For boys, there was a bidirectional association between defending and moral disengagement from T1 to T2, after which point only defending predicted later decreases in moral disengagement. For girls, moral disengagement was predictive of subsequent decreases in defending while defending did not predict subsequent changes in moral disengagement.

Peer-reported defending and moral disengagement. In the final analysis peer reported defending behaviour was used as the measure of experience. Again the initial stability model showed a good fit to the data ($\chi^2_{(113)} = 143.95$, $p < .05$, CFI = .96, RMSEA < .05) but the second model was again observed to be significantly better ($\chi^2_{(109)} = 124.34$, $p > .05$, CFI = .99, RMSEA < .05, $\Delta\chi^2$ (4) = 19.61, $p < .05$). The unconstrained multiple group model (boys and girls) had a poorer fit to the data ($\chi^2_{(242)} = 358.06$, $p < .05$, CFI = .90, RMSEA > .05) and was significantly different from the full sample model ($\Delta\chi^2_{(133)} = 233.72$, $p < .05$). Results are therefore given for the full sample, presumed to be equally valid for boys and for girls. As illustrated in Figure 1.4, having a reputation as a defender at T3 was best predicted by T1 defending and T2 defending, with a strong association observed between T1 and T2 defending. A similar autoregressive pattern was observed for moral disengagement. Next, while moral disengagement was related to lower levels of peer-reported defending at T1, the only significant cross-lagged path observed was T1moral disengagement predicting lower levels of peer-reported defending at T3.

Discussion

The current study examined the over-time associations between moral cognitions and defending versus passive bystanding during bullying situations. The global pattern that emerged provides partial support for a bidirectional relation between moral thought and action. Findings are therefore in line with the socio-cognitive theory of moral agency, which considers moral disengagement to be a self-regulatory strategy that is only recruited when conduct is at odds with presumed moral standards (Bandura, 1999). Results are summarized below within a discussion of methodological issues and gender effects that may account for some deviations from theory. Avenues for future research are also proposed.

Self-Reported Passive Bystanding and Moral Disengagement

As expected, there was a consistent pattern of positive associations between moral disengagement and self-reported passive bystanding, concurrently and over time. Specifically, variance in passive bystanding at the mid-point of the study was accounted for not only by whether children were passive to start off with, but also by their initial level of moral disengagement, with higher moral disengagement at T1 predicting greater passive bystanding at T2. In turn, increased passive bystanding at the mid-point predicted subsequent increased moral disengagement at T3. It is also noteworthy that passive bystanding became more stable over time as evidenced through the stronger path coefficients between the last two time points versus the first two time points. This increased stability may have been influenced by greater consonance between thoughts and actions over time. Therefore, the tendency of passive bystanders to rationalize aggressive behaviour as morally acceptable does seem to inhibit prosocial behaviour, and

this process appears to then feed into further such rationalizations. These findings support the possibility that moral disengagement serves as a coping function for those who witness disturbing bullying incidents yet do nothing to help the victims (Staub, 2000). That being said, studies that directly assess adjustment in bystanders who disengage versus those who remain engaged would offer a more thorough test of this theory.

Peer-Reported Passive Bystanding and Moral Disengagement

The interplay between moral disengagement and peer-reported passive bystander behaviour as operationalized using items from the "outsider" participant role scale (Salmivalli et al., 1996) differed from the patterns seen using self-reported passive bystanding. Based on both correlational findings and path analyses, an inconsistent set of associations was found over time between being seen as a passive bystander and moral disengagement. In the case of boys, if paths were significant, a pattern of negative associations emerged between passive bystanding behaviour and moral disengagement such that boys who are perceived to be passive bystanders are less likely to report high levels of moral disengagement; this negative association is in line with previous studies that have used a concurrent design (e.g., Gini, 2006). In contrast, the associations for girls, if significant, were in the positive direction, indicating that girls who are perceived to be passive during bullying situations are more likely to report greater moral disengagement. This positive association is consistent with the pattern observed using self-reported passive bystanding scores, and with the theoretical expectation that passive bystanders use moral disengagement strategies. Boys and girls also differed in how stable their peer-reported bystander behaviour was perceived to be. Boys' reputation as passive bystanders endured during the four-month period of this study, whereas girls' reputation

only became stable after the mid-point. Also for boys, passive bystanding at the mid-point predicted just as much variance in moral disengagement as did earlier levels of moral disengagement, and may have accounted for the decreased stability in boys' moral cognitions. Nonetheless, it seems as though reporting higher moral disengagement does not hold much weight in explaining whether peers view boys as passive bystanders.

Girls showed quite a different pattern, manifested by positive bidirectional associations between self-reported moral disengagement and peer-reported bystander behaviour up until the mid-point. Although there were no further direct influences, one cannot neglect the indirect influence that previous moral disengagement had in contributing to the near perfect stability of girls' reputation as a passive bystander into the final time point. Similarly, there was an indirect influence of peer-reported passive bystander behaviour on the near perfect stability of self-reported moral disengagement into the final time point. Thus, girls' early thoughts and passive bystanding behaviours exerted an influence on one another that set them on a more stable path. Perhaps with an additional time point, we may have detected continued reciprocal associations between moral disengagement and passive bystanding in girls. Overall, there is support for cognitive self-regulation in girls' passive bystanding behaviour.

But why did the expected pattern not emerge for boys? Differences in gender roles may offer a possible explanation (e.g., Maccoby & Jacklin, 1987), with gender stereotypes heightening expectations for prosociality in girls. Those girls who others detect as "staying out of bullying situations" have likely deviated the most from a "gentle-caring girl morality" (Thornberg, 2010), and may therefore be most in need of moral disengagement to cope with their "immoral" lack of intervention. In contrast, boys

who have the reputation of being a passive bystander may not be held to the same standard of "moral" conduct. While speculative, it may be the case that being a passive bystander is considered to be somewhat prosocial among boys, as supported by the consistently negative correlations between moral disengagement and passive bystanding in boys. Indeed, those boys who are perceived to stay out of bullying situations do not seem to need to legitimize aggressive behaviour in order to cope with their passivity. In contrast, boys who claim to be more passive using self-report do report higher moral disengagement (similar to girls). The divergence of self- and peer-reported passive bystanding may be explained by the possibility that those who report passive bystanding are somehow admitting to knowledge that the target of harassment is being harmed. Explicit knowledge of harm, by definition, makes the passive bystander behaviour fall within the realm of morality, thus amplifying the potential need for cognitive strategies to rationalize one's passivity in the face of another's suffering (Staub, 2000).

Self-Reported Defending and Moral Disengagement

An unexpectedly different pattern emerged for boys and girls using self-reported defending. Findings for girls were in line with the expectation that those higher on defending would be less likely to morally disengage, although the reverse direction was not supported. Rather, moral disengagement showed increasing stability over time in girls, independent of how much of a defender a girl reported to be. In contrast, girls were not as stable in their self-reports of defending, with additional variance in their defending behaviour being explained by previous levels of moral disengagement. In other words, moral cognitions, which tended to become progressively more rigid, were found to motivate defending behaviour in girls over time. Surprisingly, this behaviour change did

not feed back into shaping cognitions, perhaps due to increased cognitive rigidity. Bidirectional associations may better be captured in girls over a longer-term study that includes an earlier time point and a later time point to better capture the period of early adolescence.

The pattern of findings for boys was inconsistent and difficult to interpret. On the one hand, higher moral disengagement at the outset predicted lower self-reported defending at the mid-point, which in turn predicted higher moral disengagement at the final time point. In other words, there was evidence for the existence of a self-regulatory mechanism that ensures a match between boys' moral reasoning and agentive behaviour, and that this develops gradually over time (as per Bandura, 1999). On the other hand, and contrary to expectation, initial defending predicted increased moral disengagement at the mid-point for boys, suggesting a mismatch between thoughts and actions. Nonetheless, this counterintuitive effect did not spill over into the final time point. Indeed, nearly all of the variance in defending behaviour at the final time point was explained by previously reported defending, which had been shaped by greater initial moral engagement.

In any case, one cannot avoid speculating about the inconsistent finding: why do some boys who report to be defenders subsequently legitimize harmful behaviour? It may be the case that this finding has captured a subgroup of boys who engage in "antisocial" forms of defending (Rubinstein, 2005). Perhaps the greater frequency of overt forms of bullying observed among boys motivates "good" boys to behave a little "badly," perhaps toward bullies in particular, in order to defend a victim in need. As such, cognitive strategies to come to terms with the dissonance between thoughts and actions may be

required. The merits of this interpretation should be verified by exploring the moderating effect of aggression on the association between moral disengagement and defending (e.g., Barchia & Bussey, 2011b). This effect seems to disappear over time, in parallel to decreasing mean levels of defending among boys. With evidence that levels of victimization decrease across the school year (Saldarriaga, 2011), there may be a reduced need to defend victims later in the school year. Perhaps with time, social roles and social hierarchy stabilize, and victimization (including being aggressive toward a bully in defense of a victim) may no longer be needed as a control strategy to ensure that the peer group attains its goals of cohesion and homogeneity (Bukowski & Sippola, 2001).

Peer-Reported Defending and Moral Disengagement

Despite the importance of using self-reported defending in order to identify children who may not be as public in their defense of victims as some other children, using a single informant to report on thoughts and behaviours may inflate effect sizes due to shared method variance. As such, the interplay between moral disengagement and defending was also tested using peer-reported behaviours. Although peer-reports are also subject to certain biases (e.g., reputation that persists beyond behaviour change), peer-reported defending was used to reduce biases due to shared method variance, as well as to reduce some of the biases inherent in self-report measures (e.g., social desirability responding). As expected, associations between moral disengagement and peer-reported defending, if significant, were negative both concurrently and over time. However, not all paths in the three timepoint panel model were significantly associated. This may be due to the use of cross-informants, as evidenced by the associations between peer-reported defending behaviour over time; although a negative association was found between moral

disengagement and defending initially, much of the variance in defending at the final time point was explained by initial defending, which contributed to final defending both directly and indirectly through defending at the mid-point. The fact that this "reputation effect" was not found to be as strong for peer-reported passive bystanding may be due to the greater difficulty for the peer group to consistently report lack of behaviour, as in the case of identifying passive bystanders, compared to reporting on overt behaviours, as in the case of identifying defenders.

Notwithstanding the stability of peer-reported defending, children that the peer group initially identified as highest on defending reported lower concurrent levels of moral disengagement, as found in previous studies (e.g., Gini, 2006). In turn, initial low moral disengagement predicted higher subsequent defending. This pattern is in line with the socio-cognitive theory of moral agency as well as with previous findings showing that children whose moral principles do not waver depending on situational factors are more prone to engage in prosocial behaviour (Bandura et al., 1996). Nonetheless, the pattern of change in moral disengagement in a model containing peer-reported defending did not fully support the idea of an interplay between thoughts and behaviour. Perhaps longer stretches of time are needed to capture the gradual change postulated in the theory, particularly when behaviour is assessed by others who may not detect minor, yet potentially significant behavioural change. Indeed, aside from the impact that defending may have had on initial moral disengagement, changes over time in moral disengagement were mostly driven by the cognitive strategies that children started out with, as indicated by the direct and indirect links between initial and final levels of moral disengagement.

Taken together, the findings of the current study provide partial support for the socio-cognitive theory of moral agency (Bandura, 1999) in that greater moral engagement explains some variance in subsequent defending behaviour, and that those who rationalize immoral conduct as somehow acceptable display a pattern of passivity when faced with bullying situations. This general pattern was observed over time, across informants, and between sexes. The only outright contradiction to the theory occurred for boys, who, for part of the study displayed increasing moral disengagement as a function of higher levels of self-reported defending. The following future directions are suggested in order to build upon the current findings and to offer recommendations for the optimization of programs aimed at recruiting passive bystanders to intervene in defense of their victimized peers.

Future Directions

How to achieve more consistent results? *a) Peer-reports of passive bystander behaviour.* The findings of this study suggest that the negative concurrent association between passive bystander behaviour and moral disengagement reported in previous studies may be masking both over-time associations and gender effects. The matching pattern of associations using self- and peer-reported bystanding in girls adds credibility to a theory of cognitive self-regulation of moral behaviour. Indeed, the morality of being a passive bystander who does nothing to help a victimized peer is explicit in the self-report measures and appears to be implicit for girls who are nominated as passive bystanders. Understanding why this pattern did not occur for boys is a worthwhile avenue for future research. This may be achieved by developing peer-report measures that explicitly outline a nominated bystander's knowledge of harm to the victim. With the greater specificity

afforded by such a measure regarding the "immorality" of passive bystanding, it is expected that nominated boys may show a similar pattern to the one observed in nominated girls and via self-report, thus lending further support to theory. *b) Control for levels of aggression.* The counterintuitive finding regarding greater moral disengagement in higher defending boys raises the question of how aggressive those boys were to begin with. As such, level of aggression should be controlled for in future studies (e.g., Barchia & Bussey, 2011b).

Is moral disengagement adaptive for bystanders? Another worthwhile direction to explore is to test the assumption that moral disengagement is somehow adaptive for passive bystanders, as suggested by theory and implied by previous research (e.g., Obermann, 2011). A study that assesses the moderating effect of moral disengagement on bystanders' levels of adjustment over time (e.g., sense of guilt, self-esteem) would lend further validity to this claim. If self-worth is indeed enhanced or worsened as a function of moral-cognitive self-regulation (Hymel et al., 2005), then bystanders who remain morally engaged should report greater levels of self-condemnation.

How to better capture change over time? Longer-term longitudinal studies may better capture changes in moral disengagement over time given the assumption that such changes occur due to a gradual pattern of reciprocal feedback between thoughts and behaviours. On the flip side, it may be the case that more transient changes in moral disengagement may be best captured during the immediate time frame surrounding a morally challenging incident. That is, moral disengagement may reach a temporary peak at this early stage of cognitive challenge and then decrease to a steadier pattern best observed in the longer-term. It is recommended therefore to design studies that can test

more immediate and shorter term changes in order to fully appreciate the influence of the mechanisms of moral disengagement. This may be achieved through the use of daily diary tools or multiple daily assessments using handheld mobile devices over the course of several days. Experimental manipulation in a laboratory setting may also tap into more immediate changes in disengagement mechanisms, thus uncovering changes that were not perceptible within the present study's design. Also, applying a burst design with multiple assessments within multiple time points over a longer period is ideally suited to tracking short-term and long term change.

Conclusions

The current study provides rare insight into the longitudinal associations between moral disengagement and bystander behaviour during bullying incidents. Assessing a diverse community sample of Canadian early adolescents over three time points and with the use of multiple informants allowed for the identification of some important distinctions between passive bystanders and defenders. While several avenues for future research remain, there is support for targeting change in moral disengagement as a way to recruit passive bystanders to intervene in defense of victims, with the ultimate goal of curbing the incidence of school bullying. That being said, the association between moral disengagement and bystander behaviours was less than perfect suggesting the potential role of other predictors. The studies presented in the following two chapters test personality and friendship as predictors and potential moderators of the link between moral disengagement and bystander behaviours.

Table 1.1. Descriptive statistics for the study variables for boys (*n = 68)* and for girls (*n = 62)*.

	Boys		Girls			
Variables	M	(SD)	M	(SD)		Repeated Measures ANOVAs[a]
T1 SR Defending	3.56	(1.00)	3.58	(.72)		Time : F (2, 256) = 14.73, η_p^2 = .10;
T2 SR Defending	3.43	(1.04)	3.68	(.77)		T1 = T2, T3 < T1, T2.
T3 SR Defending	3.24	(1.07)	3.29	(.71)		Time x Sex: F (1, 128) = 4.07, η_p^2 = .03
T1 SR Bystanding	2.37	(.80)	2.34	(.66)		
T2 SR Bystanding	2.33	(.88)	2.22	(.59)		
T3 SR Bystanding	2.22	(.79)	2.26	(.58)		
T1 PR Defending	1.81	(1.12	2.36	(1.37)	*	Time : F (2, 256) = 35.48, η_p^2 = .22;
T2 PR Defending	1.24	(.90)	1.76	(.96)	*	T1 > T2, T3; T2 = T3.
T3 PR Defending	.95	(.86)	1.94	(1.06)	*	Sex: F (1, 128) = 453.45, η_p^2 = .13
						Time X Sex: F (2, 256) = 4.94, η_p^2 = .04
T1 PR Bystanding	1.54	(1.02)	2.60	(1.18)	*	Time : F (2, 256) = 28.16, η_p^2 = .18).
T2 PR Bystanding	1.45	(.99)	1.57	(1.17)		T1 > T2, T3 ; T2 = T3.
T3 PR Bystanding	.82	(.74)	1.97	(1.18)	*	Sex: F (1, 128) = 27.74, η_p^2 = .18
						Time X Sex: F (2, 256) = 17.67, η_p^2 = .12
T1 MD	2.20	(.58)	1.99	(.55)	*	Sex: F (1, 128) = 7.56, η_p^2 = .06
T2 MD	2.22	(.65)	1.98	(.55)	*	
T3 MD	2.27	(.78)	1.94	(.59)	*	

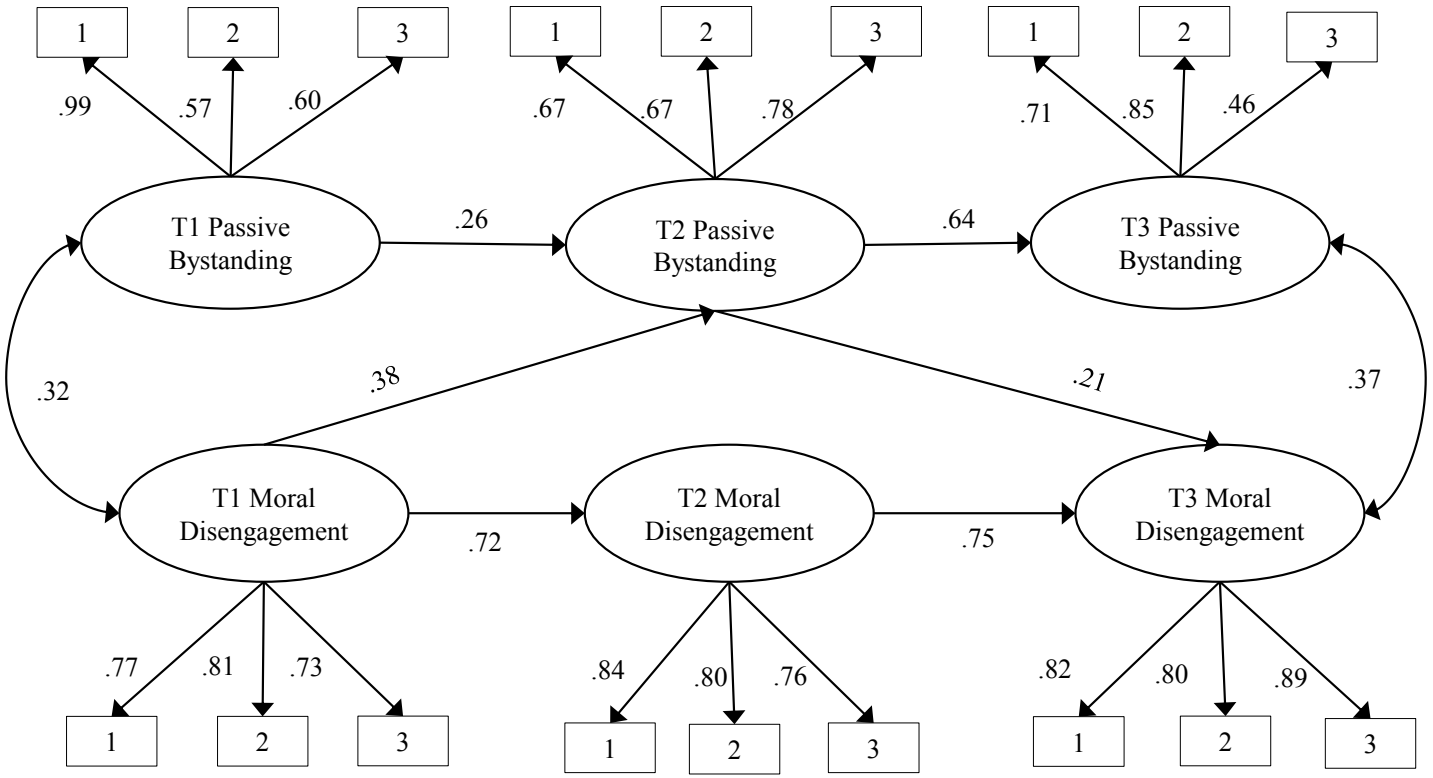
Notes: *Sex difference at the corresponding time point, PR: Peer-report, SR: Self-report, MD: Moral Disengagement. [a]Sex and time effects (p < .05).

Table 1.2. Pearson zero-order correlation coefficients for boys (below the diagonal) and for girls (above the diagonal)

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1. Age_years	–	.02	- .09	.06	.20	.17	- .08	.17	- .04	.03	.19	-.36**	- .07	- .19	- .08	- .04
2. T1 SR Defending	.19	–	.55**	.53**	-.39**	- .24	-.30*	.26*	.18	.12	- .09	- .08	- .10	-.39**	-.35**	-.23*
3. T2 SR Defending	- .01	.67**	–	.63**	-.43**	-.61**	-.32*	.20	.13	.03	-.28*	- .13	- .16	-.36**	-.36**	-.34**
4. T3 SR Defending	.11	.77**	.77**	–	-.43**	-.45**	-.38**	.35**	.23	.11	- .08	- .20	- .21	-.41**	-.44**	-.40**
5. T1 SR Passive Bystanding	.03	-.45**	-.47**	-.47**	–	.53**	.21	- .24	- .25	- .05	.02	.09	.13	.31*	.27*	.32*
6. T2 SR Passive Bystanding	.09	-.32**	-.43**	-.34**	.33**	–	.39**	- .22	- .15	.04	- .02	.15	.21	.36**	.36**	.46**
7. T3 SR Passive Bystanding	- .02	-.46**	-.45**	-.38**	.38**	.59**	–	- .20	- .09	- .12	- .02	.03	.07	.23	.40**	.50**
8. T1 PR Defending	- .20	.11	.02	.11	- .09	.11	.08	–	.62**	.62**	.33**	- .14	- .09	-.42**	-.30*	-.36**
9. T2 PR Defending	-.36**	.17	.15	.21	- .08	- .03	- .10	.67**	–	.54**	.20	.31*	.18	-.25*	- .06	- .13
10. T3 PR Defending	- .09	.24*	.18	.32**	- .13	- .02	- .06	.61**	.53**	–	.14	.05	.00	-.35**	- .21	- .19
11. T1 PR Passive Bystanding	-.52**	-.28*	- .11	- .20	- .02	.04	.01	.36**	.41**	.30*	–	.31*	.33**	- .01	.11	.08
12. T2 PR Passive Bystanding	-.31**	- .12	.02	- .12	- .05	.06	.03	.31*	.30*	.34**	.65**	–	.58**	.19	.24	.16
13. T3 PR Passive Bystanding	- .15	- .06	- .02	- .04	.00	.02	- .02	.18	.02	.17	.52**	.47**	–	.27*	.19	.24
14. T1 Moral disengagement	- .02	- .22	-.41**	-.34**	.34**	.32**	.27*	- .15	- .15	- .19	- .23	- .13	- .08	–	.62**	.59**
15. T2 Moral disengagement	.09	.04	- .16	- .11	.11	.20	.04	- .08	- .14	- .05	- .16	- .03	- .10	.51**	–	.82**
16. T3 Moral disengagement	- .01	- .13	-.45**	-.36**	.36**	.28*	.34**	- .09	- .17	-.26*	-.26*	- .20	- .16	.67**	.60**	–

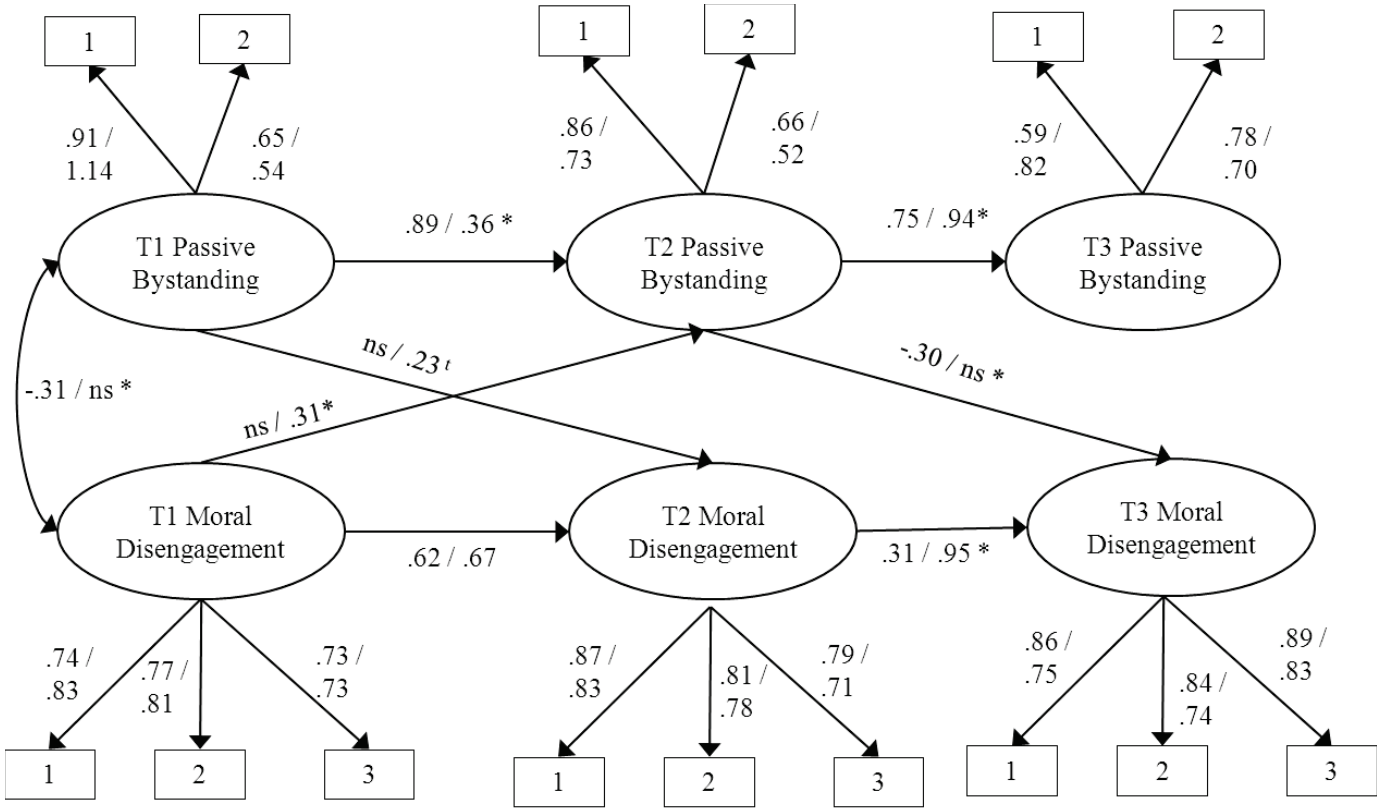
Notes: SR= Self-report; PR= Peer-report; **p <.01; *p <.05.

Figure 1.1. **Moral disengagement and self-reported passive bystanding over time**



Note: $\chi^2_{(109)} = 122.26$, $p > .05$, CFI = .99, RMSEA < .05. Standardized path coefficients ($p < .05$).

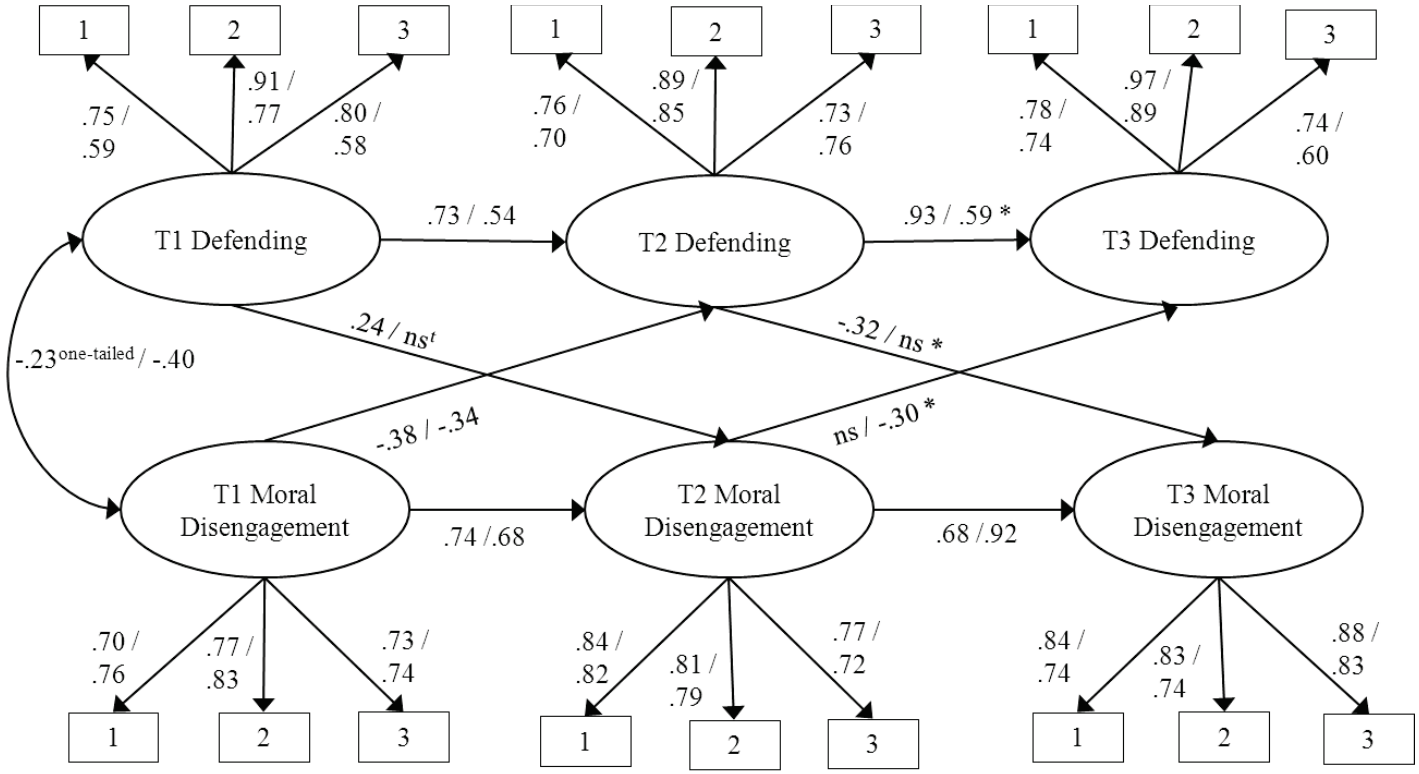
Figure 1.2. Moral disengagement and peer-reported passive bystanding over time.



Note: $\chi^2_{(164)} = 150.23$, $p > .05$, CFI = 1.00, RMSEA < .05.

Standardized path coefficients for boys / girls ($p < .05$). Sex differences: * $p < .05$, $^t p < .10$

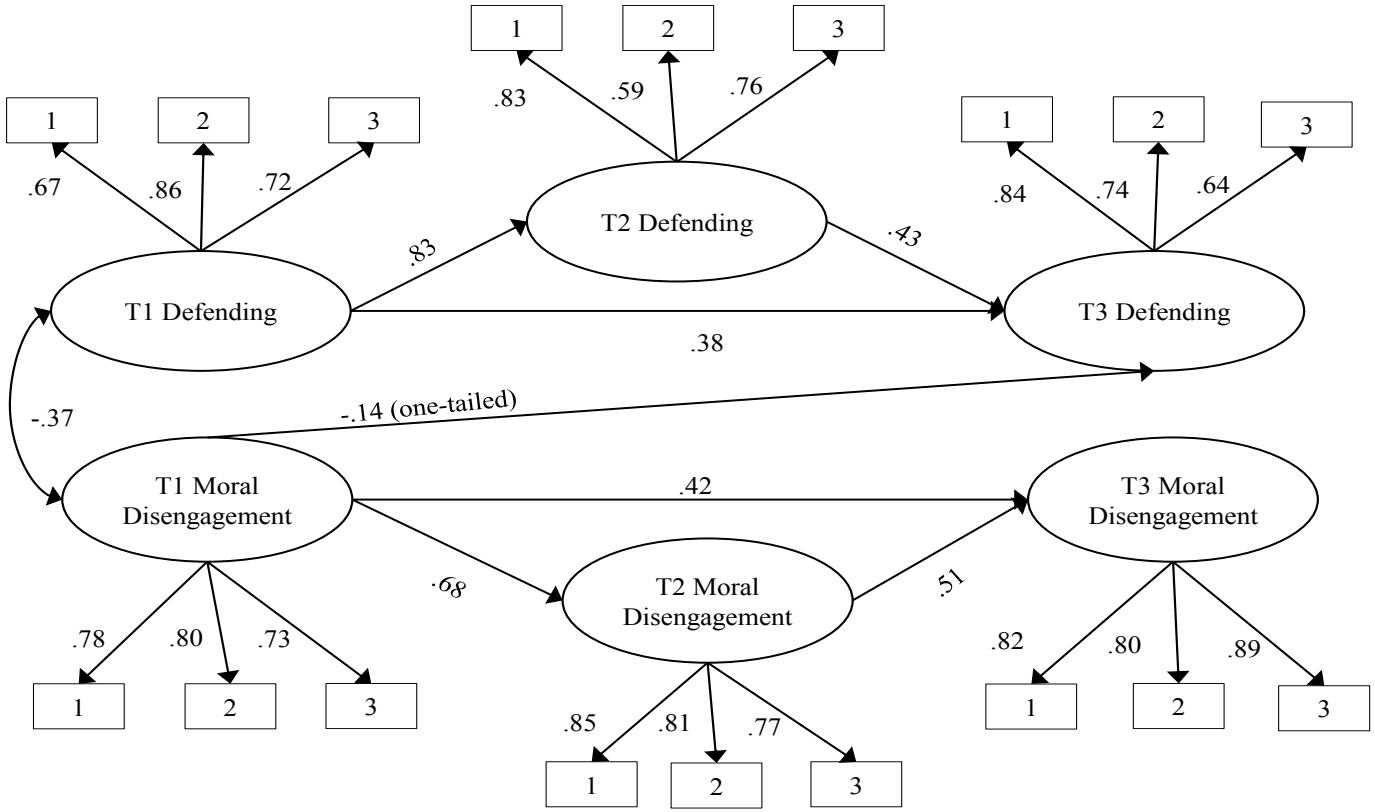
Figure 1.3. **Moral disengagement and self-reported defending over time.**



Note: $\chi^2_{(236)} = 243.64$, $p > .05$, CFI = .99, RMSEA < .05.

Standardized path coefficients for boys / girls ($p < .05$). Sex differences: * $p < .05$, $^t p < .10$

Figure 1.4. **Moral disengagement and self-reported defending over time.**



Note: $\chi^2_{(109)} = 124.34$, $p > .05$, CFI = .99, RMSEA < .05. Standardized path coefficients ($p < .05$).

Chapter 2: The Interactive Effect of Personality and Moral Disengagement in Predicting Bullying Bystander Behaviours

There is growing interest among bullying researchers to understand factors that differentiate bystanders who come to the defense of victimized peers from those who do not. The principal rationale for this avenue of research is to guide peer-led interventions to curb school bullying, a fruitful endeavour considering research that has demonstrated the effectiveness of peer defenders. For instance, defending behaviour has been found to diffuse over half of bullying episodes in less than ten seconds (Craig & Pepler, 1997). Unfortunately the vast majority of children do not come to the aid of victims despite recognizing the harmful and unjust nature of bullying, as gauged through their frequently reported anti-bullying attitudes (e.g., Rigby & Johnson, 2006). There is much yet to be done to clarify the complexity of bystander behaviour, and any such attempt requires the consideration of multiple factors that must be examined in combination in order to identify potential interactive effects.

The current study aimed to achieve this goal through a novel and multi-faceted conceptualization of bystander behaviour that draws from two theoretical frameworks: Bandura's socio-cognitive theory of moral agency and Gray's reinforcement sensitivity theory (Bandura, 1999; Gray, 1970, 1987; Gray & McNaugton, 2000). An investigation based on these two theories in combination was expected to reveal the interplay between morality and personality in explaining variance in bystander behaviour. In other words, bystanders were not only evaluated along a moral-immoral dimension, but also according to the potential influence of fundamental temperamental traits that may underlie their tendency to either intervene as defenders, to stand by as passive witnesses, or to

aggravate the problem as bully-reinforcers. The moral dimension, alone, was only expected to account for differences in prosocial versus aggressive behaviours (i.e., defending versus bully-reinforcing), while the personality dimension, alone, was only expected to account for differences in active versus passive behaviours (i.e., defending and bully-reinforcing versus passive bystanding). Furthermore, interactions between the moral and the personality factors were also considered as these would allow for more sensitive hypotheses to predict bystander behaviour based on a combination of differing degrees on both dimensions. For example, defending may be seen as an active and prosocial behaviour.

The (Im)morality of Bystander Behaviour

Bandura's social cognitive theory of moral agency offers an explanation for deviations between moral principles and actual conduct (Bandura, 1999). The theory defines the construct of moral disengagement as a self-regulatory cognitive strategy in which acts that go against one's moral code are legitimized, either in anticipation of committing these acts or after these acts have been committed in order to cope with the negative emotions (e.g., guilt) that result from doing what one usually believes to be wrong. According to the theory, moral disengagement inhibits prosocial behaviour and disinhibits aggression. Considering the disproportion between the majority of children who report anti-bullying attitudes and who state intentions to support hypothetical victimized peers versus the minority who actually take on the defender role (Rigby & Johnson, 2006), it may be the case that moral disengagement mediates the influence of one's moral standards on one's behaviour. While defenders should remain morally engaged due to the consonance between prosocial thoughts and defending behaviour,

passive bystanders may need to justify aggression as a way of dealing with their passivity in the face of a fellow peer being harassed. Bully-reinforcers would also be expected to rely on moral disengagement strategies given that they not only tolerate witnessing aggressive acts, but are motivated to encourage aggressors (e.g., by cheering). While moral disengagement has consistently been linked to bullying behaviour (e.g., Menesini et al., 2003; Hymel et al., 2005) and has distinguished bullies from defenders (e.g., Gini, 2006), the question of whether passive bystanders or bully reinforcers are prone to moral disengagement has been largely overlooked to date.

The Bystander Effect as a Reason for Passivity

While moral disengagement may inhibit prosocial behaviour, prosocial behaviour during bullying situations may also be suppressed by socio-emotional processes related to the bystander effect. The bystander effect is a phenomenon described as the tendency to refrain from or to delay offering help when witnessing emergency situations when there are other bystanders present (reviewed by Darley & Latané, 1968; Latané & Nida, 1981; Latané & Darley, 1968; Staub, 1970). In other words, one's response to another's distress in such situations is thought to not only be a function of moral agency, but also a function of the perceived ambiguities and uncertainties that may arise from the mere presence of other witnesses. Given that multiple bystanders are typically present during bullying incidents – namely, incidents when someone is being harmed and in need of help – bullying bystanders may fall under the influence of the bystander effect.

Drawing from the vast research on the bystander effect from the field of social psychology, several processes may hinder bystander intervention during bullying. For instance, children witnessing bullying may expect others to take action before they

themselves become likely to intervene ("diffusion of responsibility;" Latané & Darley, 1970). Or, they may interpret the inaction of other bystanders as a sign that the interaction between the bully and the victim is not that serious ("pluralistic ignorance;" Bierhoff, 2002).

Along the same lines, witnesses who feel that they are not competent may have doubts about whether their intervention will result in more harm than good. The possibility that bystanders succumb to doubts about the benefit and the need for intervention raises several deontological issues that blur the moral limits of one's duty to rescue a fellow human being from harm. According to consequentialist thinking (e.g., Singer, 1972), a witness is absolved of his moral duty to rescue if his help is neither sufficient (i.e., not capable of providing appropriate assistance) nor necessary (e.g., another more capable or morally responsible person, such as the parent of the victim, is present). Consequentialism even leaves room for uncertainty regarding necessity and sufficiency, in which case "the duty has in it a latitude for doing more or less, and no specific limits can be assigned to what should be done" (Kant 1996 [1797], 156). In bullying situations, those who believe themselves to be "sufficient" as defenders as determined through higher self-efficacy beliefs (i.e., beliefs about one's competence as a defender) are indeed more likely to defend or "rescue" their victimized peers (Pöyhönen & Salmivalli, 2008; Pöyhönen, Juvonen, & Salmivalli, 2010; Thornberg & Jungert, 2013).

Beyond the issue of competence, yet perhaps related to it, is the issue of whether rescuing a peer in distress poses a risk of harm to the rescuing agent. For instance, bystander processes such as "fear of social blunders" and "audience inhibition" (e.g.,

Bierhoff, 2002; Hogg & Vaughan, 2008) may have a particularly strong impact on children who are more socially anxious; such children may be more likely to remain passive due to concerns over embarrassing themselves. Another type of fear that may arise in bystanders of bullying situations is the fear that by intervening they may become targets themselves. According to research demonstrating the social power of bullies (e.g., Mayeux & Cillessen, 2008; Caravita et al., 2009; Juvonen & Galvan, 2008), children who step in as defenders may at the very least jeopardize their social status within the peer group. Thus, one's moral duty to rescue a victim in distress may be limited by "the comparable cost condition," a condition that takes into account a rescuing agent's own right to basic well-being (Bauhn, 2011; Quong 2009, 517). According to the utilitarian notion of "maximizing the good" (Mill, 1987[1863]), trying to help may actually be morally "wrong" when one considers the possibility that the rescuer may suffer to an equal degree as the victim, or that by intervening, the rescuer may add to the distress of the victim (in the case of incompetent defending).

The complexity of evaluating passive bystander behaviour is compounded by a methodological issue. Passive bystander behaviour has typically been measured as "outsider" status using the peer-reported version of the Participant Role Questionnaire (Salmivalli et al., 1996). In the limited number of studies that have investigated the association between peer-reported passive bystanding and moral disengagement, a negative association has been found with moral disengagement and a low but positive correlation found between passive bystanding and defending (e.g., Gini, 2006). In contrast, self-reported passive bystanding has been shown to display a negative association with defending, and has been related to a lower sense of responsibility to

intervene in defense of victims (Pozzoli & Gini, 2010). Thus, while passive bystanding may be considered a more avoidant form of bystander behaviour, findings to date imply that merely standing by is not necessarily "immoral."

In short, although moral disengagement is a cognitive strategy that is postulated to dissuade moral action in morally compelling situations and to help cope with such a mismatch, socio-emotional factors during bystander situations blur the moral limits of passivity. Moreover, there may be individual differences in one's susceptibility to the bystander effect independent of one's moral character (e.g., self-efficacy, social anxiety). Thus, assessing bystander behaviour solely along a moral dimension may be overly simplistic. The revised reinforcement sensitivity theory (Gray & McNaughton, 2000) offers a framework for formulating hypotheses about how individual differences in children's sensitivity to punishment and sensitivity to reward may modulate bystander behaviours. The current study assumed that core personality traits would amplify or dampen the bystander effect by influencing one's response to the inherent ambiguities, conflicting information, and potential rewards and punishers of bystander situations.

Individual Differences in Susceptibility to the Bystander Effect: The Role of Personality

Reinforcement sensitivity theory postulates that individual differences in personality are driven by fundamental brain systems that regulate emotionally motivated decisions to approach or to avoid situations (Gray, 1970; Gray, 1987; revised by Gray & McNaughton, 2000). The behavioural activation system (BAS) is thought to be sensitive to reward stimuli in a way that motivates approach behaviours. The behavioural inhibition system (BIS) is thought to be the biological basis of anxiety and was originally

proposed to be a punishment system that inhibits behaviour in response to conditioned aversive stimuli. A later revision of the theory (Gray & McNaughton, 2000) added a third control system, the flight, fight, freeze system (FFFS) which has been described as a defensive-avoidance system (McNaughton & Corr, 2008). The FFFS is thought to modulate responses to all aversive stimuli (conditioned or unconditioned), with the specific behavioural response depending on whether escape is possible (flight) or not possible (fight or freeze). Also in the revised theory, the BIS is no longer considered to merely be a system that is sensitive to punishment, but rather to the detection and resolution of conflicting goals created by stimuli that activate both the BAS and the FFFS (i.e., both reward and punishment cues). Although the BIS is still considered to underlie the experience of anxiety (Wardell, O'Connor, Read, & Colder, 2011), it is now classified as a conflict resolution system that does inhibit behaviour, but only until a context-appropriate response is activated by either the BAS or the FFFS (Corr, 2002). Finally, unlike earlier descriptions of the BIS and the BAS as independent of one another (Gray, 1987), the joint-subsystems hypothesis formulated by Corr (2002) holds that these brain systems work in an interactive manner to control behaviour. Basically, the resolution of approach-avoidance conflicts, which are perceived most in those who have a strong BIS, may tip in favor of approach for those who also more sensitive to reward cues (i.e., strong BAS).

Studies exploring the role of BIS-BAS sensitivity in children's socio-emotional and behavioural adjustment have been accumulating over recent years. The BIS has been linked with poor perceptions of peer relations and consistently associated with several measures of internalizing problems such as depression, anxiety, and behavioural

avoidance (e.g., Kingsbury, Coplan, Wilson, Weeks, & Rose-Krasnor, 2013; Coplan, Frohlick, & Zelenski, 2006; Muris, Meesters, Kanter, & Timmerman, 2005). While studies examining the BAS in children have provided mixed results, significant findings point toward a link between the BAS and conduct problems (e.g., Colder & O'Connor, 2004; Muris et al., 2005). One recent study examined the interplay between the BIS and the BAS in predicting children's socio-emotional functioning and found support for the joint subsystems hypothesis (Kingsbury et al., 2013). For instance, higher BIS sensitive children were more likely to report depressive symptoms and poor peer relations, except if they had higher BAS-sensitivity.

Although BIS-BAS sensitivity has not been applied to the understanding of bullying-related behaviour, the fundamental processes outlined in reinforcement sensitivity theory provide a useful framework for predicting differences in bystander behaviours. Specifically, activation of overt approach behaviours in bystanders may be a response to BAS sensitivity. While some children may have learned to feel rewarded by engaging in prosocial behaviour, others may find aggression to be more rewarding. Moral disengagement offers an evaluative component that guides predictions regarding the type of behaviour that might be most rewarding to a particular child: those who are most morally disengaged may find aggressive behaviour rewarding while those who are morally engaged may find prosocial behaviour more rewarding.

BIS sensitivity may also play an essential role in bystander behaviour considering the threatening nature of bullying as well as the ambiguities inherent in bullying situations that generate approach-avoidance conflicts, and thus feed into the bystander effect. Drawing from reinforcement sensitivity theory (Gray & McNaughton, 2000), BIS

sensitivity was expected to inhibit behaviour in bystander situations due to a heightened perception of conflicting goals given the complexity of bullying situation, the risks involved in intervening, and the need to think and act quickly as a defender. For instance, bystanders may perceive a conflict between helping a victim by remaining passive, helping a victim by intervening, wishing to protect oneself, and desiring to be perceived as helpful by others. Importantly, if the child is to approach the bullying situation, engagement will be inhibited until the conflict is resolved. A bystander's response to this conflict may be manifested as: 1) inhibition or greater passive bystander behaviour in the face of a particularly punishing and anxiety-provoking stimulus (i.e., outright avoidance: flight or freeze), or 2) engagement in approach behaviour, but in an overly cautious and hesitant manner. High BIS sensitive individuals may be even more likely to fall under the influence of the bystander effect than other witnesses due to a heightened sense of uncertainty about what to do, given the tendency to perceive several conflicting goals. Due to the processing of perceived conflicting stimuli, children with a high BIS may therefore be less efficient at providing the immediate response that is often needed to diffuse bullying situations (Craig & Pepler, 1997). Moreover, the inhibitory effect of the BIS should be most evident for behaviours that are inconsistent with one's moral code. In other words, the BIS should amplify the effects of moral disengagement (Bandura, 1999).

The interactive effect of the BIS and the BAS (Corr, 2002) in influencing bystander behaviour likely depends on the rewards (e.g., popularity, praise, positive affect) and punishers (e.g., rejection, negative affect) a child has learned to associate with a given bystander behaviour It is important to note that developmentally, BIS and BAS sensitivity likely plays a role in the formation of these associations, but which specific

associations are learned is context-dependent (e.g., some social contexts may reward aggressive behaviour). While a child who is BIS sensitive may engage in an approach behaviour, this likely requires a stronger BAS to overcome the inhibitory effect of the BIS. It is important to recognize that both prosocial behaviour (i.e., defending) and more aggressively motivated behaviour (i.e., bullying, bully reinforcing) are expressions of approach behaviours.

Objectives and Hypotheses

The objective of the current study was to investigate the associations among moral disengagement, BIS-BAS sensitivity, and bystander behaviours (i.e., defending, passive bystanding, and bully reinforcing). Several hypotheses were formulated by synthesizing the postulates of the socio-cognitive theory of moral agency (Bandura, 1999), the most recent revision of reinforcement sensitivity theory (Gray & McNaughton, 2000), as well as the joint subsystems hypothesis (Corr, 2002).

Hypothesized main effects. *Moral disengagement* was expected to inhibit prosocial behaviour and to motivate aggressive behaviour. Thus, higher levels of moral disengagement were expected to be related to lower levels of defending and higher levels of bully-reinforcing. The current study operationalized passive bystanding using peer-reported outsider behaviour (Participant Role Questionnaire; Salmivalli et al., 1996). Given the methodological issues highlighted earlier with regard to self- versus peer-reported passive bystander behaviour, no hypothesis was formulated for the direction of association between moral disengagement and passive bystanding. The *BIS* was expected to inhibit approach behaviours and to increase avoidant behaviours. As such, a negative main effect was expected for defending and reinforcing and a positive main effect was

expected for passive bystanding. The *BAS* was expected to activate approach behaviours and to disinhibit avoidant behaviours. As such, a positive main effect was expected for defending and bully reinforcing such that the higher the BAS the higher the likelihood of defending and bully reinforcing, and a negative main effect was expected for passive bystanding such that the higher the BAS the lower the likelihood of passive bystanding.

Hypothesized two-way interactions between moral disengagement, the BIS, and the BAS. The BIS was expected to inhibit behaviour in a way that matches moral cognitions. As such, the BIS was expected to inhibit defending in those who are *high* on moral disengagement and to inhibit bully reinforcing in those who are *low* on moral disengagement. No direction was hypothesized for predicting passive bystanding given the plausibility of either direction: a morally engaged child who is high on the BIS may hesitate more than others to "take sides" in order to find the best solution for a victim in a conflict-ridden and nuanced situation; in contrast, a morally disengaged child who is high on the BIS may be even more likely to rationalize bullying resulting in even greater avoidant behaviour.

The BAS was expected to increase approach behaviour especially if it matches moral cognitions (i.e., increase defending in those who are morally engaged and increase reinforcing in those who are morally disengaged). The interactive effect of moral disengagement and the BAS on passive bystanding remained exploratory.

The BIS and the BAS were expected to interact in predicting approach versus avoidant behaviours. It was assumed that for high BIS children to approach bullying situations they would also need to have a higher BAS. In contrast, for high BIS children to not display avoidant tendencies, they would also need to have a higher BAS.

Hypothesized three-way interaction. Given the number of variables included in this study, it was unlikely that a three-way interaction between moral disengagement, the BIS, and the BAS would be detected. Nonetheless, theory-driven hypotheses were formulated and tested as a reference for future work in this budding area of research. The assumption once again was that bystander behaviour would align with both personality traits and moral cognitions, with BIS sensitivity expected to dampen the activating effect of the BAS.

The aforementioned hypotheses were tested using a design that benefitted from a multi-method computer-based data collection procedure that combined self-reports, peer-reports, and a cognitive task. There are several advantages to having employed a computerized assessment procedure (Van den Berg & Cillessen, 2013), including the ability to measure the BIS and the BAS using a reaction time task that has been validated for child samples and that is adapted to the most recent version of reinforcement sensitivity theory: the Point Scoring Reaction Time Task for Children-Revised (PSRTT-CR; Colder & O'Connor, 2004; Colder, Trucco, Lopez, Hawk, Read, Lengua, Weiczorek & Eiden, 2011).

While self-report and parent-report measures of the BIS and the BAS do exist and have been useful in understanding factors related to these fundamental dimensions of personality (e.g., Carver & White, 1994; Colder & O'Connor, 2004; Muris, et al., 2005), Nisbett and Wilson's (1977) classic article highlights the limitations of using self-report methods to assess mental processes, such as the deeper level processing postulated in reinforcement sensitivity theory. Implicit cognitive processes likely account for some of the learning and motivational responses influenced by the BIS and BAS. Implicit

cognitive processes, as opposed to explicit cognitions are automatic, affect-driven, and intuitive and are therefore not easily accessible to conscious thought, and in turn are not accurately reported upon via self-report, particularly in younger samples. Despite an increased use of methodology that taps into implicit processes in psychological research (e.g., the Implicit Association Task; Greenwald & Farnham, 2000), such methods have been rarely used in peer relations research (some exceptions: Lansu, Cillessen, & Karremans, 2012; Sandstrom & Jordon, 2008; Rosen, Milich, & Harris, 2007).

Method

Participants

The sample consisted of 130 participants (68 boys and 62 girls) in grades four, five, and six, with an average age of 11.36 years (*SD* = .69; range: 9.47 – 13.61 years; no mean differences in age between boys and girls). Over 70% of the participants' parents were born in Canada. The majority of children stated that they mostly spoke English at home (66%), with the remainder reporting to speak French or other languages. Culture and ethnicity was queried in an open-ended fashion resulting in a diverse response set. Parent reports yielded a wide range of socioeconomic status.

Procedure

The current study was part of a larger three-way longitudinal study that took place between January and June 2012. Prior to the data collection, permission was obtained from the local school board, the principals, the teachers, and the parents. Children's assent was also obtained. Nine percent of the original sample was absent at the third time point. No gender or age differences were found between the children who were present and those who were absent. Multiple imputation was used to deal with missing data (see

Results section). Self-report and peer-report questionnaires were administered on netbook computers and programmed in Inquisit 3.0 (Seattle, WA: Millisecond Software). The many benefits of computerized assessments over paper and pencil methods are described by Van den Berg and Cillessen (2013). Participants were given school supplies and a t-shirt as remuneration for being in the study.

Measures

Moral disengagement. Moral disengagement was assessed using an abridged version of the 32-item Mechanisms of Moral Disengagement Scale (Bandura et al., 1996). Participants were asked to rate their degree of agreement to 12 statements on a five-point Likert scale (1 = strongly disagree to 5 = strongly agree) representing four broad dimensions: restructuring immoral behaviour (3 items, e.g., "It is okay to insult a classmate because hitting him or her would be worse"), blaming / dehumanizing the victim (3 items, e.g., "Kids who get mistreated usually do something to deserve it"), obscuring personal responsibility (3 items, "Kids cannot be blamed for misbehaving if their friends pressured them to do it"), and misrepresenting injurious consequences (3 items, e.g., "Teasing someone does not really hurt them"). These 12 items were randomly assigned to one of three parcels (Little et al., 2002) that would be used as the observed measures in latent variable models. Confirmatory analyses showed that these parcels were manifestations of a single factor (e.g., omega = .88).

Peer nominations. Defending, passive bystanding , and bully-reinforcing were assessed using peer-reports (Bukowski et al., 2011). Participants were presented with a list of the names of every participating classmate along with a description of a form of functioning within the peer group. The participants selected the peers that best fit the

description (unlimited number of choices, but children could not select themselves). Same-sex nominations were used to calculate a participant's score on a given item. Defender, passive bystander, and bully reinforcer status were based on the Participant Role Questionnaire (Salmivalli, et al., 1996). Defending was assessed using 3 items (omega = .80): "Someone who comforts a student who has been bullied," "Someone who tells others to stop bullying," and "Someone who tries to make the others stop bullying." Passive Bystander Behaviour was assessed using 2 items (omega = .78): "Someone who stays out of bullying situations," "Someone who doesn't take sides with anyone during bullying situations." Bully-reinforcing was assessed using 2 items (omega = .78): "Comes around to see a bullying situation and laughs," "Encourages a bully by shouting or cheering." The number of nominations received by each child was adjusted in order to reduce bias due to differences in class size (Velasquez et al., 2013).

Point Scoring Reaction Time Task for Children-Revised (PSRTT-CR; Colder & O'Connor, 2004; Colder, et al., 2011).The PSRTT-CR is a computerized task that was developed in line with the joint subsystems hypothesis (Corr, 2002), and is therefore designed according to the most recent formulation of reinforcement sensitivity theory. During the PSRTT-CR, participants are presented with stimuli on a computer screen that become associated with reward or punishment. The contingency with reward and punishment is based on whether one's response to the stimuli results in the gain or the loss of points. The task involves four experimental blocks presented in a fixed sequence: no reward, reward, punishment, and post-punishment. Each block consists of a series of 50 3-second trials, with each trial presenting a coloured circle above a two-digit odd or even number. Participants are instructed to respond to odd numbers with the '1' key and

to even numbers with the '2' key and are scored based on their response. Scores for a given trial, as well as total scores accumulated across trials were presented at the bottom of the screen.

During all blocks, participants lost two points for incorrect responses. During the reward block, participants had the opportunity to gain points for correct responses, with the number of points dependent upon reaction time (points = 835/RT). While participants had been instructed to ignore the colour of the presented circle during the no reward and reward blocks, they were instructed that responding to green circles during the punishment block would result in a loss of 50% of their accumulated points; all other instructions were as during the reward block. They were also told that for the post-punishment block, they could once again ignore the colour of the circles and that they would lose two points for incorrect responses and gain points based on their reaction time (exactly as during the reward block).

Decrease in reaction time during the reward block versus the no reward block was hypothesized to reflect BAS motivation. The BIS was assessed using reaction times from the post-punishment block, with a decrease in reaction time during green circle trials (punish-cue) relative to non-green circle trials hypothesized to reflect a motivational conflict based on the activation of both the BAS (potential reward of correctly responding to the odd and even number) and the FFFS (sensitivity to punishment learned during the previous block in response to green circles).

The BIS and BAS were computed as standardized residual scores based on children's performance on the PSRTT. For the BAS, the mean reaction time for the no-reward block was entered as the criterion variable and the mean reaction time for the

reward block was entered as the predictor variable; the score was then inversed so that those participants whose responses got fastest during the reward versus no-reward blocks would have the highest BAS scores. For the BIS, mean reaction time for the green circle trials was entered as the criterion and mean reaction time for the non-green circle trials entered as the predictor, with the highest BIS score reflecting the greatest increase in reaction time between punish-cues (green circle trials) and non-punish cues (non-green circle trials). As such, BIS sensitivity was operationalized as an approach-avoidance conflict.

Results

Preliminary Analyses

Given that the BIS and BAS using the PSRTT-CR were only assessed at a single time point, this part of the study employed a concurrent design.

Multiple imputation. Multiple imputation was used to estimate missing data according to the method described by Little and colleagues (2011). Five factor scores were computed using principal components analysis represented 44% of the variance in the original dataset. Missing scores were imputed with the use of the factors scores, sex, age, and classroom as anchor variables in Amelia II (Honaker et al., 2012). Twenty separate imputed data files were created that included all study variables and that were used in the final analyses in Mplus Version 6.0 (Muthen & Muthen, 2010).

BAS activation. BAS activation was measured using the PSRTT-CR (Colder & O'Connor, 2004; Colder, et al., 2011). A related samples *t*-test indicated that reaction times (RTs) decreased during the reward block (M = 908.95 ms, SD = 231.76) compared to the no reward block (M = 1011.95 ms, SD = 295.38); t (129)= -5.98, $p < .05$; Pearson

$r = .75$, $p < .01$. Children's acceleration in responding when reward was introduced suggests the activation of the BAS.

BIS activation. BIS activation was measured using RTs during the post-punishment block of the PSRTT-CR (Colder &O'Connor, 2004; Colder, et al., 2011). A comparison was made between the average RTs to the 5 *green circles* versus average RTs to the 5 *non-green circles* that preceded them. A related samples *t*-test indicated that reaction times increased during the *green circle* trials ($M = 966.61$ ms, $SD = 289.12$) compared to the *non-green circle* trials ($M = 864.41$ ms, $SD = 279.89$); $t\ (129) = 6.36$, $p < .05$; Pearson $r = .79$, $p < .001$. Taking more time to respond to cues that were previously associated with punishment but that had changed to potentially rewarding cues (*green circles)* suggests the activation of the BIS. That is, inhibited responding is presumably due to the processing of conflicting information (i.e., reward versus punishment).

Descriptive statistics and mean differences. The means and standard deviations of the study variables are given in Table 2.1. Several analyses were carried out in IBM SPSS version 19 in order to determine whether there were any mean differences in the study variables as a function of sex and age. Statistical significance was based on an alpha level of .05. For simplicity, observed variables were used in these preliminary analyses (computed as the mean of each individual item using the aggregated scores of the 20 imputed data sets).

A series of independent samples t-tests revealed that girls received more nominations than boys on both peer-reported defending ($t\ (128) = -5.89$, $p < .05$) and passive bystanding ($t\ (128) = -6.78$, $p < .05$). Boys reported higher levels of moral

disengagement (t (128) = 2.90, p <.05) and received more nominations on overt aggression than did girls (t (128) = 3.15, p <.05). Bivariate correlations are given in Table 2.2 for boys and girls separately.

Potential age differences were explored by calculating bivariate correlations between age and the study variables. In general, the older the participant the faster the average reaction time on the PSRTT-CR trials. Older participants were quicker to respond during the Reward block (Pearson r (130) = -.29, p < .05). They were also quicker during the Post-punishment block: average *green* circle trial reaction time (Pearson r (130) = -.38, p < .05) and average *non-green* circle trial reaction time (Pearson r (130) = -.37, p < .05). Finally, the older the participant the stronger the BAS activation: Pearson r (130) = .27, p < .05). Multiple regression analyses with Sex and Age entered on a first step and their interaction on a second step failed to reveal any Sex X Age interactions in the study variables.

Interaction terms. Interaction terms were calculated by first mean centering the BIS and BAS scores, as well as the three indicators representing the latent moral disengagement variable. Next, all two-way and three-way product terms between moral disengagement, the BIS, and the BAS were created by multiplying corresponding centered values. Finally, residual centering (Lance, 1988) was conducted in order to deal with fundamental problems related to interaction terms such as collinearity with first-order predictors (Pedhazur, 1982). This was done by regressing each of the product terms onto their corresponding multipliers (i.e., first order predictors), with interaction terms represented by the resulting residualized scores.

Final Analyses

Structural equation modeling was conducted using Mplus Version 6.0 (Muthen & Muthen, 2010) to test the moderating effect of the BIS and the BAS on the association between moral disengagement and bystander behaviours. All variables aside from sex, the BIS and the BAS were represented using latent variables, with the default settings in MPlus used to establish metrics for the latent constructs.

Unique and interactive effects of moral disengagement and personality in predicting bystander behaviour. Structural equation modeling was used to test the main and interactive effects of moral disengagement and BIS-BAS sensitivity on bystander behaviours. Paths were considered to be significant at the .05 level and trends at the .10 level. The final model was obtained by performing several comparisons that are described below.

Step 1. As a first step, a model containing the main effects of moral disengagement, the BIS, and the BAS on the three bystander behaviours was compared with a model containing interactions among these predictors. The main effects model showed a good fit to the data: $\chi^2_{(41)} = 55.94$, $p > .05$, CFI = .97, RMSEA < .05. A model that also contained all two-way interactions between moral disengagement, the BIS and the BAS also showed a good fit to the data and was not significantly different from the main effects model: $\chi^2_{(115)} = 134.29$, $p > .05$, CFI = .98, RMSEA < .05; $\Delta\chi^2_{(74)} = 78.35$, $p > .05$. Despite the similar strength of these two models, the more informative two-way interactions model was retained for further comparison. This two-way interactions model was compared to a model that also included the Moral Disengagement X BIS X BAS three-way interaction. The three-way interaction model proved to be a poorer fit to the

data, and was therefore abandoned: $\chi^2_{(163)}$ =249.98, $p < .05$, CFI = .92, RMSEA > .05; $\Delta\chi^2_{(48)} = 115.69$, $p < .05$.

Step 2. As a second step, the effect of sex, aggression, and victimization were explored as covariates of the bystander behaviours. This was done by running a series of models that included all main and two-way interactive effects of the moral and personality variables, and that tested all combinations of the three covariates. Compared with the no-covariates two-way interactions model described in step 1, a model that included sex as a covariate had a significantly poorer fit to the data: $\chi^2_{(125)}$ =153.38, $p <$ .05, CFI = .97, RMSEA > .05; $\Delta\chi^2_{(10)} = 19.09$, $p < .05$. In contrast, controlling for aggression and victimization produced a model that had just as strong a fit to the data as the no-covariates model: $\chi^2_{(196)}$ =204.61, $p > .05$, CFI = .99, RMSEA < .05; $\Delta\chi^2_{(81)} =$ 70.32, $p > .05$. Note that the third item for victimization was dropped due to its strong overlap with aggression, and the significantly poorer fit to the data that was produced with its inclusion. It was especially important to control for the effect of aggression on bully reinforcing as doing so changed the pattern of results. BAS sensitivity was a significant predictor of bully reinforcing in a model that controlled for aggression ($\beta =$ .12, $p < .05$, one-tailed; β = .06, p = n.s, without controlling for aggression). Also, the predictive effect of Moral Disengagement x BIS on bully reinforcing did not reach significance in a model that controlled for aggression ($\beta = .06$, p = n.s.; $\beta = .37$, $p < .05$ without controlling for aggression). Next, the predictive effect of BIS x BAS on reinforcing weakened to a trend by controlling for aggression ($\beta = .11$, $p < .10$, one-tailed test; $\beta = 28$, $p < .05$ without controlling for aggression).

Step 3. As a third and final step, the models were tested separately for boys and for girls in a series of multiple group models. Due to the scarcity of research in this area, no sex differences were hypothesized for any of the paths in the model. The unconstrained multiple group model (boys versus girls) was a good fit to the data and did not differ significantly from the full sample model: $\chi^2_{(418)}$ =430.33, $p > .05$, CFI = .99, RMSEA < .05; $\Delta\chi^2_{(222)} = 225.72$, $p > .05$. The data were then analyzed by constraining all paths to be equal for boys and for girls: $\chi^2_{(446)} = 469.15$, $p > .05$, CFI = .98, RMSEA < .05. Although the fit of this fully constrained multiple group model was just as strong as the fit of the total sample model, it tended to be a weaker fit to the data than the unconstrained multiple group model, suggesting that boys and girls may differ on certain paths: $\Delta\chi^2_{(28)} = 38.82$, $p < .10$. Continued exploration revealed that constraining two paths in particular produced a weaker fit to the data than did the unconstrained multiple group model: (1) the main effect of moral disengagement on passive bystanding ($\chi^2_{(419)}$ = 435.88, $p > .05$, CFI = .99, RMSEA < .05; $\Delta\chi^2_{(1)} = 5.55$, $p < .05$) and (2) the main effect of BIS on passive bystanding ($\chi^2_{(419)} = 453.71$, $p > .05$, CFI = .97, RMSEA < .05; $\Delta\chi^2_{(1)}$ = 23.38, $p < .05$). Given that no other sex differences were found, the total sample model (that included aggression and victimization as covariates) was retained as the final model, although sex differences on the two main effects paths are highlighted in Figure 2.1, which gives the standardized path coefficients for the final model. For greater clarity, correlations are given in Table 2.4. Significant trends are reported as they provide information about the overall pattern of findings. One-tailed tests were considered to be acceptable if the expected direction of effect was specified a priori.

As seen in Figure 2.1, there were several main effects in the expected directions: higher levels of BAS predicted higher bully reinforcing, higher levels of BIS predicted lower defending and higher passive bystanding, and higher moral disengagement predicted lower levels of defending behaviour. Beyond these main effects, several two-interactions were also found. As expected, the BIS made it more likely that higher moral disengagement would be related to lower defending (see Figure 2.2). The inverse expectation that the BIS would made it more likely that higher moral disengagement would be related to higher bully reinforcing was only met in a model that did not control for aggression (as explained above). In the final model that included aggression as a covariate, the BIS instead moderated the association between moral disengagement and aggression, which is in line with the main hypotheses of the study (see Figure 2.3). The interactive effect of Moral Disengagement x BAS on defending and bully reinforcing are illustrated in Figures 2.4 and 2.5, respectively. Both are in the expected direction of the BAS increasing the likelihood of defending in those lowest on moral disengagement, while increasing the likelihood of bully reinforcing in those who are most morally disengaged. As shown in Figures 2.6 and 2.7, the BIS and the BAS interacted to predict defending and bully reinforcing such that higher BIS children were more likely to engage in these behaviours if they were also higher on BAS. Finally, the exploration of a Moral Disengagement x BIS interaction in predicting passive bystanding revealed that the BIS made the association between moral disengagement and passive bystanding more negative. This interaction is plotted separately for boys and for girls to facilitate interpretation in light of sex differences found in the association between moral

disengagement and passive bystanding noted earlier (see Figure 2.8 for boys and Figure 2.9 for girls).

It is important to note that age and accuracy on the PSRTT-CR were originally included as control variables, but were not retained in the final model because they did not produce any significant effects on the bystander behaviours.

Discussion

What determines which behaviour a child adopts when witnessing a bullying episode? The current investigation has shown that bystander behaviour depends on a combination of a child's personality and his or her moral cognitions. The central hypothesis was that children's sensitivity to behavioural activation and inhibition would predict whether they approach or avoid bullying situations, and that moral disengagement strategies would predict which form of approach behaviour might be most motivating (i.e., defending or bully reinforcing). Taken together, the findings obtained provided partial support for hypotheses derived from both reinforcement sensitivity theory (Gray & McNaughton, 2000) and the socio-cognitive theory of moral agency (Bandura, 1999).

Active Bystander Behaviours: Defending and Bully Reinforcing

As hypothesized, moral disengagement inhibited defending, but only in those who were high on the BIS. Similarly, moral disengagement increased the likelihood of bully reinforcing, but only in those who were high on the BIS. The latter was only detected in a model that did not control for aggression. With the inclusion of aggression in the model, the effect observed for bully reinforcing was subdued and observed instead for aggression, suggesting the potential moderating role of aggression on bully reinforcing. The findings for aggression are in line with one of the main hypotheses of the study:

essentially, children appear to be motivated to behave in line with their moral code, especially if they are BIS sensitive. It may be the case that conflicting goals are not perceived in bullying situations for those who are at the extremes of the moral disengagement scale, thus reducing the otherwise inhibitory effect of the BIS. In other words, high BIS children may know what is "right" or "wrong" for them to do and may have developed a tendency to engage in approach behaviours in such situations due to learned associations with positive consequences. This interpretation is in line with the tenets of reinforcement sensitivity theory and the socio-cognitive theory of moral agency, both of which make fundamental references to learning processes (e.g., Eysenck, 1967; Bandura, 1977). Of course the current study was limited by its concurrent design and future studies that examine over-time effects are necessary to track the development of bystander behaviours as a function of moral cognitions and personality.

Interestingly, similar levels of defending were observed in low BIS-sensitive children regardless of level of moral disengagement. The motivation for defending in children who justify aggression is unclear and requires further study of other potential moderators. For instance, the form of defending (e.g., aggressive versus non-aggressive defending) may need to be considered (Rubinstein, 2005), or perhaps the relationship between the moral agent and the child in need of help (Bukowski & Sippola, 1996). What is clear however, is that the association between moral disengagement and both defending and aggression disappears for children who are low on the BIS, suggesting that BIS sensitivity provides a way of keeping one's behaviour consonant with one's moral cognitions, for better or for worse.

In terms of behavioural activation, as expected higher BAS-sensitivity amplified defending in those *lowest* on moral disengagement. The BAS also tended to amplify bully reinforcing in those *highest* on moral disengagement, even after controlling for aggression. This result suggests that, similar to the BIS, the BAS activates behaviour that is most in line with one's moral cognitions. Behaviours that are aligned with moral cognitions may be the most rewarding, especially for children who are high on the BAS. Indeed, for children who were least reward responsive as gauged by a low BAS, the association between moral disengagement and defending disappeared, indicating that moral thought alone may not be sufficient to motivate defending behaviour (e.g., Caravita, Gini, & Pozzoli, 2012).

A similar argument may be made for bully reinforcing in that the expression of moral thought in this group of bystanders may depend on motivational factors related to personality. In a model that controlled for aggression, the main effect of moral disengagement on bully reinforcing disappeared, yet a trend level interactive effect of Moral Disengagement x BAS remained. In contrast, aggression was positively associated with moral disengagement and not related to the BAS, highlighting the unique predictive power of moral cognitions on aggressive behaviour. The finding that bully reinforcing behaviour is manifested in those who legitimize harmful behaviour only if they are high on the BAS, while aggressive children are higher on moral disengagement independent of BAS-sensitivity points toward potential heterogeneity in bully reinforcing behaviour: aggressive versus non-aggressive forms. Non-aggressive bully reinforcers (a minority in our sample) may require a high BAS to manifest their morally disengaged cognitions (i.e., through behaviours such as cheering bullies rather than doing the bullying

themselves). With the strong overlap between bully reinforcing and aggression found in our moderately-sized sample, it is not possible to fully explore differences between highly aggressive bully reinforcers and less aggressive bully reinforcers. Once again, future studies that include aggression as a moderator are essential to teasing apart its effect on bystander behaviours, especially different forms of defending and different forms of bully-reinforcing.

Finally, there was a trend-level interaction between the BIS and the BAS in predicting both defending and bully reinforcing, thus validating the importance of considering the combined influence of both dimensions of personality (Corr, 2002; Kingsbury et al., 2013; Wardell et al., 2011). It appears that children who are high on the BIS, and presumably most inhibited in conflict-laden situations, may also need to be high on the BAS in order to engage in more active bystander behaviours. The assumption is that these children must find defending, or alternatively bully reinforcing to be especially rewarding for their BAS to override the inhibitory effect of the FFFS that is associated with higher BIS sensitivity. Interestingly, those low on the BIS showed similar levels of defending regardless of their BAS. The reason for defending in this group of children is unclear, other than the fact that they are not inhibited by BIS sensitivity. Future studies with greater statistical power may reveal a three-way interaction between moral disengagement, the BIS, and the BAS that was not detected in the current study. The expectation is that the behavioural manifestation of one's moral cognitions (i.e., prosociality versus aggression) will be moderated by a combined effect of the BIS and the BAS.

Passive Bystanding

The current study also allowed for important conclusions with regard to passive bystander behaviour as operationalized using peer nomination items from the outsider scale of the Participant Role Questionnaire (Salmivalli et al., 1996). The findings were quite compelling in emphasizing the complexity of bystander behaviour, and the possible short-sightedness of viewing bystanders as lacking moral agency. As expected, children who displayed more passive bystanding were found to have a higher BIS, thus highlighting the role of personality in shaping avoidant behaviour (this effect was strongest in girls). Furthermore, moral disengagement had a significant main effect on passive bystanding, with boys and girls displaying a reverse pattern: boys were *less* likely to be perceived as passive bystanders at higher levels of moral disengagement (similar to the pattern expected of prosocial behaviour) while girls were *more* likely to be perceived as passive bystanders at higher levels of moral disengagement (a pattern expected of non-prosocial behaviour). This finding may be related to gender stereotypes (e.g., Maccoby & Jacklin, 1987) that likely generate a double standard for bystander behaviour with girls being held to a higher prosocial norm. The existence of different gender ideals for passive bystanding is in line with a recent study concluding that moral action in school children who witness peers in distress is dictated by conformity to a set of moral frames, including the "gentle caring-girl" frame that reflects a greater expectation for girls to be nicer and more caregiving than boys (Thornberg, 2010). As such, it is not surprising that passive bystanding overlaps with self-reported moral *engagement* in boys and moral *disengagement* in girls.

Beyond the main effects of the BIS and moral disengagement, a significant interaction was found between moral disengagement and the BIS that was equally valid for boys and for girls: the association between moral disengagement and passive bystanding was observed to become more negative at higher levels of BIS. Variability in passive bystanding as a function of the BIS was most evident for children who were morally engaged. It is not clear why moral engagement in high BIS children is related to both greater passive bystanding and greater defending behaviour. It may be the case that there is heterogeneity in morally engaged children who are also BIS sensitive. Although children in this group may be equally prone to detecting conflicting goals in bullying situations, they may differ in terms of how they resolve those conflicts: some may be driven by the BAS that activates more defending and less passive bystanding, while others may be driven by the FFFS and therefore respond with greater passivity. In other words, some morally engaged and high BIS children may choose to remain outside the bullying situation, not due to anxious responding rather due to prior learning and reflection about the best course of action for the victim (and themselves). In contrast, other high BIS and morally engaged children may have learned to defend, perhaps due to previous successful interventions and a greater sense of self-efficacy as defenders (Pöyhönen & Salmivalli, 2008; Pöyhönen et al., 2010; Thornberg & Jungert, 2013). Such a possibility has important implications for training defender behaviour in passive bystanders in a way that better matches their disposition (e.g., encourage private forms of peer intervention such as befriending and comforting, in addition to more public and direct forms of defending). This suggestion is in line with previous recommendations to socialize safe defending strategies (Salmivalli, 2010).

Another interpretation stems from the significant positive overlap that emerged between defending and passive bystanding independent of the main and interactive effects. Basically, some children have gained the reputation among their peers of engaging in both bystander behaviours. This possibility further supports the conclusion that children who refrain from defending their victimized peers in favor of taking on a passive bystander role are not necessarily lacking in moral character. Determining the different circumstances under which the same child engages in different bystander behaviours merits further study (e.g., the social status of the victim, the relationship between the bystander and the victim or bully).

Conclusions

Understanding the predictors of bystander behaviours during bullying situations is critical to identifying ways of recruiting peer defenders. The current study applied a design that was sensitive to multiple biopsychosocial systems influencing bystanders during complex bullying situations and has provided nuanced information for interventions aimed at reducing school bullying. Findings point toward heterogeneity in morally engaged children in relation to fundamental personality traits. Specifically, moral engagement was found to be related to both higher passivity and higher defending in children who are BIS sensitive, and also to higher defending in BAS sensitive children. On the flip side, a higher BAS was found to enhance bully-reinforcing in morally disengaged children. It seems then that moral cognitions, personality, and behaviours are aligned. Importantly, the finding that children's passivity was related to personality traits that inhibit the manifestation of prosocial thought suggests that even the most inhibited children may be recruited as defenders if they receive specialized training to defend in a

way that matches their personality. Moreover, given the parallels between the pattern of findings for defenders and bully reinforcers, the mechanisms that underlie these clearly distinct bystander behaviours may be quite similar. This implies that interventions that target the morally disengaged cognitions of bully reinforcers may result in alternative behavioural expressions of their personality traits – traits that bully reinforcers share with some defenders (e.g., a high BAS). This important and growing area of research may be furthered by studies that track the developmental trajectory of bystander behaviours in relation to morality and personality and that investigate the moderating effect of factors such as aggression and gender, as well as contextual factors such as the relationship between bystander and victim. The study presented in the following chapter elaborates on one of these directions by investigating the role of friendship in moderating the association between moral disengagement and defending behaviour.

Table 2.1. Descriptive statistics for the study variables for boys and for girls.

	Boys (n = 68)				Girls (n = 62)		
	Mean (SD)	Min	Max		Mean (SD)	Min	Max
Age_years	11.28 (0.75)	9.47	13.61		11.44 (0.62)	10.03	12.95
Moral Disengagement	2.27 (0.79)	1.00	4.73	*	1.91 (0.56)	1.00	3.00
BIS[a]	-.02 (.79)	-2.43	1.55		-.01 (1.11)	-2.16	3.02
BAS[b]	-.04 (1.01)	-3.34	2.21		.10 (.75)	-2.29	1.93
Defending	.95 (.86)	-.01	3.82	*	1.94 (1.06)	-.01	4.17
Passive Bystanding	.82 (.74)	-.01	3.03	*	1.97 (1.18)	.04	4.75
Reinforcing	.48 (.66)	.00	2.61		.32 (.55)	.00	2.65
Bullying	.71 (.96)	.00	3.77	*	.28 (.51)	.00	3.21
Victimization	.55 (.53)	.02	2.44		.46 (.67)	.00	3.86
Reward Block RT	926 (255)	477	1844		895 (210)	555	1437
No Reward Block RT	1009 (305)	566	2385		1007 (287)	575	1859
Punish cue RT[c]	964 (278)	399	1823		978 (245)	425	1675
Pre-punish cue RT[d]	862 (300)	393	1770		879 (275)	378	1730

*Significant sex difference based on an independent samples t-test ($p < .05$).

[a]Standardized residual scores (No Reward RT predicting Reward RT; inversed),

[b]Standardized residual scores (Pre-punish cue RT predicting Punish cue RT during the Post-punishment block), [c] Mean RT to *green circle* trials during the Post-punishment block, [d] Mean RT to trials preceding *green circle* trials during the Post-punishment block.

Table 2.2. Pearson zero-order correlation coefficients for boys (below the diagonal) and for girls (above the diagonal).

	1	2	3	4	5	6	7	8	9
1.Age	–	-.01	-.19	.23	.03	-.07	-.02	.06	.04
2. Moral Disengagement	-.01	–	-.02	.10	-.19	.24*	-.10	-.22	.00
3. BIS	-.07	.32**	–	-.11	-.17	.42**	-.22	-.18	-.25
4. BAS	.28*	-.26*	-.13	–	.36**	.21	-.25	-.31*	-.04
5. Defending	-.09	-.26*	-.23	.09	–	.00	-.40**	-.41**	-.43**
6. Passive Bystanding	-.15	-.16	.11	-.28*	.17	–	-.15	-.20	-.13
7. Bully-Reinforcing	.17	.08	.08	.12	-.26*	-.24 *	–	.81**	.40**
8. Overt Aggression	.05	.16	.16	-.07	-.30*	-.15	.75**	–	.42**
9. Victimization	-.13	-.09	.05	-.13	-.26*	.14	.45**	.44**	–

Notes: ** $p < .01$; * $p < .05$

Figure 2.1. Standardized path coefficients of the final path model

$\chi^2_{(196)} = 204.61$, $p > .05$, CFI = .99, RMSEA < .05. Solid paths, $p < .05$; dashed paths, $p < .10$.

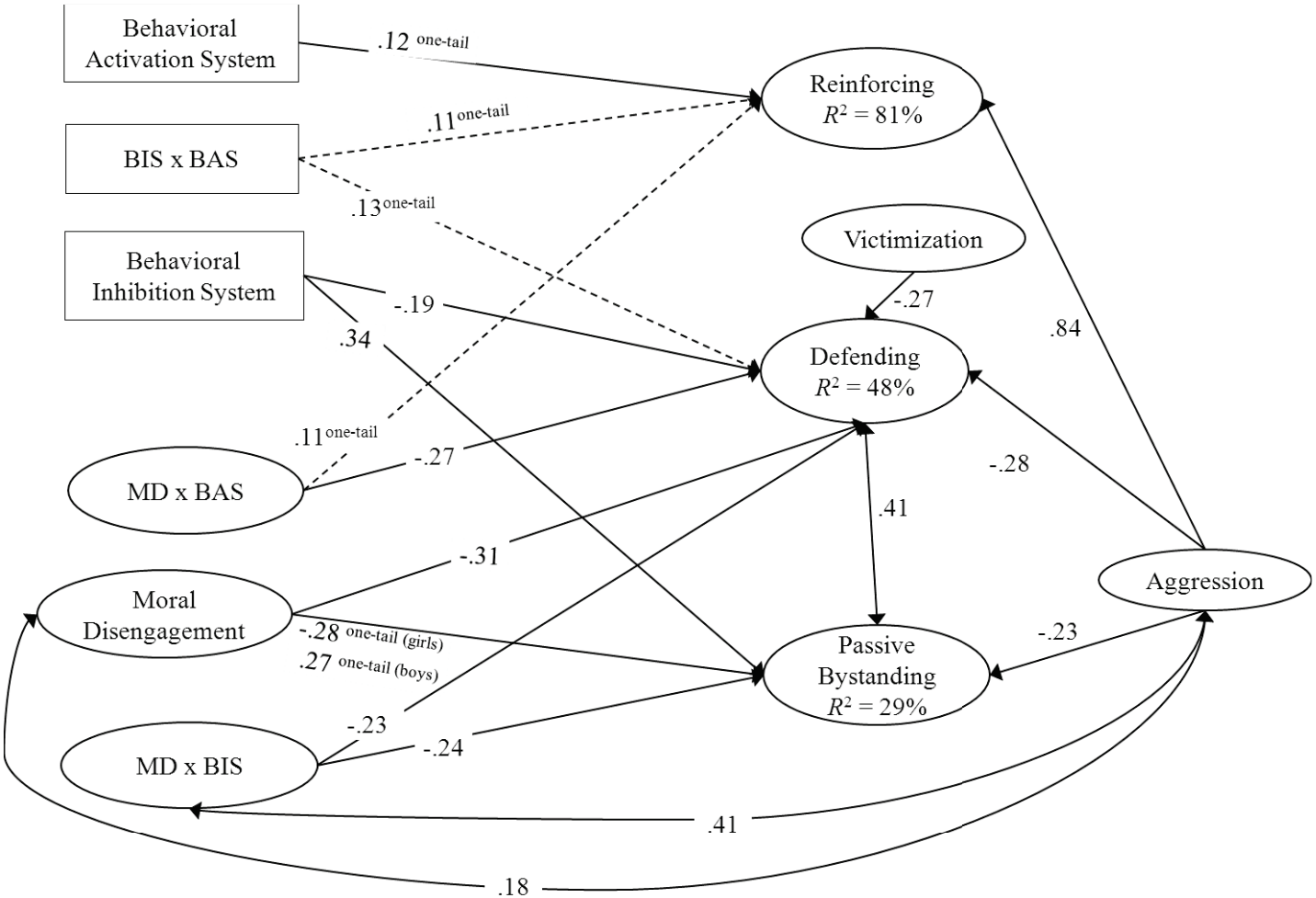


Table 2.3. Significant correlations in the final path model.

Standardized path coefficients.

Correlated variables	
Defending ↔ Passive Bystanding	.41 *
Moral Disengagement ↔ Aggression	.18 *
Moral Disengagement ↔BISXBAS	-.24 *
BAS ↔ Moral Disengagement XBIS	-.20 *
Aggression ↔ Moral Disengagement XBIS	.41 *
Moral Disengagement XBAS↔ Moral Disengagement XBIS	-.25 *
Moral Disengagement XBAS↔BISXBAS	.45 *

Note: * $p < .05$

Figure 2.2. **Moral Disengagement X BIS on defending**

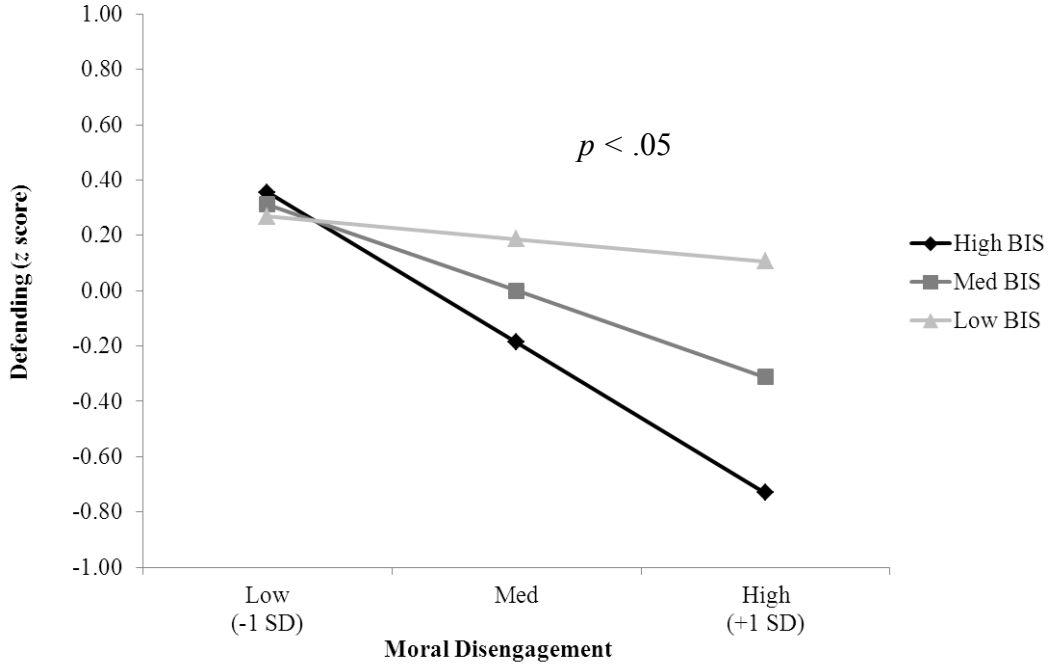


Figure 2.3. **Moral Disengagement X BIS on aggression**

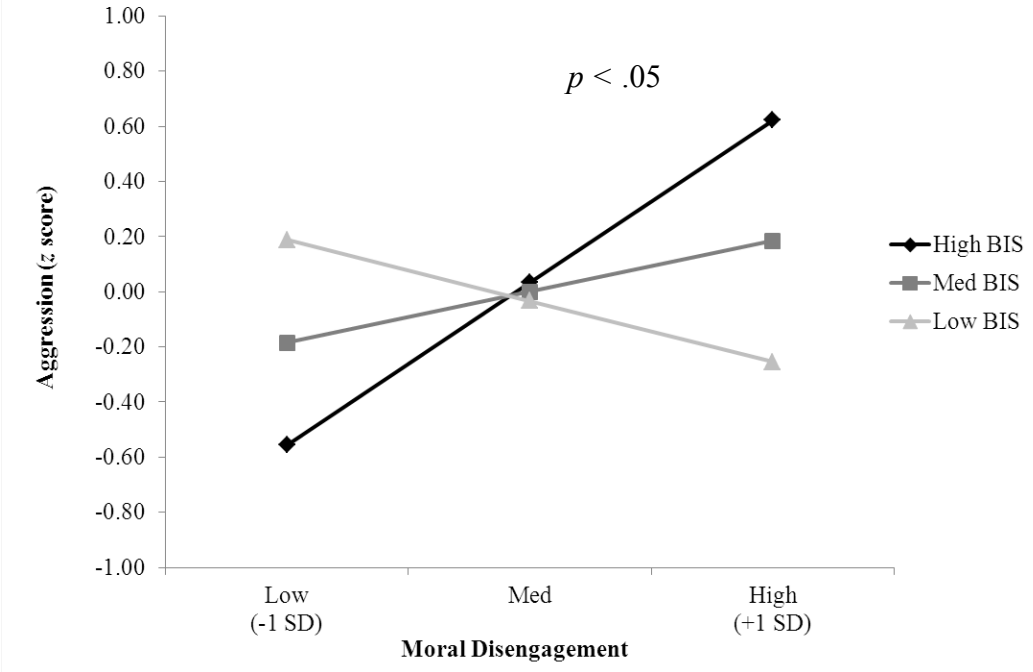


Figure 2.4. **Moral Disengagement X BAS on defending**

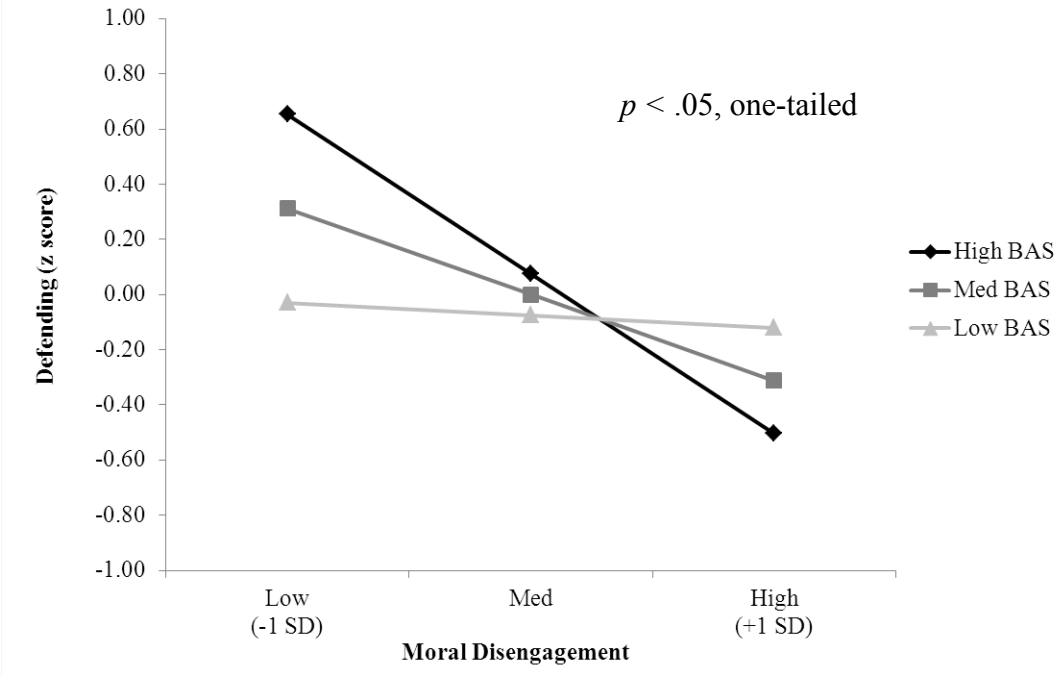


Figure 2.5. **Moral Disengagement X BAS on bully reinforcing**

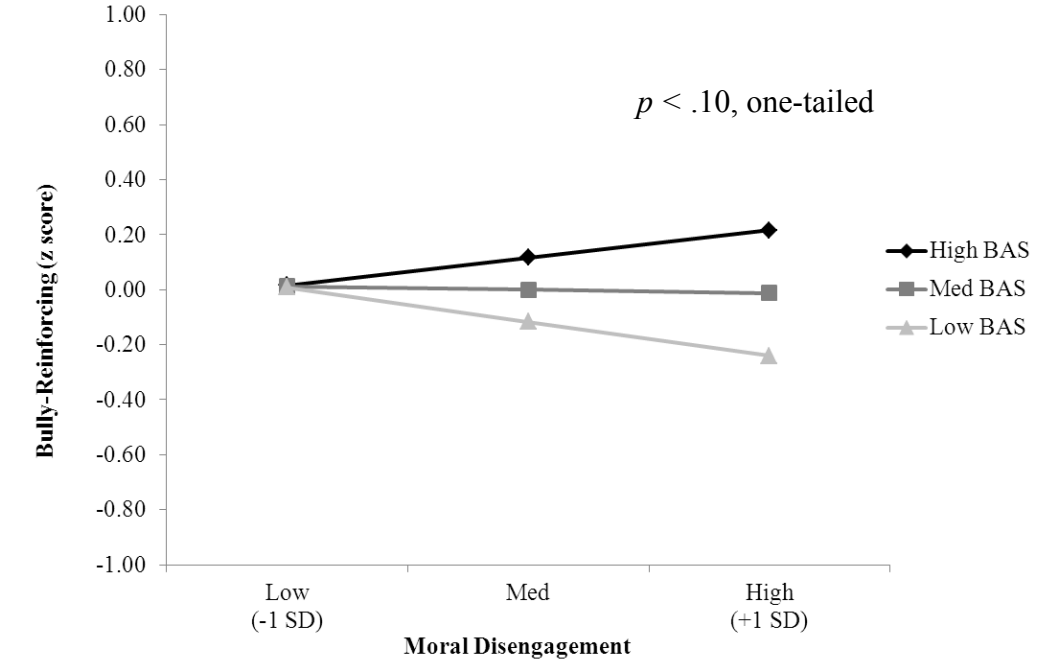


Figure 2.6. **BIS X BAS on defending**

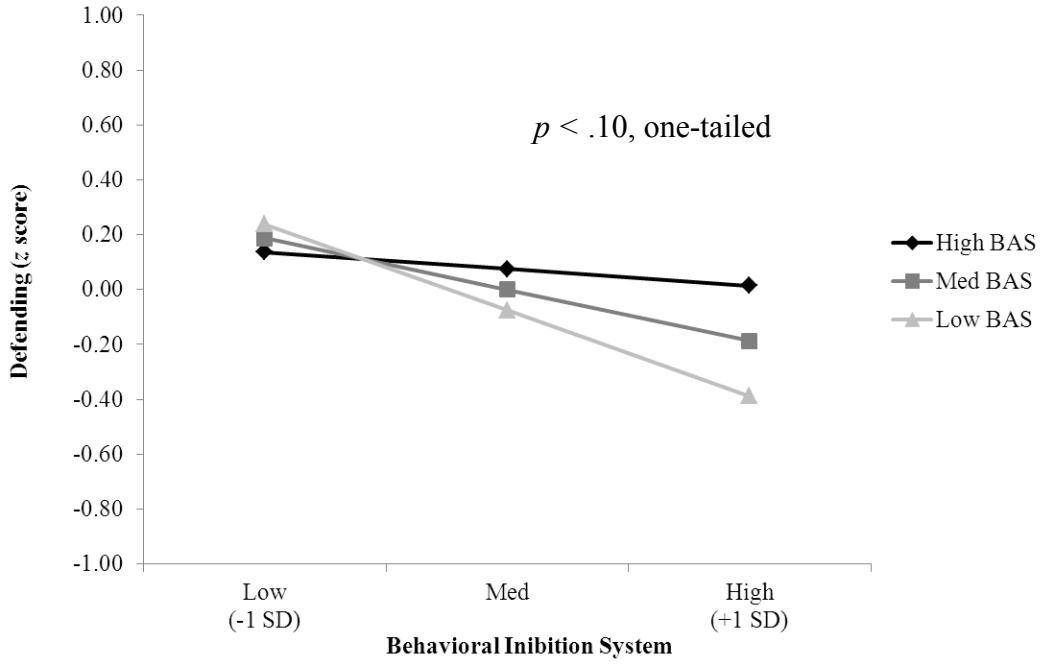


Figure 2.7. **BIS X BAS on bully reinforcing**

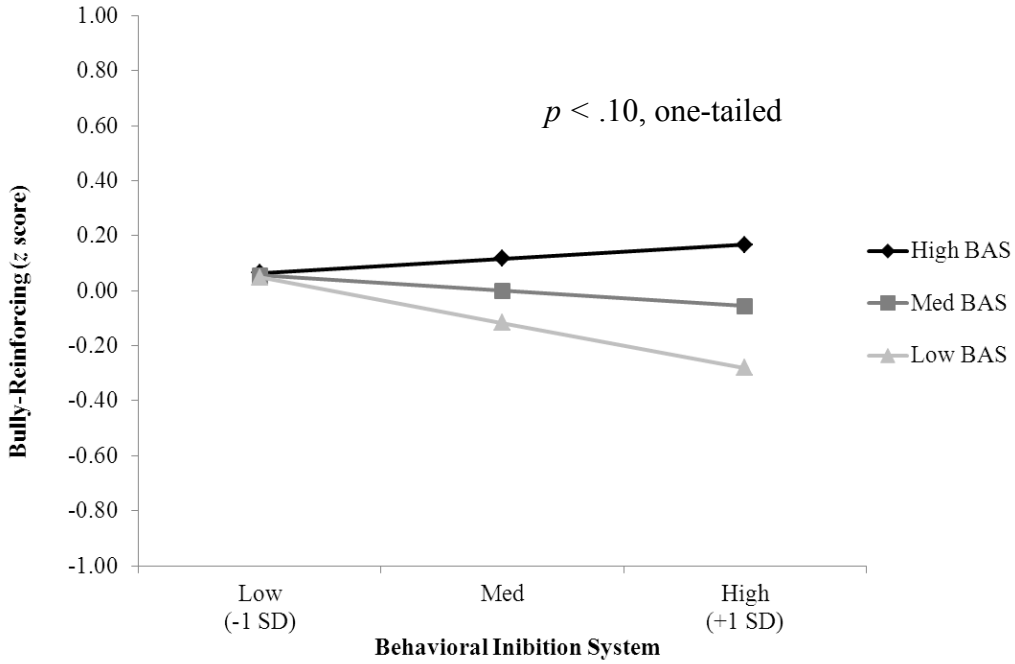


Figure 2.8. **Moral Disengagement X BIS on boys' passive bystanding**

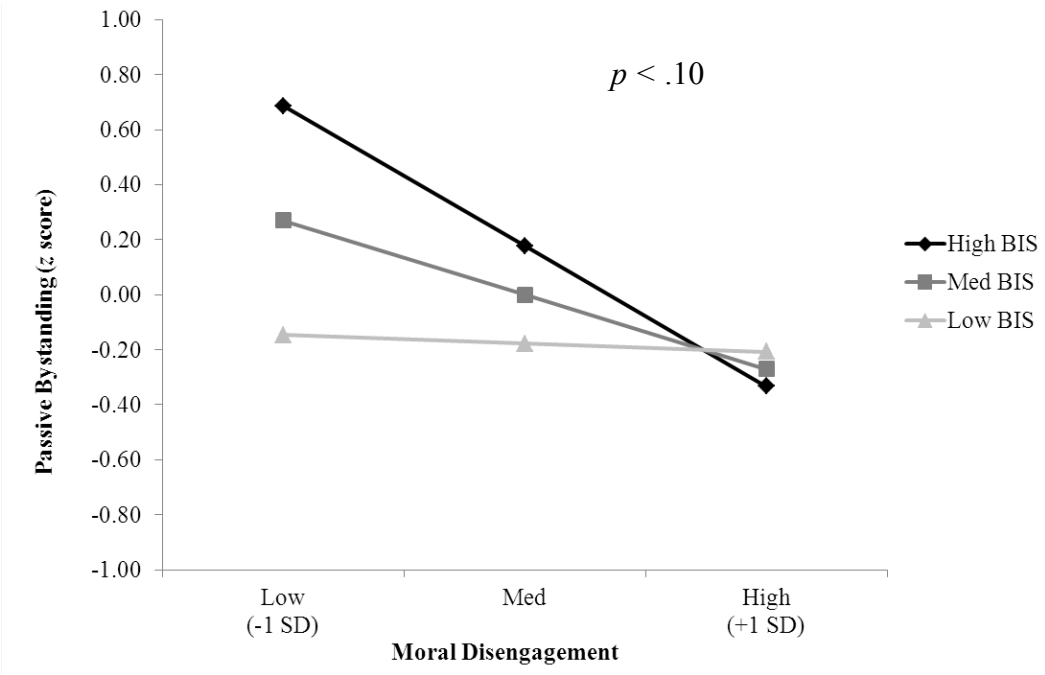
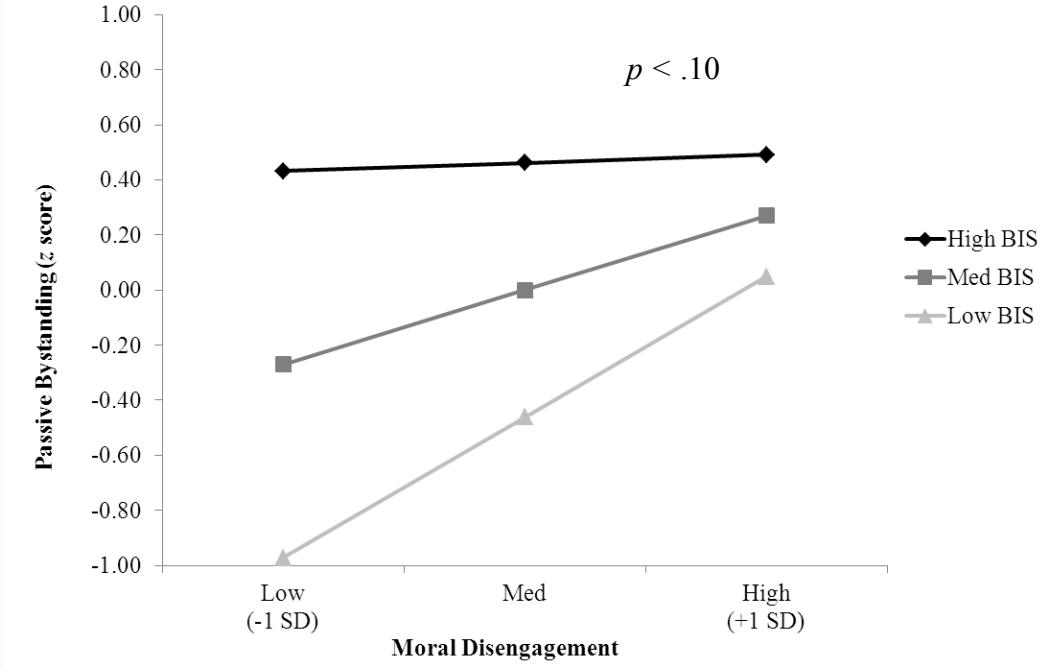


Figure 2.9. **Moral Disengagement X BIS on girls' passive bystanding**



Chapter 3: How Victimized is my Best Friend? Friendship Motives Counteract the Inhibitory Effect of Moral Disengagement on Defending Behaviour

Bullying is a form of aggression that accrues or loses power for the bully as a function of bystander behaviours (Salmivalli et al., 1996). In spite of the present concern with identifying the individual and environmental factors that shape bystander behaviours during bullying situations, there has been remarkably little emphasis on understanding the role of the relationship between a bystander and a victim. In other words, within the group context there may be critical interpersonal contexts that influence individual bystander action. The current study aimed to address this issue by investigating the effect of friendship on defending behaviour. The study examined whether children would increase their defending behaviour in accordance with the victimization level of their best friend, and whether such friendship motives would override the inhibitory forces of moral disengagement.

The Need for Defenders

Student bystanders are critical players in the occurrence, frequency, and severity of school bullying (Lagerspetz et al., 1982; Salmivalli et al., 1996; Craig & Pepler, 1997). Researchers have demonstrated that bystanders are often present in large proportions during bullying episodes and that they participate in the bullying process by taking on different roles that can either diminish or exacerbate bullying behaviour. Even those bystanders who behave in seemingly harmless and passive ways may influence the bullying process.

In recent years, there has been increasing interest in understanding defending behaviour. Defenders are the more active bystanders who take on a prosocial role. They

may step in to support victims in very public ways such as directly standing up to aggressors, but they may also help by comforting and befriending victims after a harmful incident. The reason why there has been interest in defending behaviour is because defenders have been found to be important on multiple levels. Their impact at the group level has been demonstrated by the lower frequency of bullying in classrooms with more defending (Salmivalli et al., 2011). These classroom effects seem to trickle down to the level of individual victims with evidence that high risk children such as those who are socially anxious or rejected by peers have a lower likelihood of being victimized in classrooms with higher levels of defending, and also in classrooms with lower levels of bully-reinforcement (Kärnä, Voeten, Poskiparta, & Salmivalli, 2010). Finally, studies that have examined dyadic relationships have found that being defended is positively associated with victims' self-esteem and social status (Sainio, Veenstra, Huitsing, & Salmivalli, 2011) and that having a reciprocated friendship buffers victimized children from increased internalizing and externalizing behaviours (Hodges, Boivin, Vitaro, & Bukowski, 1999). This last point speaks to dyadic processes outlined in interpersonal theories that suggest that positive experiences with peers, especially intimate friendships can provide a protective experience that minimizes the damage done in other interpersonal contexts (Sullivan, 1953). For a victim, this correction may occur due to a sense of being worthy enough for someone to stick up for them or to befriend them. Despite increasing knowledge into the correlates and benefits of defending, there still remains a need to identify specific factors that contribute to the defense of victims, and to examine these effects over time.

The Morality of Bullying and Bystanding

Bullying has been conceptualized along moral parameters (Arsenio & Lemerise, 2001), and its unjust nature is clear by its definition as an intentional act of harm by a relatively more powerful perpetrator toward a more vulnerable victim. Bandura and colleagues' socio-cognitive theory of moral agency (Bandura et al., 1996) provides an explanation for why moral agency may become inhibited in morally compelling situations such as bullying. The theory defines the construct of moral disengagement as a cognitive strategy involving the legitimization of harmful behaviour in situations when one has violated, or anticipates violating one's generally-held moral standards. This results in the selective inhibition of moral emotions and disregard for moral self-censures that would otherwise function to motivate prosocial behaviour, or at least some form of reparation if harm has already been done. Instead, individuals feel justified and motivated for aggressive behaviour, or in the case of bystanders, are tolerant of other's aggression. As expected by the theory, moral disengagement has been found to be a reliable correlate of bullying behaviour (e.g., Menesini et al., 2003; Hymel et al., 2005) with increasing evidence of its predictive effect on bullying (Barchia & Bussey, 2011a) and on more general forms of aggression (Paciello et al., 2008).

What About Prosocial Behaviour?

Although Bandura's framework has enhanced our understanding of aggressive behaviour and bullying in youth, a significant aspect of his theory that has remained largely neglected is the power of moral *en*gagement to motivate prosocial behaviour. According to the theory, moral disengagement is unnecessary in those who are morally agentive, suggesting a negative association between moral disengagement and prosocial

behaviour. Along these lines, a handful of studies have highlighted that lower levels of moral disengagement are related to defending behaviour. Specifically, there is evidence of a small but significant negative correlation between moral disengagement and defending (e.g., Caravita, Gini, & Pozzoli, 2012; Gini, 2006). Moral disengagement has also been found to differentiate defenders from bullies (e.g., Gini, 2006; Menesini et al., 2003; Gini et al., 2011). However, one published longitudinal study investigating this link did not find a significant association in a model containing several covariates. Instead it showed that that empathy and collective efficacy beliefs (i.e., beliefs about school-wide efforts and ability to stop aggression) explained variance in defending behaviour over time (Barchia & Bussey, 2011b). This finding raises questions about the factors that may strengthen or weaken the association between moral disengagement and defending.

The Friendship Context

One factor that may account for variability in defending behaviour, as well as variability in the association between moral disengagement and defending, is the relationship between a bystander and a victim. While friendship is recognized as a critical context for development in childhood (Bukowski, Motzoi, & Meyer, 2009), its relation to morality has received surprisingly little empirical attention by social scientists. Bukowski and Sippola (1996) argue that morality has important interpersonal components and that friendship, in particular, may serve as a context for moral development. For instance, within the context of friendship, children learn important moral lessons about responsibility, benevolence, and trust, with these lessons sometimes assimilated as a consequence of breaking moral rules (e.g., betrayal). Friends also serve as moral models or reinforcers as suggested by the findings of a recent study where moral disengagement

in early adolescents was shown to change over time to match ones friend's level of moral disengagement (Caravita, Sijtsema, Rambaran, & Gini, 2013). Another study found that a child's reciprocal best friend's bullying attitudes and sense of responsibility to intervene in favour victims predicts the child's levels on these measures (Pozzoli & Gini, 2013).

Although morality may develop within the context of friendship, friendship motives may give rise to partiality or favoritism toward friends versus non-friends (Keller, 2004a; Hoffman, 2000). In other words, moral obligations motivated by concern for a friend may at times take precedence over more general moral duties to others, pointing toward the importance of considering particularity in moral behaviour and judgment. This contextual nature of morality emerges in multiple lines of theory and research. It can be seen in conceptualizations of morality according to an ethic of care (Gilligan, 1982) in contrast to the universalism emphasized in an ethic of justice (Kohlberg, 1976). More specifically, the relational context of moral cognitions is supported by studies that have demonstrated that moral evaluations, judgments, and emotions regarding moral situations are influenced by social closeness (Linke, 2012). Moreover, research on empathy, which is theorized to be a root of morality has highlighted that empathic responsiveness is subject to contextual modulation, influenced by such factors as familiarity and similarity between empathizer and target (de Vignemont & Singer, 2006; Eisenberg & Strayer, 1987).

More specific to the subject of friendship and morality, there is evidence that children's moral judgments of a transgression depend on whether or not a friend is implicated (Blum, 1980; Slomkowski & Killen 1992). Furthermore, the degree of interpersonal biases in moral reasoning has been found to vary cross-culturally in

accordance with culture-specific functions and definitions of friendship (Keller, 2004b; Keller, Edelstein, Schmidt, Fang, & Fang, 1998). For instance, when presented with a friendship dilemma involving the choice between keeping a promise to a best friend or accepting an interesting invitation from a new child in the class, Chinese children articulated the moral quality of close friendships as well as a tight connection between friends and society (Keller et al., 1998). This pattern corresponded to Chinese children's tendency to be more altruistic toward the new child compared to Western children, who in turn were more likely to emphasize promise-keeping motives and friendship quality. Importantly, developmental differences were noted with close friendships becoming equally important across cultures during adolescence.

Based on the foregoing review, it seems that children may have a separate moral code for friends and non-friends, particularly as they enter adolescence. This difference may be manifested behaviourally as different helping responses, which in a bullying situation may involve motivation to help a specific friend even though the child may have a dampened sense of moral obligation toward others due to the inhibitory forces of moral disengagement.

Objective and Hypotheses

The principal hypothesis of the current study was that defending behaviour would depend on both moral disengagement and on the level of need of one's best friend (as gauged by how victimized he or she is). The hypothesized negative association between defending and moral disengagement was expected to be weaker for children with a best friend who was higher on peer victimization. In other words, the likelihood that moral disengagement would predict decreased defending was expected to be strongest in those

children who do not have best friends who are victimized. For children with victimized best friends, moral disengagement was expected to have less of an influence on changes in defending behaviour. As such, morally disengaged children's defending was expected to be more dependent on whether or not they have a victimized best friend as compared with the defending behaviour of morally engaged children, which was expected to be more impartial. Aggression was included in analyses in order to uncover unique effects of moral disengagement and best friend victimization on defending behaviour. Sex differences were also explored.

Method

Participants

The sample consisted of 130 boys (n = 68) and girls (n = 62) averaging 11.36 years of age (SD = .69; range: 9.47 – 13.61 years) drawn from the fourth, fifth, and sixth grades of two English-language public schools in a Canadian city. Prior to beginning the data collection, parental consent, children's assent, and permission from the teachers and all relevant school-related boards and personnel were obtained. The majority of participants and their parents (>70%) were born in Canada with most children reporting to speak English at home (66%), with the rest reporting to speak French and/or another language. A diverse response set was provided by children with regard to ethnicity and by parents with regard to socioeconomic status.

Procedure

Data for the current study was obtained from two time points in January and May-June 2012 (4 months apart). Nine percent of the original sample was not present during the final data collection due to various reasons (e.g., illness, out of town). There were no

differences in gender or age between the group of absent children and those who were present during the last time point. Missing data were handled using multiple imputation (as explained in the Results section). Netbook computers were used to administer self-report and peer-report questionnaires programmed using Inquisit 3.0 (Seattle, WA: Millisecond Software), providing several methodological advantages over traditional paper and pencil methods (Van den Berg & Cillessen, 2013). Participants received school supplies and a t-shirt as remuneration for being in the study.

Measures

Moral Disengagement. The measure of moral disengagement was based on the Mechanisms of Moral Disengagement Scale (Bandura et al., 1996). Participants were asked to rate their degree of agreement to 12 statements on a five-point Likert scale (1 = strongly disagree to 5 = strongly agree). This abridged scale captured the four broad dimensions of the larger measure: restructuring immoral behaviour (3 items, e.g., "It is okay to insult a classmate because hitting him or her would be worse"), blaming / dehumanizing the victim (3 items, e.g., "Kids who get mistreated usually do something to deserve it"), obscuring personal responsibility (3 items, "Kids cannot be blamed for misbehaving if their friends pressured them to do it"), and misrepresenting injurious consequences (3 items, e.g., "Teasing someone does not really hurt them"). The 12 items were randomly assigned to one of three parcels (Little et al., 2002) that were used as observed variables in the modeling of a latent variable. As seen in previous studies, confirmatory analyses showed that these parcels were manifestations of a single factor (T1 omega = .82; T2 omega = .88).

Sociometric nominations. Participants were asked to select their first best friend from a list of all the participating boys and then girls (separate list) in their classroom. This was done in order to identify each participant's first same-sex best friend. Once identified, victimization scores were derived for this best friend from the peer nomination tool described below.

Peer Nominations. Defending, victimization, and aggression (used as a control variable) were measured with peer assessments (Bukowski et al., 2011). Participants were presented with a list of the names of every participating classmate along with a description of a form of functioning. The participants were asked to select an unlimited number of peers that matched each description, but could not choose him or herself. The number of nominations received by a participant from same-sex peers for a given item was used as the participant's score on that item. *Defending* was measured using three items taken from the Participant Role Questionnaire (Salmivalli, et al., 1996): "Someone who comforts a student who has been bullied," "Someone who tells others to stop bullying," and "Someone who tries to make the others stop bullying" (T1 omega = .80, T2 omega = .79). *Victimization* was measured using three items: "Someone who gets called bad names and gets made fun of," "Someone who gets hit and pushed around in a mean way," and "Others spread nasty rumors about him/her" (T1 omega = .86; T2 omega = .75). *Aggression* was assessed using three items "Someone who hurts others physically," "Someone who hits, pushes or shoves others in a mean way," and "Someone who insults or threatens others" (T1 omega = .94; T3 omega = .93). In order to reduce the bias in scores due to variations in class size, the number of nominations received by each child was adjusted as described by Velasquez and colleagues (2013).

Results

Preliminary Analyses

Multiple imputation. Missing data was handled using multiple imputation (Little et al., 2011). Five factor scores were calculated using principal components analysis. These factors represented 44% of the variance in the original dataset, and were used as anchor variables (in addition to sex, age, and classroom) in the creation of twenty separate imputed data sets using Amelia II software (Honaker et al., 2012). Final analyses were performed in MPlus Version 6.0 (Muthén & Muthén, 2010; TYPE = IMPUTATION).

Descriptive statistics and mean differences. For simplicity, observed variables (calculated as the mean of all items for a given measure) were used in preliminary descriptive analyses carried out in IBM SPSS version 19. Table 3.1 displays means, standard deviations, and maximum and minimum values for the total sample, as well as means and standard deviations for boys and girls separately. Bivariate correlations are given in Table 3.2, highlighting several main effects of sex on the study variables, namely that girls are perceived to be higher on defending, boys are perceived to be higher on aggression, girls have best friends who are perceived to be lower on victimization, and boys report higher levels of moral disengagement.

Interaction terms. Interaction terms were obtained by first mean centering the indicators representing the latent moral disengagement and best friend victimization variables. Next, three product terms were created by randomly multiplying each of the three centered moral disengagement indicators with each of the three centered best friend victimization indicators. Residual centering (Lance, 1988) was employed in order to deal

with fundamental problems associated with interaction terms (e.g., collinearity with first-order predictors; Pedhazur, 1982). This was done by regressing each of the product terms onto their corresponding multipliers (i.e., first order predictors). The resulting residualized scores were used to represent the three indicators of the latent Moral Disengagement x Best Friend Victimization interaction variable.

Final Analyses: The moderating effect of best friend victimization on the association between moral disengagement and subsequent defending behaviour

A latent variable model, shown in Figure 3.1, containing measures of defending, best friend victimization, moral disengagement, and aggression, as well as the interaction between best friend victimization and moral disengagement was tested using structural equation modeling with MPlus. Several path analyses were modeled and tested with sex included as a control variable given the significant mean differences between sexes. First, a stability model with paths linking a given measure from T1 to T2 was tested and then compared to a model containing cross lagged paths between measures across time. Finally, a multigroup procedure was used to assess sex differences in the findings. The goodness of fit of these models was compared using the Chi squared difference test.

Although the initial stability model showed an adequate level of fit ($\chi^2_{(241)} = 352.40$, $p < .05$, CFI = .95, RMSEA > .05) the second model that included the cross lagged paths was found to be significantly better ($\chi^2_{(236)} = 331.29$, $p < .05$, CFI = .95, RMSEA > .05; $\Delta\chi^2 (12) = 21.11$, $p < .05$). The fit of a third model that included the interaction between moral disengagement and best friend victimization had the same goodness of fit as that of the cross lagged model ($\chi^2_{(296)} = 371.10$, $p < .05$, CFI = .97, RMSEA < .05; $\Delta\chi^2 (67) = 39.81$, $p > .05$).

This model was then tested separately for boys and for girls in an unconstrained multiple group model, which was observed to be a very poor fit to the data and was significantly weaker than the full sample model as established using the Chi squared difference test ($\chi^2_{(590)} = 891.07$, $p < .05$, CFI = .86, RMSEA > .05; $\Delta\chi^2 (294) = 519.97$, $p < .05$). Results are therefore given for the full sample, which represents boys and girls. The model containing the interaction was retained as the final model due to the conservativeness of the analyses, the slightly better model statistics, and the additional information that it provides, as described below.

Figure 3.1 displays the standardized coefficients for the significant paths in the final model ($p < .05$, two-tailed test unless otherwise specified; one-tailed tests were considered acceptable given that hypotheses regarding direction of associations were specified a priori). A significant amount of stability was observed in all measures, and was especially strong in peer-reported aggression. Concurrent associations were in the expected directions. One important observation is that the victimization level of one's best friend was related to low levels of defending and high levels of aggression (concurrently). Beyond these significant autoregressive paths and covariances, significant cross lagged paths were observed from T1 aggression to both T2 defending (negative as expected) and T2 moral disengagement (positive as expected). Moreover, there was a one-tailed trend from T1 moral disengagement to T2 defending (also in the expected negative direction). Beyond these main effects, and as expected, there was a significant positive interaction between moral disengagement and best friend victimization at T1 in predicting T2 defending. As illustrated in Figure 3.2, the slope between moral disengagement and subsequent defending varied as a function of the victimization level

of one's best friend. The slope was most negative for those who had a best friend who was low on victimization. The slope became more positive with increasing levels of best friend victimization. As hypothesized, variance in defending as a function of best friend victimization was greatest for those who were highest on moral disengagement.

Discussion

Given the critical role that defenders play in curbing bullying at school, studies that help clarify the multiple levels of complexity surrounding defending behaviour are very much needed. The present study contributed to this important area of research with the implementation of a longitudinal design that combined self- and peer-report perspectives and that provided greater insight into the mechanisms underlying defending behaviour. Findings suggest that children's motivation to come to the defense of specific victims may be influenced by their relationship with the victim. The contextual nature of morality was evident in that moral cognitions were selectively expressed as a function of friendship. Specifically, moral disengagement, which is a cognitive strategy that is postulated to inhibit moral agency (Bandura, 1999), only inhibited defending behaviour in those children who have best friends with low levels of victimization. Alternatively, the negative association between moral disengagement and defending disappeared for those with best friends with the highest levels of victimization; that is, moral disengagement no longer accounted for changes in defending behaviour. This effect was most pronounced for children who were higher on moral disengagement, a finding confirms that although moral disengagement plays a role in predicting defending behaviour, the association is not fixed or invariant but that it is instead moderated by friendship. More generally, the current study has provided support for Sullivan's (1953)

claim that an essential feature of the friendship experience is an increased sensitivity to the needs of one's friend.

The possibility that even those children who report the highest levels of moral disengagement may defend under particular conditions has important implications. It may be the case that friendship provides more selective defenders with a context for the socialization of prosocial behaviour. Ideally, this group of children may gain greater efficacy in defending that may eventually generalize to non-friends. As suggested by the socio-cognitive theory of moral agency (Bandura, 1999), behaviour change may feed back into changes in moral cognition. As such, friendships may indeed provide the opportunity for moral development (Bukowski & Sippola, 1996).

The above suggestion that low defending efficacy may account for children's lack of defending is supported by previous research demonstrating the predictive effect of efficacy beliefs on defending behaviour (Barchia & Bussey, 2011b; Pöyhönen et al., 2010; Thorberg & Jungert, 2013). Moral disengagement may serve as an adaptive coping strategy for such children as they may not have the skills or resources to defend victimized peers. This interpretation is supported by Staub's (2000) view that internal conflict may arise in bystanders who remain morally engaged yet passive when witnessing acts of aggression. The current study raises the added question of whether some children who are not able to defend just any victimized peer may nonetheless be willing and somehow able to defend a specific peer due to friendship motives. If there is such a split in the fulfillment of impartial moral obligations (i.e., to non-specific others) versus partial moral obligations to friends, then moral disengagement mechanisms may be used to bridge this split.

Philosophical arguments have been articulated to support the adaptiveness of such disengagement strategies. According to Stocker (1976), deontological moral orientations lead to a sort of "moral schizophrenia" due to a rift between the universal moral reasoning that they advocate and powerful motives stemming from concern for particular others (e.g., friends). The current study cannot determine whether moral disengagement was used as a coping strategy to heal rifts between moral cognitions and behaviour. Continued studies that clarify the over-time interplay between moral disengagement and factors such as defending efficacy and social status (e.g., Caravita et al., 2012) may offer useful insight into the possibility that some children become morally disengaged because (1) defending is much harder for them and (2) they defend some victimized peers but not others.

The current study raises several questions for future research with regard to the issue of bystander partiality toward friends versus others. Why might this partiality exist and how can it inform interventions aimed at recruiting or training defenders? Studies that explore factors such as moral emotions, efficacy, and perceived defending norms as a function of a bystander's relationship with the victim, and the bully, may reveal important differences in the prevalence and form of defending.

Future Directions

Moral emotions and cognitions. It is believed that a bystander's motives to intervene are subject to the emotions elicited when witnessing a bullying incident (e.g., fear, anger, guilt, embarrassment, confusion, shame). These emotions may differ depending on whether one is witnessing unfamiliar peers in a bullying situation versus a friend being bullied, or perhaps a friend doing the bullying. For example, greater anger

(i.e., moral outrage) or concern when witnessing a friend being bullied may explain defending in children who may otherwise be passive due to other inhibitory factors (e.g., fear, low social status, moral disengagement). With evidence that emotional states shape moral judgments (Valdesolo & DeSteno, 2006), potential differences in emotional responses may reveal that the act of bullying may be viewed as more wrong because it is happening to someone close (Linke, 2012; Slomkowski & Killen, 1992). While the widely-used Mechanisms of Moral Disengagement Scale (Bandura et al., 1996) devotes several items to such relationally-dependent moral justifications (e.g., "it is alright to fight to protect your friends"), more sensitive methodologies are needed given that the scale has consistently been found to load onto a single factor even though it aims to capture eight theoretical mechanisms.

Efficacy. The question of whether children find it easier to defend a friend versus a non-friend is also worth exploring. Such studies may provide important information about factors related to efficacy in one bystander situation over another. For example, is there less ambiguity for a bystander when a friend is being bullied? If this is the case, then the bystander may have a better idea about whether intervention is necessary and how best to intervene, suggesting that certain inhibitory processes typically observed due to the bystander effect (Latané & Nida, 1981, Darley & Latané, 1968) may not be as pronounced when witnessing a friend being bullied.

Perceived defending norms. Another highly relevant issue that may help clarify bystander motives to defend a friend versus a non-friend relates to whether the peer group supports one form of defense over another. If it is the case that defending friends is perceived to be more acceptable, and even expected, then passivity due to fear of

retaliation from bullies or concern for losing one's social status may become far less likely.

Group level effects. Much larger studies are needed to tackle questions about the effect of these potential differences at the classroom level (e.g., Salmivalli & Voeten, 2004). For example, do potential differences in friendship-based norms impact the frequency of defending in classrooms? Studies that compare classrooms where more individual alliances motivate defending versus classrooms where there is greater impartiality in defending may provide information for school-wide interventions, such as the fostering of a collective ideology and a stronger sense of relatedness among classmates.

Friend influence. Greater statistical power is also needed in order to better ascertain the mechanisms underlying the dyadic influence within a friendship. For instance, studies that apply the Actor-Partner Interdependence Model (APIM: Kenny, Kashy, & Cook, 2006; e.g., Laursen, Hafen, Kerr, & Stattin, 2011) may identify the direction of influence between friends within a dyad based on their relative level on key attributes (e.g., peer acceptance), and whether the strength and direction of this influence varies as a function of different friendship categories (e.g., stable versus unstable dyads, girl versus boy dyads).

Summary

The findings of the current study provide evidence that defending behaviour is shaped by a complex interplay between individual and interpersonal factors, and that morality is expressed – or suppressed within a social context. While moral disengagement tends to deter prosocial behaviour in general, having a best friend who is

victimized motivates defending behaviour even in those highest on moral disengagement. Identifying the reasons for this form of partiality in defending behaviour is a valuable area for future research. Importantly, those children who were more engaged were also more impartial in their defending behaviour, suggesting that continued exploration into factors that differentiate more engaged from disengaged children is also warranted.

Table 3.1. Descriptive statistics for the study variables.

	Total (N = 130)			Boys (n = 68)	Girls (n = 62)
Variables	Min	Max	*M (SD)*	*M (SD)*	*M (SD)*
Age	9.47	13.61	11.36 (.69)	11.28 (.75)	11.44 (.62)
T1Defending	.00	5.81	2.07 (1.27)	1.81 (1.12)	2.36 (1.37)
T2Defending	.00	4.17	1.42 (1.08)	.95 (.86)	1.94 (1.06)
T1 Moral Disengagement	1.00	3.58	2.10 (.57)	2.20 (.58)	1.99 (.55)
T2 Moral Disengagement	1.00	4.73	2.12 (.72)	2.27 (.79)	1.95 (.61)
T1 Best Frd Victimization	.00	2.92	.70 (.66)	.89 (.68)	.50 (.56)
T2 Best Frd Victimization	.00	1.93	.64 (.49)	.77 (.52)	.50 (.41)
T1Aggression	.00	5.84	.90 (1.4)	1.34 (1.69)	.42 (.73)
T2Aggression	.00	3.77	.51 (.85)	.72 (1.00)	.28 (.56)

Table 3.2. Correlations between study variables

	1	2	3	4	5	6	7	8	9	10
1. Sex[a]	–									
2. Age	.11	–								
3. T1 Defending	.22*	.00	–							
4. T2 Defending	.46**	.03	.63**	–						
5. T1 Moral disengagement	-.19*	-.11	-.32**	-.32**	–					
6. T2 Moral disengagement	-.22*	-.04	-.27**	-.31**	.66**	–				
7. T1 Best Frd Victimization	-.30**	-.08	-.16	-.21*	.05	.09	–			
8. T2 Best Frd Victimization	-.29**	-.12	-.07	-.22*	.09	.05	.64**	–		
9. T1 Aggression	-.33**	-.09	-.35**	-.44**	.15	.27**	.24**	.30**	–	
10. T2 Aggression	-.26**	.01	-.30**	-.39**	.09	.15	.21*	.31**	.86**	–

Note. [a]Boys coded as 0 and girls as 1; *$p < .05$; **$p < .01$.

Figure 3.1. Standardized path coefficients of the final path model.

$\chi^2_{(296)} = 371.10$, $p < .05$, CFI = .97, RMSEA < .05. Solid paths, $p < .05$; dashed path, $p < .10$.

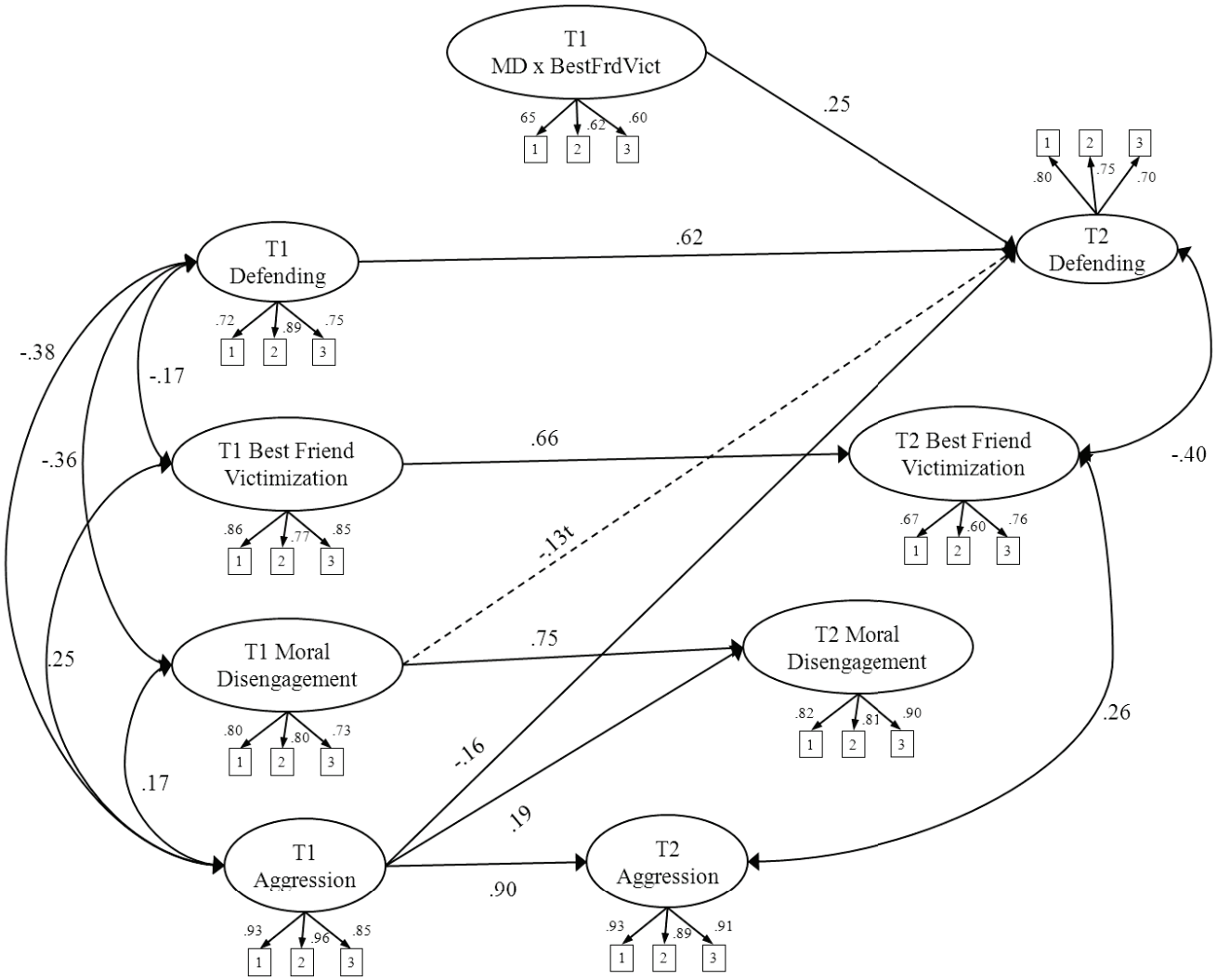
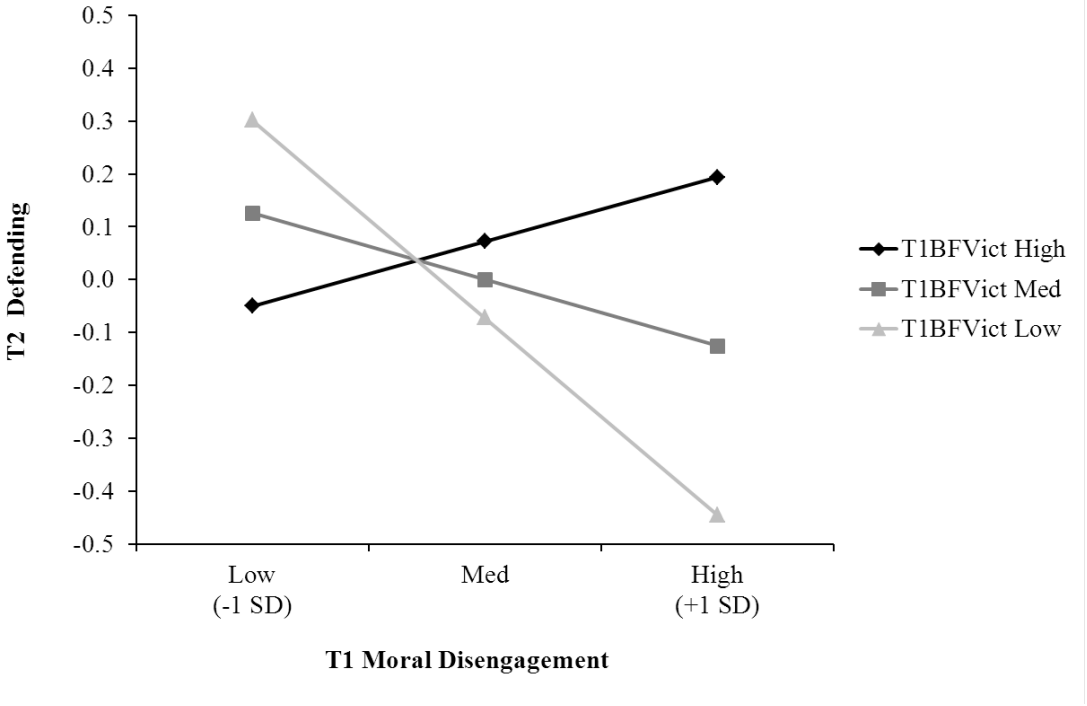


Figure 3.2. The interactive effect of moral disengagement and best friend victimization at T1 on T2 defending behaviour



Notes: Standardized scores, controlling for T1 defending.

General Discussion

What motivates a child to come to the defense of a bullied school mate? What inhibits moral agency in bystanders who witness a peer being harassed? Or rather, what motivates bystanders to support a bully's aggression? These are some of the questions at the forefront of bullying research. The findings from this three-study project provide answers to these questions. They also point to several new avenues of inquiry to guide future research.

Study 1 tested longitudinal associations between moral disengagement and bystander behaviours. The overall pattern of results was consistent with Bandura's (1999) socio-cognitive theory of moral agency, offering partial support for the existence of a reciprocal relationship between moral thought and behaviour. Such a reciprocal relationship has important implications for intervention strategies, particularly in terms of the use of cognitive-behavioural approaches (e.g., Mennuti, Christner, & Freeman, 2012). These approaches are based on the premise that overall change may be achieved by targeting cognitions and behaviours either separately or in combination, with change in one influencing change in the other. Therefore, increased prosocial behaviour may be achieved by challenging children's morally disengaged cognitions just as the reduction of children's legitimization of aggression may be achieved by training prosocial behaviour.

The design of such interventions may need to also consider important sex differences and methodological issues that were highlighted, particularly with regard to the use of peer-nomination versus self-report tools and that corresponded to differences in how bystander behaviours feed into – or are fed by moral disengagement strategies. Although Study 1 provided support for targeting change in moral disengagement as a way to recruit passive bystanders to intervene in defense of victims, the findings

presented in Chapters 2 and 3 shed light on the complexity of bystander behaviour, or rather the simplicity of conceptualizing bystander behaviour solely along a moral dimension.

In Chapter 2, fundamental personality traits were found to moderate the association between moral disengagement and bystander behaviours, thus demonstrating the limitations of a uni-dimensional measurement of bystander behaviours (i.e., defending as "moral" or bully reinforcing as "immoral"). Specifically, low levels of moral disengagement were not sufficient to predict prosocial behaviour and high levels of moral disengagement were not sufficient to predict aggressive or passive behaviours. Greater sensitivity to the potential predictors of these bystander behaviours was achieved by taking a closer look at the moderating effects of two basic temperamental response tendencies. This closer focus revealed a complex pattern of heterogeneity in morally engaged and disengaged children. Morally engaged children with greater BIS sensitivity showed a pattern of both higher defending and higher passive bystanding during bullying situations. It seems then that defending behaviour is not necessarily inhibited in high BIS sensitive children: some high BIS children, especially morally engaged ones, may not perceive conflicting cues in bullying situations and may therefore not be encumbered by the otherwise inhibitory forces of a higher BIS. Stated differently, high BIS responsiveness may only inhibit behaviour that conflicts with moral thoughts, an interpretation that was also in line with the result that aggression was less likely in high BIS children only if they were morally engaged. In contrast, high BIS children were also found to remain passive (i.e., inhibited), but their corresponding low levels of moral disengagement suggests that their passivity does not necessarily mean that they are morally disconnected from the plight of their victimized peers. Future studies that take a

more thorough look at this group of morally engaged yet high BIS children may help clarify why some defend while others remain passive. Another issue that warrants further study, and that may also account for the heterogeneity in bystander behaviour is the overlap between defending and passive bystanding behaviour that was found, and that replicates previous research (e.g., Gini, 2006). In other words, it is important to understand the situational factors that contribute to a given child choosing to defend in one context yet remain passive in another.

BAS sensitivity also modulated the association between moral disengagement and bystander behaviours in a way that elucidated important parallels between defenders and bully reinforcers, despite the qualitative difference between these two forms of bystander behaviour. Higher levels of BAS amplified defending as well as bully reinforcing, but only if the behaviour matched moral cognitions (i.e., moral engagement for defending and moral disengagement for bully reinforcing). Taken together, the findings of Study 2 suggest that there is no "one size fits all" approach to the recruitment of peer defenders, and that greater sensitivity should be afforded to assessing the complex interplay between moral thoughts and actions. Given the novelty of this particular line of research, replication of findings is required, in addition to larger scale studies that track the associations among personality, morality, and bystander behaviour over time.

The study described in Chapter 3 ventured into the highly relevant, yet rarely explored domain of the relationship between a bystander and a victim. The study was based on the premise that friendship motivates moral action (Bukowski & Sippola, 1996). As expected, children with best friends who were victimized were higher on defending even though they may have reported higher levels of moral disengagement.As such, moral behaviour seems to be embedded within both an individual and interpersonal

context (Bronfenbrenner, 1979). Furthermore, findings suggest that a separate moral code exists for those closest to us (Blum, 1990, p. 46). Continued exploration into the social context surrounding bystander behaviour is a necessary yet little investigated area of research. Getting to the roots of what bystanders feel and think when they witness a victimized peer is imperative to understanding how to motivate defender behaviour. Learning how these thoughts and feelings vary as a function of the relationship between the bystander and the victim – or the bystander and the bully for that matter – must be explored.

To conclude, the vast majority of research on peer victimization and bullying has implicated characteristics of bullies and their victims as targets for intervention. The current thesis was inspired by conceptualizations of bullying as a phenomenon that arises and is diffused within a group context (e.g., Salmivalli et al., 1996). Such conceptualizations promote the recruitment of bystanders in attempts to reduce school bullying. The overall findings have implications for the design of interventions aimed at enlisting students to come to the defense of their victimized peers, particularly with regard to the importance of challenging moral cognitions, which in fact were found to contribute to bystander behaviours. After all, altering thoughts that inhibit children's moral agency during fundamentally unjust situations such as bullying is a valid target for intervention. Finally, the thesis also highlighted how the impact of moral cognitions on behaviour may depend on individual differences in personality as well as the friendship context, thus providing more nuanced information to guide theory and research, and to enhance intervention efforts aimed at improving the plight of victimized youth.

References

Adler, N. E., Epel, E. S., Castellazzo, G., & Ickovics, J. R. (2000). Relationship of subjective and objective social status with psychological and physiological functioning: preliminary data in healthy white women. *Health Psychology, 19,* 586-592. doi: 10.1037/0278-6133.19.6.586

Arsenio, W. F. & Lemerise, E. A. (2001). Varieties in childhood bullying: Values, emotion processes, and social competence. *Social Development, 10,* 59-73.

Bandura, A. (1977). *Social learning theory*. Oxford, England: Prentice-Hall.

Bandura, A. (1986). *Social foundations of thought and action: A social cognitive theory*. Englewood Cliffs, NJ: Prentice Hall.

Bandura, A. (1999). Moral disengagement in the perpetration of inhumanities. *Personality and Social Psychology Review*, *3*, 193–209. doi:1.1207/s15327957pspr0303_3

Bandura, A. (2002). Selective moral disengagement in the exercise of moral agency. *Journal of Moral Education*, *31,* 101–119.doi:1.1080/0305724022014322

Bandura, A., Barbarnelli, C., Caprara, G. V., & Pastorelli, C. (1996).Mechanisms of moral disengagement in the exercise of moral agency. *Journal of Personality and Social Psychology*, *71*, 364–374. doi:10.1037/0022-3514.71.2.364

Barchia, K., & Bussey, K. (2011a). Individual and Collective Social Cognitive Influences on Peer Aggression: Exploring the Contribution of Aggression Efficacy, Moral Disengagement, and Collective Efficacy. *Aggressive Behavior, 37*, 107-120.

Barchia, K., & Bussey, K. (2011b). Predictors of student defenders of peer aggression victims: Empathy and social cognitive factors. *International Journal of Behavioral Development, 35,* 289–297. doi: 0.1177/0165025410396746

Bauhn, P. (2011). The Extension and Limits of the Duty to Rescue. *Public Reason, 3,* 39-49.

Bierhoff, H.-W.(2002). Prosocial behaviour. Hove: Psychology Press.

Blum, L. A. (1980). *Friendship, altruism and morality.* London: Routledge & Kegan Paul.

Bronfenbrenner, U. (1979). *The ecology of human development: experiments by nature and design*. Cambridge, MA: Harvard University Press.

Bukowski, W. M., & Sippola, L. K. (1996). Friendship and morality: (How) are they related? In W. M. Bukowski, A. F. Newcomb, & W. W. Hartup (Eds.), *The company they keep* (pp. 238–261). Cambridge, MA: Cambridge University Press.

Bukowski, W. & Sippola, L. (2001). Groups, individuals and victimization: A view of the peer system. In J. Junoven. & S. Graham. *Peer harassment in school. The plight of the vulnerable and victimized.* New York: The Guilford Press.

Bukowski, W. M., Cillessen, A. H. N., & Velasquez, A. M. (2011).Peer ratings: Historical background, critical issues, and new directions. In B. Laursen, T. Little, & N. Card (Eds.), *Developmental methods,* 211-229. New York: Guilford.

Bukowski, W. M., Motzoi, C., & Meyer, F. (2009).Friendship as process, function, and outcome. In: Rubin, K. H. (Ed.); Bukowski, W. M. (Ed.); Laursen, B. (Ed.); *Handbook of peer interactions, relationships, and groups*. (pp. 217-231): New York: Guilford Press.

Caravita, S. C. S., Blasio, P., & Salmivalli, C. (2009).Unique and interactive effects of empathy and social status on involvement in bullying. *Social Development, 18,* 140-163. doi: 10.1111/j.1467-9507.2008.00465.x

Caravita, S., Gini, G., & Pozzoli, T. (2012). Main and moderated effects of moral cognition and status on bullying and defending. *Aggressive Behaviour, 38,*456-68, doi: 10.1002/ab.21447

Caravita, S. C. S., Sijtsema, J. J., Rambaran, A. J., & Gini, G. (2013). Peer influences on moral disengagement in late childhood and early adolescence. *Journal of Youth and Adolescence,* early view online. doi:10.1007/s10964-013-9953-1

Carver, C. S., & White, T. L. (1994). Behavioral inhibition, behavioral activation, and affective responses to impending reward and punishment: The BIS/BAS Scales. *Journal of Personality and Social Psychology, 67,* 319–333.

Colder, C. R., & O'Connor, R. M. (2004). Gray's reinforcement sensitivity model and child psychopathology: Laboratory and questionnaire assessment of the BAS and BIS. Journal of Abnormal Child Psychology, 32, 435–451.

Colder, C., Trucco, E., Lopez, H., Hawk, E., Read, J., Lengua, L., et al. (2011).Revised reinforcement sensitivity theory and laboratory assessment of BIS and BAS in children. *Journal of Research in Personality, 45,* 198–207.

Coplan, R. J., Wilson, J., Frohlick, S. L., & Zelenski, J. (2006).A person-oriented analysis of behavioral inhibition and behavioral activation in children. *Personality and Individual Differences, 41,* 917–927.

Corr, P. J. (2002). J. A. Gray's reinforcement sensitivity theory: Tests of the joint subsystems hypothesis of anxiety and impulsivity. *Personality and Individual Differences, 33,* 511–532.

Craig, W. M., & Harel, Y. (2004).Bullying, physical fighting and victimization. In C.Currie, C.Roberts, A.Morgan, R.Smith, W.Settertobulte, O.Samdal, V.Barnekow Rasmussen (Eds.), *Young people's health in context: International report from the HBSC 2001/02 survey WHO Policy Series: Health policy for children and adolescents***.** **(**pp. 133-144) Issue 4, WHO Regional Office for Europe, Copenhagen.

Craig, W. M., & Pepler, D. J. (1997).Observations of bullying and victimization in the school yard. *Canadian Journal of Social Psychology, 13*, 41–60.doi: 10.1177/082957359801300205

Crick, N. R., Nelson, D. A., Morales, J. R., Cullerton-Sen, C., Casas, J. F., & Hickman, S. E. (2001). Relational victimization in childhood and adolescence: I hurt you through the grapevine. In J. Juvonen & S. Graham (Eds.), *Peer harassment in school: The plight of the vulnerable and victimized* (pp. 196-214). New York: Guildford.

Darley, J. M., & Latané, B. (1968). Bystander intervention in emergencies: Diffusion of responsibility. *Journal of Personality and Social Psychology*, *8*, 377–383. doi:10.1037/h0025589

de Vignemont, F. & Singer, T. (2006). The empathic brain: how, when and why? *Trends in Cognitive Sciences, 10.*435-444.

De Waal, F. B. M. (2008). Putting the altruism back into altruism: The evolution of empathy. *Annual Review of Psychology, 59,* 279-300.doi: 10.1146/annurev.psych.59.103006.093625

Eisenberg, N. and Strayer, J., (eds) (1987) Empathy and Its Development. Cambridge University Press.

Eysenck, H. J. (1967). The biological basis of personality. Springfield, IL: Thomas.

Festinger, L. (1957). *A theory of cognitive dissonance*. Stanford, CA: Stanford University Press.

Gilligan, C. (1982). *In a different voice: psychological theory and women's development*. Cambridge, MA: Harvard University Press.

Gini, G. (2006). Social cognition in bullying: What's wrong? *Aggressive Behavior*, *32*, 528–539. doi:10.1002/ab.20153

Gini, G., Albiero, P., Benelli, B., & Altoè, G. (2008).Determinants of adolescents' active defending and passive bystanding behavior in bullying. *Journal of Adolescence, 31,* 93–105. doi: 10.1016/j.adolescence.2007.05.002

Gini, G., Pozzoli, T., & Hauser, M. (2001). Bullies have enhanced moral competence to judge relative to victims, but lack moral compassion. *Personality and Individual Differences, 50,* 603–608. doi: 10.1016/j.paid.2010.12.002

Gini, G., Pozzoli, T., & Hymel, S. (2013). Moral disengagement among children and youth: A meta-analytic review of links to aggressive behavior. *Aggressive Behavior,* early view online doi:10.1002/ab.21502

Gray, J. A. (1970). The psychophysiological basis of introversion-extraversion. *Behaviour Research and Therapy, 8,* 249–266.

Gray, J. A. (1987). The neuropsychology of emotion and personality. In S. M. Stahl, S. D. Iversen, & E. C. Goodman (Eds.), *Cognitive neurochemistry* (pp. 171–190). New York: Oxford University Press.

Gray, J. A., & McNaughton, N. (2000).*The neuropsychology of anxiety.* Oxford, England: Oxford University Press.

Greenwald, A. G., & Farnham, S. D. (2000).Using the implicit association test to measure self-esteem and self-concept. *Journal of Personality and Social Psychology, 79,* 1022–1038. doi:10.1037/0022-3514.79.6.1022

Hastings, P. D., Utendale, W. T., &Sullivan, C. (2007). The socialization of prosocial development. In J. E. Grusec & P. D. Hastings (Eds.), *Handbook of socialization* (pp. 638–664).New York: Guilford Press.

Hawker, D. S. J., & Boulton, M. J. (2000). Twenty years' research on peer victimization and psychosocial maladjustment: A meta-analytic review of cross-sectional studies. *Journal of Child Psychology and Psychiatry, 41*, 441–455.

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. doi: 10.1037/0012-1649.35.1.94

Hoffman, M. L. (2000). *Empathy and Moral Development: Implications for Caring and Justice*, Cambridge University Press, Cambridge, U.K.

Hogg, M. A., & Vaughan, G. M. (2008).*Social psychology: An introduction* (5th ed.). London: Prentice-Hall.

Honaker, J., King, G., & Blackwell, M. (2010).*Amelia II: A Program for Missing Data* (Version 1.5) [Computer software]. Cambridge, MA: Harvard University. http://gking.harvard.edu/amelia/Hyde, Shaw, & Moilanen, 2010).

Hyde, L., Shaw, D. S., & Moilanen, K. (2010).Developmental precursors of moral disengagement and the role of moral disengagement in the development of antisocial behavior. Journal of Abnormal Child Psychology. 38, 197-209.

Hymel, S., Rocke-Henderson, N., & Bonanno, R. A. (2005). Moral disengagement: A framework for understanding bullying among adolescents. *Journal of Social Sciences*, *8*, 1–11.

Juvonen, J., & Galván, A. (2008). Peer influence in involuntary social groups: Lessons from research on bullying . In M. J., Prinstein, & K. A., Dodge (Eds.), *Understanding peer influence in children and adolescents.*225-244. New York: Guilford Press.

Juvonen, J., Nishina, A., & Graham, S. (2001). Self-views versus peer perceptionsofvictims status among early adolescents. In J. Juvonen& S. Graham(Eds.), *Peer harassment in schools: The plight of the vulnerable and victimized* (pp. 105–124). NY, NY: Guilford.

Kant, I. (1996[1797]). *The Metaphysics of Morals*.Cambridge University Press.

Kärnä, A., Voeten, M., Poskiparta, E., & Salmivalli, C. (2010).Vulnerable children in varying classroom contexts: Bystanders' behaviors moderate the effects of risk factors on victimization. *Merrill-Palmer Quarterly, 56*, 261-282. doi: 10.1353/mpq.0.0052

Keller, M. (2004a). A Cross-Cultural Perspective on Friendship Research.ISBBD Newsletter. Serial No. 46(2),10–11, 14.

Keller, M. (2004b). Self in relationship. In D. K. Lapsley & D. Narvaez (Eds.), *Morality, self, and identity: Essays in honor of Augusto Blasi* (pp. 269–300). Mahwah, NJ: Erlbaum.

Keller, M., Edelstein, W., Schmid, C., Fang, Fu-xi, & Fang, Ge (1998). Reasoning about responsibilities and obligations in close relationships: A comparison across two cultures. *Developmental Psychology, 34*, 731–741.

Kenny, D. A., Kashy, D. A., & Cook, D. L. (2006). *Dyadic data analysis.* New York: Guilford.

Kingsbury, A., Coplan, R. J., Weeks, M., & Rose-Krasnor, L. (in press).Covering all the BAS's: A closer look at the links between BIS, BAS, and socio-emotional functioning in childhood. *Personality and Individual Differences.*

Kohlberg, L. (1976). Moral stages and moralization.In T. Lickona (Ed.), *Moral development and behavior.* New York: Holt, Rinehart & Winston.

Lagerspetz, K., Björkqvist, K., Berts, M., & King, E. (1982).Group aggression among school children in three schools. *Scandinavian Journal of Psychology*, *23*, 45–52. doi:10.1111/j.1467-9450.1982.tb00412.x

Lance, C. E. (1988). Residual centering, exploratory and confirmatory moderator analysis, and decomposition of effects in path models containing interactions. *Applied Psychological Measurement, 12,*163–175.

Lansu, T. A. M., Cillessen, A. H. N., and Karremans, J. C. (2012). Implicit associations with popularity in early adolescence: An approach–avoidance analysis. *Developmental Psychology, 48,* 65-75.

Latané, B., & Darley, J. M. (1968).Group inhibition of bystander intervention in emergencies. *Journal of Personality and Social Psychology*, *10*, 215–221.doi:10.1037/h0026570

Latané, B., & Darley, J. M. (1970).*The unresponsive bystander: Why doesn't he help?* New York: Meredith.

Latané, B., & Nida, S. (1981). Ten years of research on group size and helping. *Psychological Bulletin, 89*, 308–324.

Laursen, B. Hafen, C. A..Kerr, M., &, Stattin, H. (2012). Friend influence over adolescent problem behaviors as a function of relative peer acceptance: to be liked is to be emulated. *Journal of Abnormal Psychology, 121,* 88–94.

Linke, L. H. (2012). Social Closeness and Decision Making: Moral, Attributive and Emotional Reactions to Third Party Transgressions. *Curr Psychol, 31,* 291–312. doi: 10.1007/s12144-012-9146-1

Little, T. D., Cunningham, W. A., Shahar, G., & Widaman, K. F. (2002). To parcel or not to parcel: Exploring the question, weighing the merits. *Structural Equation Modeling, 9,* 151-173. doi: 10.1207/S15328007SEM0902

Little, T. D., Howard, W., J., McConnell, E. K., & Stump, K.N. (2011).Missing data in large data projects: Two methods of missing data imputation when working with large data projects.KUant Guides.Retrieved from http://crmda.ku.edu/main/KUant_Guides.

Maccoby, E. E., & Jacklin, C. N. (1987).Gender segregation in childhood. In E. H. Reese (Ed.), *Advances in child development and behavior* (Vol. 20, pp. 239–287). NY: Academic Press.

Mayeux, L., & Cillessen, A. H. N. (2008). It's not just being popular, it's knowing it, too: The role of self-perceptions of status in the associations between peer status and aggression. *Social Development*, *17*, 871–888. doi:10.11117j.1467-9507.2008.00474.x

McNaughton, N., & Corr, P. J. (2008). The neuropsychology of fear and anxiety: A foundation for reinforcement sensitivity theory. In P. J. Corr (Ed.), Thereinforcement sensitivity theory of personality (pp. 44–94). New York, NY, US: Cambridge University Press.

Menesini, E., Sanchez, V., Fonzi, A., Ortega, R., Costable, A., & Feudo, G. L.(2003). Moral emotions and bullying: A cross-national comparison of differences between bullies, victims and outsiders. *Aggressive Behavior*, *29*, 515–530.doi:10.1002/ab.80012

Mennuti, R. B., Christner, R. W., & Freeman, A. (2012).Cognitive-Behavioral Interventions in Educational Settings: A Handbook for practice (2nd edition). New York: Routledge/Taylor & Francis Group, 754 pp.

Mill, J. S. (1987[1863]).*Utilitarianism*. Prometheus Books.

Muris, P., Meesters, C., de Kanter, E., & Timmerman, P. E. (2005). Behavioural inhibition and behavioural activation system scales for children: Relationships with Eysenck's personality traits and psychopathological symptoms. *Personality and Individual Differences, 38,* 831–841.

Muthén, L.K. & Muthén, B.O. (2010). *Mplus User's Guide.Sixth Edition*. Los Angeles, CA: Muthén & Muthén

Nisbett, Richard, & Wilson, Timothy. (1977). Telling more than we can know: Verbal reports on mental processes. *Psychological Review, 84,* 231-259.

O'Connel, P., Pepler, D., & Craig, W. (1999). Peer involvement in bullying: Insights and challenges for intervention. *Journal of Adolescence*, *22*, 437–452. doi:10.1006/jado.1999.0238

Obermann, M.-L. (2011). Moral disengagement among bystanders to school bullying. *Journal of School Violence, 10,* 239-257. doi: 10.1080/15388220.2011.578276

Paciello, M., Fida, R., Tramontano, C., Lupinetti, C., & Caprara, G. V. (2008).Stability and change of moral disengagement and its impact on aggression and violence in late adolescence. *Child Development*, *79*, 1288–1309. doi:10.1111/j.1467-8624.2008.01189.x

Pedhazur, E. J. (1982).*Multiple regression in behavioral research* (2nd ed.). New York: Holt, Rinehart,& Winston.

Pöyhönen, V., & Salmivalli, C. (2008). New directions in research and practice addressing bullying: Focus on defending behavior. In W. Craig (Ed.), An international perspective on understanding and addressing bullying PREVNet publication series, Vol. 1. (pp. 6–43).

Pöyhönen, V., Juvonen, J., & Salmivalli, C. (2010). What does it take to stand up for the victim of bullying? The interplay between personal and social factors. *Merrill-Palmer Quarterly.56,* 143-163

Pozzoli, T., & Gini, G. (2010). Active defending and passive bystanding behavior in bullying: The role of personal characteristics and perceived peer pressure. *Journal of Abnormal Child Psychology, 38*, 815-827. doi: 10.1007/s10802-010-9399-9

Pozzoli, T., & Gini, G. (2013). Friend similarity in attitudes toward bullying and sense of responsibility to intervene. *Social Influence, 8,* 161-176.

Quong, J. 2009. Killing in Self-Defense. *Ethics* 119: 507–37.

Revelle, W., & Zinbarg, R.E. (2009). Coefficients Alpha, Beta, Omega, and the GLB: comments on Sijtsma. *Psychometrika, 74*, 145-154.

Rigby, K., & Johnson, B. (2006).Expressed readiness of Australian school children to act as bystanders in support of children who are being bullied. *Educational Psychology*, *26*, 425–44.doi:1.1080/01443410500342047

Rosen, P. J., Milich, R., & Harris, M. J. (2007). Victims of their own cognitions: Implicit social cognitions, emotional distress, and peer victimization. Journal of Applied Developmental Psychology, 28, 211-226. doi:1.1016/j.appdev.2007.02.0012007-06806-0021.1016/j.appdev.2007.02.001. 1.1016/j.appdev.2007.02.001 .

Rubinstein, S. L. (2005). *Understanding adolescent participation in harassment: A social cognitive approach.*(Doctoral dissertation). Retrieved from ProQuest Dissertations and Theses. (Accession Order No. 2005-99016-067)

Sainio, M., Veenstra, R., Huitsing, G., & Salmivalli, C. (2011). Victims and their defenders: A dyadic approach. *International Journal of Behavioral Development, 35*, 144–151. doi:10.1177=0165025410378068.

Saldarriaga, L.M. (2011). *The moderating effects of prosocial behaviour, friendship quality and social problem solving in the relationship between risk factors and*

peer victimization in Colombian early adolescents.(Doctoral dissertation). Retrieved from ProQuest Dissertations and Theses. (Accession Order No.)

Salmivalli, C. (2010). Bullying and the peer group: A review. *Aggression and Violent Behaviour*, *15*, 112–12. doi:1.1016/j.avb.2009.08.007

Salmivalli, C., Lagerspetz, K., Björkqvist, K., Österman, K., &Kaukiainen, A. (1996). Bullying as a group process: Participant roles and their relations to social status within the group. *Aggressive Behavior*, *22*, 1–15.doi:10.1002/(SICI)1098-2337(1996)22:1<1::AID-ABI>3.0.CO;2-T

Salmivalli, C., & Voeten, M. (2004). Connections between attitudes, group norms, and behaviors associated with bullying in schools. *International Journal of Behavioral Development, 28*, 246–258.

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 and Adolescent Psychology, 40,* 668-676. doi: 10.1080/15374416.2011.597090

Sandstrom, M. J. & Jordan, R.(2008). Defensive self-esteem & aggression in childhood. *Journal of Research in Personality, 42*, 506-514.

Schmitt, N. (1996). Uses and abuses of coefficient alpha. *Psychological Assessment, 8,* 350–353.

Sijtsma, K. (2009). On the Use, the Misuse, and Very Limited Usefulness of Cronbach's Alpha. *Psychometrika, 74*, 107-120.

Singer, P. (1972). Famine, Affluence, and Morality. *Philosophy and Public Affairs, 1*, 229-243.

Slomkowski, C. L.& Killen, M. (1992).Young children's conceptualizations of transgressions with friends and nonfriends. *International Journal of Behavioral Development, 15*, 247-258.doi: 10.1177/016502549201500205

Staub, E. (1970). A child in distress: The influence of age and number of witnesses on children's attempts to help. *Journal of Personality and Social Psychology, 14*, 130–140.

Staub, E. (2000). Genocide and mass killing: Origins, prevention, healing and reconciliation. *Political Psychology*, *21*, 367–382. doi:10.1111/0162-895X.00193

Stocker, M., (1976).The Schizophrenia of Modern Ethical Theories. *Journal of Philosophy, 73*.453–466.

Sullivan, H. S. (1953).*The interpersonal theory of psychiatry*. New York: Norton.

Sutton, J., & Smith, P. K. (1999).Bullying as a group process: An adaptation of the participant role approach. *Aggressive Behavior*, *25*, 97–111. doi:10.1002/(SICI)1098-2337(1999)25:2<97::AID-AB3>3.0.CO;2-7

Thornberg, R. (2010). A student in distress: Moral frames and bystander behavior in school. *Elementary School Journal, 110*, 585-608. doi: 10.1086/651197

Thornberg, R., & Jungert, T. (2013). Bystander behavior in bullying situations: Basic moral sensitivity, moral disengagement and defender self-efficacy. *Journal of Adolescence, 36*, 475–483. doi:10.1016/j.adolescence.2013.02.003

Valdesolo, P.& DeSteno, D. (2006). Manipulations of emotional context shape moral judgment. *Psychological Science, 17,* 476-477.

van den Berg, Y. H. M., Cillessen, A. H. N. (2013). New Directions in Sociometric Data Collection: The Equivalence of Computerized and Paper-and-Pencil Questionnaires. *International Journal of Behavioral Development, 37,* 68-76.

Velasquez, A. M., Bukowski, W. M., & Saldarriaga, L. M. (2013).Adjusting for group size effects in peer nomination data. *Social Development, 22,* 845-863. DOI: 10.1111/sode.12029

Wardell, J. D., O'Connor, R. M., Read, J. P., Colder, C. R. (2011). The behavioral approach system moderates the prospective association between the behavioral inhibition system and alcohol outcomes in college students. *Journal of Studies on Alcohol and Drugs, 72*, 1028-1036.

Wolpe, J. (1961). The systematic desensitization treatment of neuroses. *Journal of Nervous and Mental Disorders, 132*, 189-203.doi: 10.1097/00005053-196103000-00001

Appendix A: Parental Consent Form

ONE WORLD WHOLE CHILD PROJECT

(GRADES 5 and 6)

PERMISSION SLIP

Please read and sign the following:

I know that my daughter/son has been asked to be in a study conducted by Dr. W. M. Bukowski.

I know that the study is about children's experiences with their parents, friends, and teachers and their adjustment. I know that if my daughter/son participates she/he will be asked to answer some questionnaires at his/her desk in the classroom. I have been told that the questionnaires are about how young people think and feel about themselves and their friends. I know that the children will complete the questionnaires three times across the school year and that they will be brought to the PERForn Centre at Concordia for a set of physical assessments. I know also that all participating children will receive a gift of school supplies and a t-shirt from the research team at the conclusion of the final data collection.

I know that my daughter/son does not have to be in the study. I know also that even if she/he starts to be in it but changes her/his mind she/he can quit at any time. I also know that all answers are confidential and will NOT be shown to anyone. Only Dr. Bukowski and his assistants will know what is in the questionnaires.

Please check one of the following and ask your daughter/son to bring this permission slip into the homeroom class tomorrow.

____ My son/daughter <u>has permission</u> to take part in Dr. Bukowski's study

____ My son/daughter <u>DOES NOT have permission</u> to take part in Dr. Bukowski's study.

Parent's Name: _____ PHONE: (_____)_____

Signature: _____ DATE: _____

Child's Name: _____ CHILD'S SEX: †Male †Female

Appendix B: Child Assent Form

ONE WORLD WHOLE CHILD STUDY

PRIMARY FIVE & SIX

CHILD PERMISSION SLIP

I understand that I have been asked to take part in a study about children's behaviours and well-being. I have been told by Dr William M. Bukowski that the purpose of the study is to collect information about how children's skills and behaviours are related to their healthy well-being and adjustment.

I have been told that I will be asked to complete some questionnaires that are about how young people think and feel about themselves and their friends and family. I know that I will complete the questionnaires five times across the school year. Two of these times will last about an hour. The other three times will take 30 minutes. I know also that all participating children will receive a gift of school supplies and a t-shirt from the research team at the conclusion of the final data collection.

Dr Bukowski has informed me that (a) my participation is voluntary; (b) I do not have to answer the questionnaires if I do not want to, and (c) I can end my participation at any time. I have also been told that my answers will be confidential.

I am willing to take part in this project.

MY NAME:_____

MY SIGNATURE_____

TODAY'S DATE_____