

BULLYING AND SOCIAL DILEMMAS
The Role of Social Context in Anti-Social Behaviour

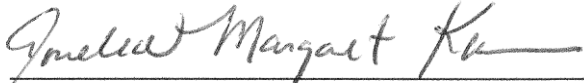
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Abstract

Research and interventions concerning anti-social behaviour have neglected the bad behaviour of “good” people or those who typically behave pro-socially. Additionally, past and current research and practice in this area have often neglected how factors in one’s current environment influence behaviour. Instead, the focus has been on how individual characteristics—borne of the interplay of genetic composition and environmental influences over time—result in anti-social behaviour. However, evidence suggests immediate contexts can foster even atypical behaviour, behavior not correlated with genetic and long-term environmental influences.

The thesis is presented in four parts. Part One introduces the idea that immediate group context can have a significant effect on anti-social behaviour, particularly that of “good” people. Part Two reviews research on the impact of social dynamics on behaviour. Part Three presents the empirical study on the role of a particular group dynamic, social dilemmas, in relation to a specific type of anti-social behaviour, bullying. Finally, Part Four considers the implications of the thesis for future research and practice.

Social dilemmas are situations in which individual motives are at odds with the best interests of the group and help to explain why individuals sometimes make anti-social decisions. The study at the core of this thesis tested two hypotheses: 1) both individual and group factors are associated with behaviour in bullying situations; and 2) attitudes, group norms, and social dilemmas each have a unique contribution to predicting behaviour in bullying situations. Participants were 292 middle school students at a residential school in the U.S., and data were analysed using multi-level modelling. The primary findings were, in general, consistent with the two hypotheses. The research suggests that social dilemma dynamics might be an important group factor in predicting behaviour in bullying situations.

Introduction

Research and interventions concerning anti-social behaviour have neglected the bad behaviour of “good” people or those who typically behave pro-socially. Additionally, past and current research and practice in this area have often neglected how factors in one’s current environment influence behaviour. Instead, the focus has been on how individual characteristics—borne of the interplay of genetic composition and environmental influences over time—result in anti-social behaviour. However, evidence suggests immediate contexts can foster even atypical behaviour, behaviour not correlated with genetic and long-term environmental influences. In other words, “good” people can behave quite poorly and “bad” people (or those who often behave anti-socially) can behave well, under certain social conditions¹.

Individuals tend to respond to their immediate social context in ways that help them fulfill common human desires such as to protect oneself from harm or criticism, to garner acceptance or praise from leaders and peers in a group, and to empower oneself. Such desires can be accomplished through both pro-social and anti-social means. Evidence suggests that most people enter the world with a predisposition to behave well and will fulfill desires pro-socially in most social contexts. However, some contexts provide limited means to fulfill desires pro-socially and instead foster anti-social behaviour. Additionally, “good” people appear to be more susceptible to negative influences in their immediate environments than are “bad” people to positive ones. Ongoing bad behaviour, more so than ongoing good behaviour, appears to more often result from long-term conditioning. Short-term influences might, as a result, have a lesser impact on such conditioned behaviour.

According to various studies, the majority of offending is not being conducted by “bad” people or persistent offenders, but rather by the rest of the population or “good people.” Given such evidence, as well as evidence of the vulnerability of “good” people to negative influences in their immediate context, efforts to understand and reduce anti-social behaviour might benefit from a greater attention to the anti-social behaviour of “good people.”

This thesis aims to explore four interrelated ideas (introduced above):

- Immediate group context can have a significant effect on behaviour.
- Research and practice have neglected the anti-social behaviour of “good people.”
- “Good” people are more susceptible to negative influences in their immediate social environments than are “bad” people to positive influences.
- A significant proportion of all anti-social behaviour is committed by “good” people.

The majority of the thesis will focus on the first idea, which is the premise for the empirical study at its centre.

¹ References are not included in this introduction because they are too numerous to list and appear in subsequent chapters.

The thesis is presented in four parts. Part One provides the broadest context for the study by reviewing all four of these basic ideas. Part Two narrows the focus by reviewing past research relevant to the proposition that the social dynamics within one's immediate group context can have a significant effect on behaviour. Part Three presents the empirical study on the role of a particular group dynamic; social dilemmas, in relation to a specific type of anti-social behaviour, bullying. Finally, Part Four widens the focus again to consider the implications of the study and, more broadly, all four basic ideas for future research and practice concerning anti-social behaviour. Below is a brief summary of each of these parts.

Part One presents evidence, from history and seminal studies, for all four basic ideas. This part includes definitions for "good" and "bad" and "immediate social context," and considers both the bad behaviour of "good" people and the good behaviour of "bad" people. However, the focus, as noted, is more on the former given that this is an important but neglected area of inquiry. This part ends with two models for understanding the role of immediate social context in the prediction of anti-social and pro-social behaviour.

Part Two begins with an overview of the risk and protective factor perspective on anti-social behaviour, a perspective that has dominated research and practice in this area in recent years. Research has identified common factors that place children at risk (such as poverty, racial discrimination, and poor parenting) and that appear to protect children in high-risk contexts (such as education, social support and high self-esteem). Interventions based on the risk and protective factor approach usually are designed to counteract known risk factors for anti-social behaviours and sometimes to enhance known protective factors. This part will also review limitations of perspectives on behaviour that give limited or no consideration to the impact of immediate situations. The ongoing bias in psychology and psychiatry, as well as other fields of study, toward individual factors over group or contextual factors, is also discussed.

Having addressed the limitations of the risk and protective factor perspectives on individual factors over contextual factors, Part Two then highlights research on one contextual factor—the dynamics of social groups—and its impact on behaviour. This chapter reviews studies related to goals, group norms, leadership and power structure, and group cohesion. Interventions designed to alter behaviour by changing group dynamics are also described.

The focus then narrows to behaviour in bullying situations, the type of anti-social behaviour that is the specific focus of the empirical study at the core of this thesis. Following discussion of what constitutes bullying and the prevalence of bullying among children, the chapter provides a detailed discussion of individual risk factors for bullying and for being victimised. However, as noted, evidence suggests that such risk factors provide only a partial understanding of anti-social behaviour. Thus this chapter also reviews research on the relation of social environments to children's behaviour, with a particular focus on how social norms and social hierarchies affect the behaviour of young people in bullying situations. The latter discussion focuses on how children sometimes use coercive strategies to gain power in social hierarchies and to protect themselves from being bullied.

Evidence from research on social hierarchies suggests that children, even those who usually behave pro-socially, sometimes behave anti-socially (by bullying, supporting a bully, or refraining from helping a victim) for rational reasons. The final chapter in this section examines these reasons in light of the concept of social dilemmas, which comes from the group processes perspective of social psychology and game theory. In a social dilemma, each individual works to further his or her own goals based on predictions about how others will act. However, such behaviour results in a suboptimal outcome for the group as a whole. Bullying might result, in part, from children being caught in social dilemmas. A child witnessing victimisation might be hesitant to intervene unless he or she feels confident that others will support his or her actions or at least not victimise him/her for defending the victim. When each individual bystander decides to refrain from defending a victim or even to join in the bullying in order to protect him/herself, the result is a negative outcome for the group, which has to deal with ongoing, and perhaps escalating, bullying. This chapter will also consider how various factors in social dilemmas affect behaviour, as well as strategies that tend to reduce anti-social behaviour in social dilemma situations.

Part Three begins with an introduction to the empirical study. The study replicates an earlier Finnish study, which examined the relation of attitudes and group norms to behaviour in bullying situations. The present study added a third independent variable, not yet explored in the bullying literature: social dilemmas. Specifically, two hypotheses were tested: 1) both individual and group factors are associated with behaviour in bullying situations; and 2) attitudes, group norms, and social dilemmas each have a unique contribution to predicting behaviour in bullying situations.

The next chapter presents the methodology of the study. Participants were 292 middle school students at a residential school in the U.S. Behaviour in bullying situations served as the dependent variable and included pro-bullying behaviours, defending behaviour, and withdrawing behaviour. Students completed online questionnaires at the school. Primary analyses were conducted using multi-level modelling to isolate the contributions of individual and group factors to behaviour in bullying situations.

The primary findings were that, both individual and group factors were associated with behaviour in bullying situations. Additionally, while there were clear associations between context and behaviour for all of the behaviours measured, the pro-bullying behaviours were more closely associated with context than were withdrawing and defending. The evidence also suggested that attitudes, group norms, and social dilemmas each had a unique contribution to predicting behaviour in bullying situations. More specifically, as anti-bullying attitudes and anti-bullying norms increased, pro-bullying behaviours decreased and defending increased. However, neither attitudes nor group norms appeared to have a significant relation to withdrawing behaviour. Finally, the findings of the study suggest that social dilemma dynamics might be an important group factor in predicting behaviour in bullying situations. Additionally, unlike attitudes and norms, social dilemmas helped to predict withdrawing behaviour.

The final chapter in this part reviews findings from the present study, compares them to findings from the earlier Finnish study, and proposes interpretations of the findings, drawing on evidence from relevant literature. Two questions, arising from unexpected findings, are given particular attention: 1) Why were social dilemmas only predictive of behaviour at the group level? And 2) Why did social dilemmas, but not attitudes or norms, predict withdrawing behaviour in bullying situations? This chapter concludes with a discussion of the limitations of the study.

The thesis concludes in Part Four with a discussion of its contributions and implications for future research and practice. The study on social dilemmas and behaviour in bullying situations contributed to broadening the perspective on anti-social behaviour in a number of ways. Most basically, it provided further evidence that both individual *and* group factors contribute to pro- and anti-bullying behaviour. The study also contributed to the limited literature on real life social dilemmas. Additionally, it furthered understanding of the anti-social behaviour of “good” people and, more specifically, provided some support for the models of anti- and pro-social behaviour proposed at the outset of the thesis.

The results of the empirical study suggest the importance of continued research and theory building on each of the four basic ideas and the proposed models. Finally, if future research produces findings similar to those of the present study, policymakers and practitioners might give greater consideration to the vulnerability of “good” children to negative influences and work more consciously to engineer social environments, such as classrooms and playgrounds, to prevent bad behaviour and foster good behaviour. The final chapter will consider this and other implications for practice.

Part One: “Good” People Behaving Poorly And “Bad” People Behaving Well

When trying to understand why a person behaves in a certain way, researchers (particularly in the fields of psychology and psychiatry) have more often looked to an individual’s characteristics, whether born of genetic makeup or prior experiences, than to his or her current situation. For example, when trying to understand the bullying behaviour of a child at school, more researchers have focused on genetically-linked impulse control problems, parenting styles, or the influence of the peer group over time than on the current social dynamics of the child’s current classroom.

This part of the thesis focuses on group dynamics that seem to have a significant impact on behaviour, causing people to behave in even atypical ways. The purpose of this discussion is to highlight the impact of a person’s immediate group context on his or her behaviour. The examples described in this chapter, drawn from historical events and seminal research (based on various theories), provide a broad context for the empirical study described in subsequent chapters.

This section begins with an introduction focused on the definitions of “good” and “bad” used in the thesis and whether human nature tends toward one or the other. Next is a discussion of cases of “good” people behaving poorly and immediate social factors that appear to have influenced their behaviour followed by a similar discussion of cases of “bad” people behaving well. These chapters suggest that “good” people are particularly vulnerable to negative influences in their immediate social environments, more so than are “bad” people to positive influences. Moreover, a significant proportion of all anti-social behaviour appears to be committed by “good” people. Given the evident importance of understanding the impact of immediate group factors on both pro-social and anti-social behaviour, this section ends with a model for guiding future research on how immediate group contexts affect behaviour.

Chapter One: Introduction

This chapter provides definitions of key terms used throughout the thesis as well as an overview of current thinking about “human nature” or, more specifically, how genetic propensity and long-term and short-term influences combine to produce behaviour. This discussion highlights the particular vulnerability of “good” people to negative influences in their immediate environments.

Definitions

Throughout the thesis, “group” refers to three or more people interacting with one another.² “Immediate group” refers to the people one is currently or was recently (i.e. within the last few months) interacting with rather than the people one has usually interacted with in the past. Additionally, this chapter focuses on the social dynamics of the immediate context, particularly how the goals of individuals relate to and are influenced by one another. Such goals often concern protecting oneself from harm or criticism, garnering acceptance or praise, empowering oneself, and fitting well within a group.

It is necessary to place the terms *good* and *bad* in quotations to avoid deeper, philosophical discussions of what constitutes a good or bad person and whether humans are, by nature, one or the other. For the purposes of the thesis, *good* and *bad* refer to more common language usage of the terms. “Good” people are those who usually behave in pro-social ways. In other words, they tend to help others and avoid hurting them. In contrast, “bad” people often behave anti-socially. They generally have little regard for the rights or interests of others. They frequently lie, cheat, steal, or are willing to hurt others emotionally and physically.

These broad definitions suffice for the following discussion. Although this section concludes with a possible model for understanding how immediate group contexts affect behaviour, more systematic evidence leading to more precise definitions and predictions is required for a cohesive theory. The purpose of the section is simply to present examples that suggest that it is possible for groups with certain characteristics to quickly affect the behaviour of individuals, causing them to behave in non-typical ways. Consideration of those characteristics is the starting point for future research which more closely examines what types of individuals and what types of behaviours can be significantly influenced by particular immediate group contexts and the processes by which group context affects behaviour.

² There is little agreement in the field of social psychology on what defines a group. The prevalent view (since Floyd Allport in the early 1920s) is that a group is a collection of individuals HOGG, M. A. (1996) Group processes. IN MANSTEAD, A. S. R. & HEWSTONE, M. (Eds.) *The Blackwell Encyclopedia of Social Psychology*. Blackwell Publishing..

Human Nature: Genes Vs. Environment

Although a detailed discussion of human nature falls outside of the scope of this thesis, it is worth noting that current research evidence tends to support the perspective of 18th century philosophers such as Rousseau. In *Emile*, Rousseau described how children are born in a natural state, with no conception of good or evil, and as early as infancy begin to form abiding conceptions of the world as a result of the type of care they receive from adults. His ideas, in part, reflect those of empiricists such as Hume. Empiricism holds that the mind begins as a blank slate and is formed by experience. However, Rousseau rejected the strict logic of the empiricists and opted, instead, for a more romantic understanding of nature and man as basically good rather than a value-free ‘tabula rasa’ (Strathern, 2002).

Reflecting the ideas of the empiricists, research evidence in the late 20th and early 21st century pointed to the importance of experience in forming behaviour. However, evidence also supports the idea that what 18th century philosophers called “innate ideas” also exist and influence how humans develop and behave. Moreover, in line with the ideas of Rousseau, such “innate” or genetically linked traits appear to be related more to “good” behaviour than “bad.” Some twin and adoption studies have shown that genetic composition accounts for only a small percentage of the variance in different types of anti-social behaviour (Patterson, 2008). Studies have also shown that anti-social behaviour is stable across time and circumstances for a small percentage of people (three-nine per cent) and decidedly unstable for most others, suggesting the importance of environmental factors (Barak, 2003). Additionally, research by Plomin suggests that pro-social behaviour has deeper genetic roots than anti-social behaviour. For example, in a study of 9,424 twins, Knafo and colleagues assessed the contribution of shared environment, non-shared environment, and genetics to children's pro-social behaviour.³ They found that, by age seven, genetics accounted for over 50 per cent of the variance in pro-social behaviour (Knafo and Plomin, 2006).

Most current views about the causes of both pro-social and anti-social behaviour focus on how genetic dispositions interact with consistent environmental factors to produce fairly stable behaviour over time. Rutter, who like others has argued that there is not a “criminal gene,” believes that genetic make-up can make particular responses to environmental threats more likely, leading to certain social consequences. For example, an impulsive individual who responds to an insult with violence is more likely to be arrested than a less impulsive person. Being arrested and convicted, in turn, leads to long-term negative consequences (Rutter et al., 1998).

Longitudinal research has shown how young people can become caught in self-perpetuating problematic cycles, by entering deviant peer groups, marrying deviant partners, or having children during adolescence, all of which reduce their

³ Environment is composed of two factors: 1) shared factors or those shared by siblings, making them more similar, and 2) non-shared factors or those that uniquely affect individuals, making siblings different.

opportunities for successful careers and exposure to pro-social peers (Rutter et al., 1998). The Cambridge Study in Delinquent Development followed 411 boys born in the early 1950s and who, in childhood, lived in inner city London. Information was regularly collected from and about the boys from childhood into adulthood. David Farrington and his colleagues found that the behaviour of even boys who had a high anti-social potential—due to displays of childhood aggression, hyperactivity/impulsivity, low intelligence, family criminality, poverty, or poor parenting—tended to vary according to social circumstances and influences. For example, some boys only behaved anti-socially in their adolescent years when they associated with deviant peers. Their deviance declined in their twenties if they had a job and a wife who behaved pro-socially (Farrington, 1996). Farrington's ideas were echoed by Terri Moffitt who identified a small group of “life-course persistent” young people who behave anti-socially fairly consistently across childhood and into adulthood. She also identified a larger group with “adolescence-limited” anti-social behaviour. According to her theory, those in the life-course persistent group have genetic underpinnings to their behaviour, whereas the behaviour of those in the adolescence-limited group are more affected by their social environments (Barak, 2003, Moffitt, 1993).

Farrington has proposed the Integrated Cognitive Anti-Social Potential (ICAP) Theory, which explains anti-social behaviour as the result of individual potential (to be anti-social) and situations that increase that potential. According to the theory, an individual's long-term anti-social potential results from both genetically-linked risk factors such as impulsivity, hyperactivity, and attention deficits as well as environmental factors such as family criminality, poverty, large family size and poor parenting. The theory states that short-term anti-social potential results from aspects of one's current situation, including energising factors such as boredom, frustration, or inebriation, opportunities to behave anti-socially, the presence of potential victims and lack of surveillance, and the potential costs and benefits of the behaviour from the perspective of the individual (Hagan, 2011).

The latter two factors also appear in the Rational Choice Theory that explains criminal behaviour as resulting from a rational assessment of the risks involved in violating the law, one's own need for money, personal values or learning experiences, as well as how well a target is protected, how affluent the neighbourhood is or how efficient the local police are (Sutton, 2005). Similarly, Crime Prevention Theory focuses on reducing opportunities for crime rather than on the characteristics of criminals and emphasizes the importance of reducing opportunities (Clarke, 1995, Clarke and Felson, 1993).

Farrington's model shows long-term potential influences interacting with short-term ones to produce actual behaviour. In other words, the focus is on individuals with both long-term and short-term risk factors for anti-social behaviour. Additionally, Farrington maintains that individuals with low antisocialanti-social potential tend not to commit offenses even when it might seem rational to do so. He tempered his idea following However, Farrington reached somewhat different conclusions following an experiment he conducted in which apparently lost letters with cash enclosures were left on city streets in London. He found that 78 per cent of the letters addressed to a yachting magazine from a male versus 20 per cent addressed to a senior organisation from a female were stolen. Farrington concluded

that almost everyone steals under certain conditions. Further, he called for more research on whether some people are more affected by long-term and others more affected by short-term influences. Similar research was conducted by Hartshorne and May in the 1920s. They gave 10,000 school children opportunities to lie, cheat, and steal in various situations. They found that most students cheated under some conditions. Moreover, it was not possible to predict which students would cheat based on personality assessments. The researchers conclude, in their classic text, *Studies in the Nature of Character*, that “honest and deceptive tendencies represent not general traits in our action guided by general ideas, but specific habits learned in relation to specific situations which have made the one or the other mode of response successful” (Hartshorne and May, 1928).

If almost everyone behaves anti-socially under certain conditions, then was Rousseau wrong about basic human nature? More troubling evidence appears in Chapter Three. As will be discussed, it is more difficult to find examples of “bad” people behaving well than of “good” people behaving poorly. Additionally, it appears that social conditions more readily turn “good” people toward bad behaviour than “bad” people toward good behaviour. All of these observations seem to suggest that good behaviour is more tenuous than bad behaviour.

Such observations might seem to contradict the findings from the twin and adoption studies suggesting that good behaviour has deeper genetic roots than bad, but only if one assumes that genetic composition is the most immutable and stable influence on behaviour. If one assumes that genetics provide the *potential* for certain types of behaviour and that behaviour is the result of a complex interplay between genes and environment—as most current research suggests—then these observations appear more logical (Guo and Stearns, 2002). Indeed, Batson notes that dispositional factors tend to account for only 30 to 40 per cent of variance in pro-social behaviour and that intra-individual variables better predict pro-social behaviour when situational pressures are weak (Batson, 1998).

Thus evidence suggests that the typical “good” person has a genetic propensity for good behaviour that manifests as actual good behaviour under the right circumstances, including both long-term and short-term environmental influences. By contrast, the typical “bad” person does *not* have a strong genetic propensity for bad behaviour. Rather he or she probably has been exposed to multiple negative environmental influences (family criminality, poverty, large family size, poor child rearing, etc.) and is in the habit of responding to such influences in an anti-social way. By contrast, strong environmental conditions are probably *not* necessary to foster good behaviour among those born with a genetic propensity for good behaviour. Rather an environment in which adults and peers generally encourage and support good behaviour might be sufficient.

If bad behaviour often is the result of repeated exposure to negative influences over a long period of time, it might take repeated exposure to positive influences to change that behaviour. Indeed, research on risk and protective factors suggest that as risk factors accumulate, problems become more entrenched and require stronger and more prolonged interventions (Fraser, 2004). Moreover, studies of abused children and those living in orphanages without emotional support, suggest that certain synaptic pathways in the brain are not developed when children

lack stable emotional attachments with caregivers and peers. Without these connections, it appears that brain development of caring behaviour can be damaged forever (Perry, 2002).

However, a “good” person exposed to novel and significant negative influences might change his or her behaviour more quickly, if genetics provide the only propensity for good behaviour rather than cause good behaviour. Additionally, certain circumstances might have particular power to lead to bad behaviour, even among “good” people, if those circumstances allow for the expression of a common genetic propensity to, for example, desire acceptance by a group or to increase one’s own status or power. Indeed, a recent study that examined context effects on anticipated moral emotions following aggression, found that low-aggressive children were more sensitive to contextual cues, such as having all of their classmates observe their actions, than were high-aggressive children (Roos et al., 2011).

According to the current state of evidence, then, Rousseau appears to be mostly correct. The majority of people appear to enter the world with a predisposition to behave well, and it seems that subsequent experiences have a significant impact on how an individual typically behaves over time. Moreover, the following discussions in Chapters Two and Three suggest that even well established behaviour patterns can vary across different environments and “good” people appear to be more susceptible to negative influences in their immediate environments than are “bad” people to positive influences.

The examples of “good” people behaving poorly, discussed below, are generally examples of temporary changes in behaviour. Although the subsequent behaviour of individuals in these cases, following their exposure to a social environment that apparently fostered bad behaviour, usually is not well documented, it appears that most of them returned to more pro-social behaviour when their environment changed. It should be noted that even temporary changes can have significant consequences for victims, as in the cases of the Holocaust and My Lai. The cases of “bad” people behaving well, by contrast, appear to be more lasting changes, perhaps because the changes are more often the result of significant changes in their social environments over longer periods of time.

Summary

Chapter 1 provides key definitions for the thesis, most importantly the terms “good” and “bad,” as well as a brief discussion of evidence suggesting that humans are more prone to good rather than bad behaviour.

For the purposes of the thesis, *good* and *bad* refer to common language usage of the terms. “Good” people are those who usually behave in pro-social ways. In other words, they tend to help others and avoid hurting them. In contrast, “bad” people often behave anti-socially. They generally have little regard for the rights or interests of others. They frequently lie, cheat, steal, or are willing to hurt others emotionally and physically.

Current research evidence tends to support the perspective of 18th century philosophers such as Rousseau who believed that humans were basically good. Twin and adoption studies suggest that good behaviour has deeper genetic roots than bad behaviour. However, research on social contexts also suggests that almost everyone behaves anti-socially under certain conditions. Genetics appear to provide the *potential* for certain types of behaviour, and behaviour is the result of a complex interplay between genes and environment. Thus the typical “good” person has a genetic propensity for good behaviour that manifests as actual good behaviour under the right circumstances, including both long-term and short-term environmental influences. By contrast, the typical “bad” person does *not* have a strong genetic propensity for bad behaviour but has been exposed to multiple negative environmental influences (family criminality, poverty, large family size, poor child rearing, etc.) and is in the habit of responding to such influences in an anti-social way.

If bad behaviour often is the result of repeated exposure to negative influences over a long period of time, it might take repeated exposure to positive influences to change that behaviour. Indeed, research on risk and protective factors suggest that as risk factors accumulate, problems become more entrenched and require stronger and more prolonged interventions. However, a “good” person exposed to novel and significant negative influences might change his/her behaviour more quickly, if genetics provide only propensity for good behaviour rather than cause good behaviour.

Chapter Two: “Good” People Behaving Poorly

This chapter provides examples, from history and seminal studies, of individuals who typically behave pro-socially behaving in an anti-social manner under particular circumstances. The examples are organised by the type of circumstances, which appear to have fostered the anti-social behaviour, including the influence of leaders and group norms, rational choices, the just world perspective, and the bystander effect.

Leaders And Groups Norms

Perhaps the most common explanation for why a “good” person has behaved poorly is that he or she has been influenced by a charismatic or dominating leader, a group, or extreme stress. Under such conditions, the individual often does not feel responsible for his or her behaviour. The common defences for the behaviour are: “I was just following orders;” “Everyone else was doing it, so I did too;” or “I saw no other option”.

Nazi Germany is a common historical example of “good” people behaving poorly. The documented history of the Holocaust includes accounts of prison guards and others, who had led ethical lives prior to the rise of the Nazi party, committing horrible acts within the context of Nazi Germany and, in particular, the concentration camps. A striking example is Rudolph Höss, the SS Kommandant in charge of Auschwitz. In 1985, Primo Levi, a survivor of Auschwitz, wrote a foreword to Höss’ autobiography, written prior to his execution. Höss extols the virtue of allegiance to authority, and Levi imagines that, in a different climate, Höss would have become “some sort of drab functionary, committed to discipline and dedicated to order”. (Höss and Paskuly, 1992).

A variety of theories explain why Hitler and the Nazi party were so successful in transforming the behaviour of so many. Some explanations emphasise how Nazis trained Germans to think and act in certain ways and thereby created new social norms. Other explanations point to Hitler’s charisma or the impact of stress on behaviour.

Authorities can establish anti-social norms through training. Adolph Hitler worked quite consciously to ignite anger against Jews and other groups deemed undesirable and responsible for Germany’s economic difficulties. He used mass demonstrations to create a sense of community, including stage effects like marching music, spotlights, torchlight processions, parades, flags, and shouts of “Heil!” The purpose of such rallies was to foster a sense of national unity. Germans who did not fall in line with the Nazi regime were characterised as weak. “Terror is the most effective political instrument,” said Hitler. “It is my duty to make use of every means of training the German people to cruelty, and to prepare them for war...There must be no weakness or tenderness”. (Rauschnig, 2006).

Hitler’s charisma also might have had a significant impact on his followers. Charismatic people tend to feel their own emotions quite strongly, induce similar

feelings in others (Geoghegan, 2005). By these measures, Hitler's charisma was considerable. Followers often spoke of him as godlike. Those who heard him speak, even those who had been doubters, were often mesmerised. In 1937, Kurt Ludecke wrote: "His words were like a scourge. When he spoke of Germany's disgrace, I felt ready to spring on any enemy. His appeal to German manhood was like a call to arms, the gospel he preached a sacred truth. . . I felt sure that no one who had heard Hitler that afternoon could doubt that he was the man of destiny. . . ." (Victor, 1998).

Similar explanations have been cited in relation to more recent examples of "good" people behaving poorly. The massacre by American soldiers at My Lai during the Vietnam War, for example, also involved people in positions of authority directing others to commit atrocities. As in Nazi Germany, the "others", in this case American soldiers, were already upset and looking for blame and revenge. Numerous members of Charlie Company had been maimed or killed in the area during the weeks preceding the massacre. The soldiers were ordered to enter the village firing, though there had been no report of opposing fire. In the end, over 300 apparently unarmed civilians were killed (AmericanExperience, 2005).

A more recent example is the torture of detainees in the U.S. Army Abu Ghraib prison during the war in Iraq. In a report, U.S. Major General Antonio M. Taguba, said he found that between October and December of 2003 there were numerous instances of "sadistic, blatant, and wanton criminal abuses" at Abu Ghraib. The situational influences in the case of Army Staff Sergeant Ivan Frederick, a guard at Abu Ghraib, are similar to those faced by soldiers in the My Lai massacre. Frederick and his peers were working long hours under very dangerous conditions. There were only a few guards for a thousand prisoners. Additionally, the guards were receiving directives from superiors to break down prisoners so that they would reveal intelligence.

Gary Myers, who was one of the military defence attorneys in the My Lai prosecutions, defended Frederick. Myers' defence focused on the stressful situation that the guards found themselves in, but also their training in following orders. "Do you really think a group of kids from rural Virginia decided to do this on their own?" Myers asked in an interview (Hersh, 2004).

The societal contexts of both My Lai and Abu Ghraib also might have influenced the eventual behaviour of the soldiers involved. The war in Vietnam was the result of intense fear of communism among Americans. Additionally, the war was unlike any other the U.S. had fought. Rather than protecting civilians from an enemy occupier, soldiers found that many of the South Vietnamese were sympathetic with the Viet Cong. As the war progressed and became more of a quagmire for the U.S., many soldiers viewed all Vietnamese as the enemy. Like Germans prior to the rise of the Nazis, they were stressed and wanted a clear enemy. American soldiers in Vietnam had received no training on winning the confidence of civilian Vietnamese. Rather they were taught to follow orders without question and to only trust other soldiers. These conditions tended to deteriorate any existing sympathy for the Vietnamese among soldiers and perhaps made violence toward non-combatants more likely. Similar societal conditions existed at the time of the Abu Ghraib tortures. Fear of Muslim extremists (which often extended to all Arabs) following the September 11th attacks in the U.S. was common among Americans.

Additionally, as in Vietnam, soldiers in Iraq were not dealing with a clear enemy (Olson and Roberts, 1998).

The historical cases of the Holocaust, My Lai, and Abu Ghraib are complex. The causes of the behaviour of previously “good” people during these events are not clear. Now famous experiments by Zimbardo and Milgram shed some light on this issue. More so than fear, hatred, stress, or even the charisma of a leader, these experiments suggest that human beings are quite prone to follow any instructions from an authority.

Psychologist Philip Zimbardo conducted his famous experiment at Stanford University in the U.S. in 1971, which involved randomly assigning some of his students to the role of prison guard and some to the role of prisoner and housing them in a mock prison. Guards were told that they had authority over prisoners but could not physically harm them. Five days into the experiment, Zimbardo halted the study when the student guards began abusing the student prisoners, forcing them to strip naked and simulate sex acts. Based on his research, Zimbardo has described what he calls the “Lucifer Effect,” named for God’s favourite angel who fell from grace and ultimately became Satan. According to Zimbardo, “Situations can be sufficiently powerful to undercut empathy, altruism, morality and to get ordinary people, even good people, to be seduced into doing really bad things -- but only in that situation (Zetter, 2008)”.

Zimbardo’s experiment suggests that orders from authorities alone are sufficient to bring about such transformations. The soldiers at My Lai, the guards at Abu Ghraib, and the Stanford students in Zimbardo’s experiment were all given permission, by authorities, to behave outside of usual norms. However, unlike the My Lai soldiers or Abu Ghraib prisoners, the Stanford students were not living in particularly stressful conditions nor had they been under the influence of a charismatic leader or formally trained to be aggressive. They were simply told, by an authority, how to behave. A shift in social norms, following the initial onset of aggression, also might have contributed to ongoing aggression (Zetter, 2008).

The famous experiments of Stanley Milgram in the 1960s also suggest that obedience to authority is enough to produce anti-social behaviour. Subjects in the experiments were asked to “teach” other subjects (actually confederates in the study) a list of word pairs and to administer electric shocks of increasing voltage for each wrong answer. In reality, no shocks were administered. Although his subjects were not trained to be aggressive, Milgram argued that most people *are* well trained in complying with authority and will apply that training even when being asked to behave immorally. Milgram found that most of his subjects were willing to administer what they believed to be increasingly strong shocks to others. When subjects expressed reservations about continuing, they were told that they would not be held responsible for their actions and that it was important to administer the shocks.

Unlike the other examples described above, the Milgram experiments did not involve a leader *and* a group, only a leader or authority figure. Thus the leaders were not helping to establish a norm, which, in turn, influenced the behaviour of others. However, subjects might have been behaving according to norms they learned in

other contexts, norms regarding the importance of complying with authority, as Milgram suggested.

The degree to which Milgram's findings contrasted with conventional wisdom is illustrated by the results of a poll Milgram conducted with his colleagues and psychology majors at Yale University prior to the experiment. Survey respondents predicted that only a small number of subjects with "sadist" personalities would inflict the maximum voltage. In fact, 65 per cent were willing to use the maximum voltage (Milgram, 1963). Similarly, the public has generally responded with surprise and some disbelief to atrocities like My Lai and, more recently, Abu Ghraib. Despite evidence from research and history, researchers and the general public appear to continue to underestimate the potential power of immediate circumstances on behaviour.

The examples in this section suggest that group members following a leader are often hesitant to defy orders or behave outside of the group norm, even when orders and norms contrast with their normal behaviour. The next section considers cases in which people choose to behave anti-socially on their own rather than in response to direction or commands, for apparently rational reasons.

Rational Choices

Social dilemmas are circumstances in which members of a group quite consciously choose the anti-social route because it is the logical route, or the best decision under the circumstances. Unlike the prior examples in which individuals often do not feel individually responsible for their actions, people caught in social dilemmas usually understand that they are behaving anti-socially, (although this usually does not involve violent behaviour) but see no other safe alternative.

Social dilemmas are "situations in which each decision maker is best off acting in his own self-interest, regardless of what the other persons do. Each self-interested decision, however, creates a negative outcome or cost for the other people who are involved. When a large number of people make the self-interested choice, the costs or negative outcomes accumulate, creating a situation in which each person in the group would have done better had they decided not to act in their own private interest" (Van Lange et al., 1992, Dawes et al., 1977). Thus, in a social dilemma, individuals must choose between maximising their own interests or that of the collective. Dilemmas ensue only when there is no central authority to effectively enforce cooperative behaviour (Yamagishi, 1988, Yamagishi, 1986, Van Lange et al., 1992, Komorita and Parks, 1995, Axelrod, 1984).

In a common social dilemma called a "public goods dilemma," an individual is reluctant to contribute to a public good (something that benefits everyone regardless of whether they contribute to the provision or maintenance of the good, such as a public park or clean air) if he or she believes that an insufficient number of others will contribute and thus his or her own efforts would be wasted (Kollock, 1998). One may wonder why he or she should contribute when those who do not (called "free riders") will nevertheless benefit from the public good. In other words, unilateral pro-social action is ineffective in the absence of group pro-social action and the group action is unlikely. Social dilemmas help to explain why people who

think of themselves as altruistic and concerned about others, might nevertheless fail to act in a cooperative manner (Rosen and Haaga, 1998, Stryker, 2001).

In his article, “The Tragedy of the Commons,” Hardin explains this type of dilemma by describing herders sharing land for grazing cows. Hardin explains that it is in each herder's interest to graze as many cows as possible on the shared land even if it becomes overgrazed as a result. Each individual herder receives all the benefits from the additional cows but the damage to the commons is shared by the entire group. If all herders make this decision, however, the commons is destroyed and all herders suffer (Hardin, 1968).

Polluting is another behaviour that might result from a social dilemma. Without government regulations, manufacturers have an incentive to produce as many goods as the market demands, regardless of the impact on the environment. They reap the entire benefit of the sales of their products, but share the cost of the pollution with others. Too much pollution, however, harms everyone.

Although overgrazing and polluting might all be deemed examples of less-than-ideal behaviour, it is not violent behaviour. Studies on social dilemmas usually show that under social dilemma conditions, individuals often exhibit greedy behaviour, but not the type of aggressive behaviour that Milgram or Zimbardo observed in their experiments. However, the characteristics of social dilemmas can be seen in various historical events. The atrocities of the Holocaust occurred without significant public protest by the German people. Some Germans objected to the treatment of Jews and other marginalised groups, but did nothing to stop the violence and even aided Nazis possibly because these “good” people saw unilateral action as dangerous and group action as unlikely, as in a social dilemma.

Documented histories of natural disasters also provide examples of anti-social behaviour resulting from apparently rational cost/benefit analyses. Looting and violence have occurred following disasters such as Cyclone Tracy in Australia in 1974 and Hurricane Katrina in the U.S. in 2005. A number of conditions following disasters seem to encourage anti-social behaviour. First, individuals are often desperate to survive and loot for food, water, and shelter. Second, the ability of law enforcement is diminished by lack of communications, resources, and severe conditions. Third, individuals are under great stress from fright, fatigue, and disorientation. Fourth, once crimes begin, one might believe that if he or she does not steal a particular good, it will either be wasted or stolen by another. Fifth, individuals who have lost property in the disaster might loot to lessen its negative impact. One or more of these conditions appear to conspire following a disaster to produce fairly extreme anti-social behaviour in otherwise “good” people (Green, 2007).

Just World

The just world theory provides another explanation for why normally well-behaved individuals behave poorly. This theory reflects evidence that humans have a need to bring their beliefs about what is right into conformity with what they see in the world. In other words, people want to believe in a just world. An individual's

desire for consistency sometimes appears to lead to efforts to modify either his or her reality or beliefs. The just world theory explains the latter.

In 1980, Lerner proposed that when evidence that the world is not just presents itself, people often feel threatened and try to reduce such threats. In various studies, Lerner has demonstrated that subjects tend to denigrate those who encounter misfortune. For example, in one study, Lerner and a colleague showed subjects a videotape of a simulated learning experiment in which it appeared that the participants received electric shocks. Lerner found that subjects tended to have lower opinions of these victimised participants (Hafer and Begue, 2005, Andrea and Velasquez, 1990).

Bystander Effect

Not only do “good” people sometimes lack sympathy for innocent victims, bystanders who might be sympathetic to victims might nevertheless avoid helping them. Social psychologists Darley and Latané conducted a series of experiments in which subjects were exposed to an individual in need of help. They found that the larger the number of bystanders, the less likely it was that someone would help the victim. A number of explanations have been offered for the inaction of bystanders, including: bystanders assume that if no-one is doing anything, everything must be alright (also called pluralistic ignorance); bystanders believe others will be more capable helpers; or bystanders feel insecure helping with others watching (Latané and Nida, 1981).

Darley and Latane’s research was prompted by the now famous case of Kitty Genovese in New York City in 1964. Genovese was stabbed outside her apartment building, and the *New York Times* later reported that 38 witnesses heard her cries for help but did nothing. In actuality, according to court documents, there were fewer witnesses and not all were passive. However, the validity of the bystander effect is supported by studies of helping behaviour in which researchers varied the nature of the precipitating incident; the ambiguity of the helping situation; characteristics of the subjects, victims, and other bystanders; the amount and kinds of communication among subjects; and type of setting (laboratory or field). Reviewing such research, Latané and Nida concluded, “the social inhibition of helping is a remarkably consistent phenomenon . . . victims are more likely to receive assistance when only a single individual witnesses the emergency.” (Fischer et al., 2011, Latané and Nida, 1981, Manning et al., 2007).

Crowd and de-individuation theories maintain that the presence of a group can not only inhibit helping behaviour, but cause violent behaviour by diminishing awareness of self, which in turn, diminishes self-restraint and normative regulation of behaviour. However, a meta-analysis, which examined 60 tests of the de-individuation theory found insufficient support for the theory (Postmes and Spears, 1998).

Summary

Chapter 2 provides examples, from history and seminal studies, of individuals who typically behave pro-socially behaving in an anti-social manner under particular circumstances.

The influence of leaders and group norms on anti-social behaviour is examined through the cases of Hitler's Nazi Germany, the My Lai massacre by U.S. soldiers during the Vietnam War, and torture of detainees in the U.S. Army Abu Ghraib prison during the war in Iraq. These cases suggest that charismatic leadership and stressful circumstances can breed anti-social behaviour. However, seminal experiments by Zimbardo and Milgram provide evidence that authority, on its own, is a powerful influence on behaviour.

The chapter also focused on circumstances—including social dilemmas and natural disasters—which appear to make anti-social behavior a rational choice. Social dilemmas are situations in which individuals make decisions based on self-interest due to their lack of confidence that others will join with them in decisions that benefit the collective. Behaving pro-socially on a unilateral basis under social dilemma conditions can be ineffective or even dangerous for an individual. Social dilemmas help to explain why people who think of themselves as altruistic and concerned about others, might nevertheless fail to act in a cooperative manner. Documented histories of natural disasters—such as Cyclone Tracy in Australia and Hurricane Katrina in the U.S.—also provide examples of anti-social behaviour resulting from apparently rational assessments of the benefits of looting versus the costs.

The just world theory provides another explanation for why normally well-behaved individuals behave poorly. This theory reflects evidence that humans have a need to bring their beliefs about what is right into conformity with what they see in the world. For example, research by Lerner demonstrates that subjects tend to denigrate those who encounter misfortune and thus see them as deserving of their fate.

Finally, experiments by Darley and Latané provide evidence that normally well-behaved individuals often refrain from helping a stranger in need in the presence of other bystanders. A number of explanations have been offered for the inaction of bystanders during crises, including: bystanders assume that if no-one is doing anything, everything must be alright (also called pluralistic ignorance); bystanders believe others will be more capable helpers; or bystanders feel insecure helping with others watching.

Chapter Three: “Bad” People Behaving Well

As noted, finding examples of “good” people behaving poorly is easier than finding examples of “bad” people behaving well. Perhaps the most obvious reason is that there are fewer “bad” people than “good”. While most people behave anti-socially at some point in their lives, most of this behaviour is not of a serious nature and does not persist for years. Surveys of adolescent boys suggest that 50 to 80 per cent participate in anti-social behaviour at some time, but only a small minority, at the most 10 per cent, qualify as persistent offenders. Such offenders often are exposed to a combination of serious environmental and genetic risks (Rutter et al., 1998).

A 1995 survey of a national random sample of 14-25 year olds in the U.K. found that three per cent of young offenders were responsible for 26 per cent of self-reported offences in one year (Graham and Bowling, 1995). Other studies, based on both government records and self-reports, have produced similar findings suggesting that a small percentage of offenders (usually less than 10 per cent of a sample) account for a large percentage of crimes, usually between 20 and 50 per cent (Farrington and West, 1993, Flood-Page et al., 2000). Such statistics suggest that 50 to 80 per cent of offending is not being conducted by “bad” people (i.e. the persistent offenders), but rather by the rest of the population or “good” people.

Although difficult, it is possible to find examples of formerly “bad” people behaving well. Not included in this discussion are cases when “bad” people only *appear* to behave pro-socially. For example, street gangs sometimes give parties for their communities to buy loyalty rather than to express concern. Also not included are examples of usually anti-social individuals simply not acting anti-socially. Evidence shows that anti-social behaviour is often episodic and dependent on context. There is limited evidence on the frequency of anti-social behaviour among those prone to it (Loeber and Stouthamer-Loeber, 1998). However, the Cambridge Study in Delinquent Development found that, based on self-reported offences of 411 males over time, the average male at 15-18 was committing 5.93 crimes per year (Farrington, 1983). Thus even during a period of life when boys are prone to anti-social behaviour, most were not acting illegally most of the time. This chapter also avoids cases of individuals who used violence to promote equality. Examples include Nelson Mandela in South Africa and Gerry Adams in Northern Ireland. They went on to become peaceful, mainstream politicians, but their transformations do not appear to result from immediate social context, but rather from broader societal changes.

The discussion that follows is organised by the type of influences that appear to effect change in behaviour of “bad” people including leaders, social environments, empathy and empowerment, and rational choices.

Leaders

Just as “good” people are sometimes influenced by those in authority to act anti-socially, so too are “bad” people influenced to behave pro-socially. However,

whereas the examples of the Milgram and Stanford experiments suggest that authority figures without strong credentials can significantly influence behaviour of others, the examples below involve credentialed and powerful leaders. Perhaps more authoritative leaders are necessary to foster good behaviour in typically anti-social individuals because such individuals have often been repeatedly exposed to negative influences (as discussed above). Additionally, the apparent modest effects of many anti-violence interventions suggests the difficulty of fostering good behaviour among “bad” individuals and the need for more highly skilled leadership (Rutter et al., 1998).

Charismatic and influential leaders like Mohandas Gandhi, Martin Luther King, and Aung San Suu Kyi have inspired the poor and oppressed, some of whom might otherwise resort to violence, to behave in a peaceful, non-violent manner. While poverty might not cause violence, it appears to increase the prospect of aggression. There is ample research that demonstrates a strong association between poverty and violence (Berger, 2005, Kotulak, 1997, Resko, 2008, Rutter et al., 1998). Sampson, Raudenbush, and Earls studied poor Chicago neighbourhoods in the late 1990s and found that as alienation, exploitation, and dependency increased, so did violence (Sampson et al., 1997a). This explanation reflects explanations for temporary anti-social behaviour following natural disasters. In some ways, violent or illegal behaviour is a rational response to unjust and extreme circumstances. Black nationalists in the U.S., who advocated violence as a way to assert power and independence, took this perspective. Malcolm X argued that if the government was unwilling or unable to protect African Americans, they should protect themselves. He rejected the idea of non-violence and instead encouraged African Americans to use any means necessary to protect themselves from racism (Lomax, 1963). More recent research suggests that the experience of poverty affects brain chemistry. Reviewing research in this area, Kotulak concludes that “threatening environments . . . can trigger serotonin and noradrenaline imbalances in genetically susceptible people, laying the biochemical foundation for a lifetime of violent behaviour (Kotulak, 1997).”

Leaders like Martin Luther King, however, appeared to be able to counteract violent tendencies wrought by poverty and powerlessness. His influence and charisma, like that of Hitler, might have arisen from the strength of his personal convictions, his gift for oratory, and his ability to train others. Perhaps as a result of these three factors, he was able to set a group norm, which perpetuated non-violent behaviour.

King believed that every person holds the potential for good or evil, and he cast the civil rights movement not as a battle between races but between justice and injustice. In his mind, it was a struggle for everyone to realise the good within themselves and to help create a just world (King Jr., 1957). He also believed that violence leads to further violence, and thus peaceful means were the only way to end oppression. Also, like Hitler, he had a strong belief that his struggle and that of his followers was destined. Further, he maintained that the ways of non-violence had the power to convert both the oppressor and the oppressed (King Jr., 1960).

King’s power to inspire through oratory is legendary. Those who heard him speak were impressed by how he stirred African Americans as well as others. "I was

amazed, coming out of Memphis, Tennessee, just out of college, at the number of white people that were there”, recalled one onlooker, "As far as the eye could see there were people. . . I'd never seen the likes of that kind of outpouring”, recalled another (Sullivan, 2008).

King, like Hitler, also recognised a need to train his followers' behaviour to counteract violent impulses. In 1963, King said that, had the philosophy of non-violence not emerged, “by now many streets of the south would, I am convinced, be flowing with blood (King Jr., 1963).” King used persuasive speeches and large demonstrations (in the form of marches, protests, and boycotts) to not only influence policy-makers, but also to persuade and train current and potential civil rights activists in the ways of non-violence (King Jr., 1960).

Charismatic authority is sometimes described as being derived from a higher power. Formally “bad” individuals sometimes credit such a leader for their reformation and sometimes they ascribe it directly to God or another supreme authority. God is considered in many religions as not only omniscient but also having the power to absolve individuals for sins and protect them from eternal damnation. Redemption is a common idea in many world religions. Additionally, for those who believe God to be the ultimate authority, God provides the most trustworthy course of action on how to gain redemption.

Religious practice tends to have a rehabilitative effect on criminal offenders according to a variety of studies. O'Connor and Perreyclear, for example, collected data on the religious participation of 1,579 inmates in a medium/maximum security prison in South Carolina in the U.S. They found that, controlling for demographic variables as well as those related to criminal history, as inmates' participation in religious activities increased, their likelihood of committing in-prison infractions significantly decreased. Drawing on theories of religious conversion as well as social attachment and social learning theory, the authors hypothesise that religion provides an outlet for the desire to have a meaningful connection with others and with God, as well as connections with pro-social others (O'Connor and Pallone, 2003).

Some “bad” individuals, however, appear more influenced by a different type of authority than God. Many programmes designed to reform anti-social individuals employ ex-offenders as role models. For example, CeaseFire, a violence prevention programme in Chicago, employs “credible messengers,” individuals from the community, often former gang members. CeaseFire maintains that such individuals can not only find potential offenders more easily than others (due to their knowledge of and acceptance in the community) but also can be more persuasive in their appeals for peace because of their own rehabilitation. Other U.S. cities, such as New York and Los Angeles, have employed gang intervention specialists in a similar manner and the results appear promising (Gumbel, 2007).

Social Environments

In addition to leaders and the norms they foster in groups, groups and social environments themselves appear to powerfully influence behaviour. The Cambridge Study in Delinquent Development, cited above, provides an example. It was a

longitudinal study of boys living in an inner-city area of London with high rates of delinquency. By early adulthood, some subjects had moved. Osborn found that, even after controlling for prior behaviour and current attitudes, the young men who had moved outside of London had significantly lower rates of conviction and also reported lower levels of anti-social behaviour than those who had not moved. Osborn concludes that the change in opportunities for crime, rather than any actual change in attitude, probably accounts for the change in behaviour (Osborn, 1980).

Other research has demonstrated “turning-point effects.” Rutter and others have described experiences in adulthood which appear to dramatically alter a trend of anti-social behaviour begun in childhood (Rutter et al., 1998). For example, several studies have demonstrated the impact of a harmonious marriage or stable employment on behaviour. Controlling for measurement error and possible confounding factors (such as prior behaviour or life circumstances), evidence suggests that high-risk juvenile offenders in supportive marriages to non-deviant partners were more likely to change their behaviour than similar individuals who were not married or were in less supportive marriages. Rutter suggests that the informal social controls, exerted in adult relationships as well as changes in life circumstances often associated with changes in peer group and social network, limit the opportunities for anti-social behaviour and that such associations might also alter one’s attitudes and expectations of his or herself (Rutter et al., 1998).

Empathy And Empowerment

Thus far, the examples of “bad” people behaving well have focused on exposure to “good” models, in the form of an influential individual or a social norm. Another type of influence that might change behaviour is exposure to a victim. Restorative justice theory emphasises repairing the harm caused or revealed by criminal behaviour and, by doing so, breaking the cycle of revenge. Revengeful rage, according to this view, results from a failure to connect in other ways with the object of one's anger. The theory maintains that such restoration can be accomplished by involving offenders, victims, and community members in a discussion about the crime and its consequences and about steps that the offender should take to make amends. Restorative justice has been employed in international peacemaking tribunals such as South Africa’s Truth and Reconciliation Commission and in criminal and juvenile justice systems, schools, social services and communities (Barak, 2003, Braithwaite, 1999). The research on restorative justice is not extensive and the evidence that exists is not conclusive. Whereas some studies have found that these practices tend to reduce recidivism, others show no effect on offenders’ future behaviour (Braithwaite, 1999).

Some experimental prison systems have provided evidence that empathy and empowerment can be powerful catalysts for change. HM Prison in Glasgow, Scotland, housed the Barlinnie Special Unit for two decades. The unit included some of the most hardened criminals, and was run on two basic principles: 1) make life inside the unit, to the greatest degree possible, similar to life outside of prison and 2) people respond well when treated well. Prisoners had considerable influence over their lives in the unit, but were also held responsible for their own behaviour and that of their peers. For example, during regular community meetings, prisoners

collectively decided on the consequences for peers who did not comply with the unit regime.

David Cooke conducted a systematic case-study of all 25 prisoners who had experienced the regime by 1986 and found much lower frequency of violence within prison than would be expected among formerly violent and disruptive prisoners. Additionally, the change in behaviour was often fairly rapid, beginning almost at entry into the unit. Although it is unclear what factors might have caused these changes, Cooke speculates that the amount of autonomy granted to prisoners tended to diffuse anti-authoritarian impulses which often lead to violence. He also noted that the social norms established through community meetings further imposed social control of behaviour (Cooke, 1989). Two prospective studies compared a cohort of inmates at a similar prison in the U.K., Grendon, to prisoners chosen for Grendon who were not admitted. Both studies found that prisoners in the programme for 18 months or more were less likely to be reconvicted than their non-Grendon counterparts. The difference in reconviction rates was between 20 and 25 percent (Wilson and McCabe, 2002).

The famous murderer turned artist, author, and activist, Jimmy Boyle, attributes his change to the Barlinnie Unit (Brigland, 2000). In his autobiography, Boyle describes brutal treatment he encountered in traditional prisons. He recounts how prisoners bribed guards for paint to brighten dirty cells and the harsh punishment they received for doing so. By contrast, the guards in Barlinnie worked alongside prisoners to paint the walls. He describes being trusted with tools and being self-conscious about how he lifted them so as not to raise the suspicions of the guards. "It was as though I had to relearn how to be at ease and to live again alongside other people. I had been so used to living in a world of deceit and enmity that it was difficult to have an innocent conversation with a member of staff without trying to find hidden meanings." The adjustment to the new, more accepting, environment was so difficult for Boyle that he asked to be transferred back to a regular prison shortly after arriving at the unit. However, his request was denied, and he subsequently began to learn how to be responsible for others as well as for himself (Boyle, 1977).

The Stanford prison experiments described earlier, like Boyles' description of traditional prisons, suggest how easily the dehumanising process can be set in motion. The Barlinnie experiment suggests that such a process can be reversed, although not easily. Boyle admits, "I've experienced all sorts of punishments in my life and all have been very easy in comparison with the Community hot seat. The idea of having done something that will have an affect on your friends and then having to face those friends and explain your behaviour is very heavy, especially when you have to work and live alongside them . . . (Boyle, 1977)"..

The positive atmosphere that arose in the Barlinnie Special Unit might be described by Felton Earls as "collective efficacy." Collective efficacy is social cohesion among group members combined with their willingness to intervene on behalf of the common good. Earls, Sampson, and Raudenbush found evidence, through an extensive study of 343 neighbourhoods in the U.S. city of Chicago, that children growing up in communities rich in "collective efficacy" – even those who

displayed many other risk factors, such as poverty or a lone parent – fared better than those living without it.

Collective efficacy is a variation on a concept known as "self-efficacy", an idea introduced by Albert Bandura. Bandura predicted that individuals are capable of overcoming disadvantages if they believe their actions will make a difference in their lives. "A resilient sense of efficacy enables individuals to do extraordinary things by productive use of their skills in the face of overwhelming obstacles", according to Bandura. Collective efficacy emphasises the capacity of residents to overcome obstacles if they share expectations and work with others for the common good (Press, 2007).

Prior to this study, the conventional wisdom was that poverty and race were the primary predictors of violence in neighbourhoods. This work showed, on the contrary, that there were poor, black neighbourhoods with lower rates of violence than white, middle-class neighbourhoods. What distinguished them were their varying levels of collective efficacy. Communities that appeared to have the most difficulty maintaining collective efficacy were those with high rates of residential mobility, which tend to break down or prevent the formation of social ties. Additionally, the sense of powerlessness in neighbourhoods with high levels of concentrated poverty appeared to prevent collective action (Sampson et al., 1997b).

Earles and his colleagues suggest that collective efficacy allows groups to exert social control, the capacity to regulate its members according to collective, as opposed to forced, goals. Additionally, they maintain that one central goal of most residents in most neighbourhoods is to live in safe and orderly environments. Similarly, Cooke recounts that one of the first rules set by prisoners in the Barlinnie Special Unit was that all violent behaviour was unacceptable, suggesting that even those who had been perpetrators of violence desire to live peacefully among others.

The concept of collective efficacy is related to social dilemmas. Whereas social dilemmas appear to foster rational decisions to behave anti-socially among typically "good" people, collective efficacy appears to foster rational decisions to behave pro-socially, even among those who often behave anti-socially. Both concepts suggest that when group members' trust and feel responsible for one another, they behave well and that, without such relationships, individuals tend to behave selfishly, regardless of their impact on others.

If collective efficacy is an aspect of the Barlinnie Special Unit and Grendon programmes that significantly contribute to a change in behaviour (this is not clear from existing research), then it would seem to stand in contrast to findings by Thomas Dishion and others which suggest that assembling high-risk individuals can worsen their behaviour. Dishion has described how a process called "deviancy training" can lead to an escalation in anti-social behaviour among peers. Deviancy training involves contingent positive reaction (such as laughter) to talk about breaking rules and lack of reinforcement for normative talk. Various research findings suggest the influence of deviancy training. For example, deviancy training accounted for increases in self-reported delinquency from ages 14 to 16 (Dishion et al., 1995). Additionally, Patterson, Dishion, and Yoerger (1999) found that deviancy training during adolescence accounted for 35 per cent of the variation in young adult

maladjustment (specifically, sexual promiscuity, substance abuse, relationship problems, and adult convictions) five years later. Based on such results, Dishion concludes that aggregating peers, under some circumstances, can produce short- and long-term iatrogenic effects. He also calls for more research to understand why group settings can have detrimental effects on the people they are intended to help (Dishion et al., 1999).

Another important question is why some group settings, such as Grendon and Barlinnie, appear to have the opposite effect on some group members. Collective efficacy might be a key factor. Another important factor could be that Grendon and Barlinnie are communities which adult participants enter voluntarily and with the intention of self-reform.

Rational Choices

As the discussions on social dilemmas and collective efficacy above suggest, in some circumstances, anti-social behaviour appears to be quite rational. Some interventions thus appeal to rational thought. CeaseFire, the anti-violence programme mentioned above, employs “violence interrupters” to break cycles of violence, often by addressing the rational, if not ethical, side of potential assailants. Interrupters might, for example, convince gang members, eager for revenge after a shooting, that warfare is bad for their drugs business and may attract a police crackdown (Skogan et al., 2008).

Some interventions for parents of children behaving anti-socially are designed to help parents create home environments in which good behaviour, rather than bad, is the rational choice. Research suggests that parents can not only provide a genetic proclivity to be aggressive, they can also train their children in this direction by not providing consistent consequences for anti-social behaviour, not encouraging pro-social behaviour, and creating a home environment in which anti-social behaviour is functional. For example, in some families, coercive behaviour is more effective in ending conflict than is pro-social behaviour. Evidence suggests that parents can be trained to create home environments in which aggression becomes less functional and pro-social behaviour leads to greater rewards (Patterson, 2008).

Cognitive behavioural therapy is based, in part, on the idea of that unhealthy feelings and behaviours are the result of rational responses to misperceptions of one’s environment. Therapists aim to help individuals to make more accurate assessments of their environments, understand how outside stimuli affect their behaviours, and change their responses to environmental factors in ways that promote healthy, pro-social behavior (Ellis, 2001).

As noted, the examples of “bad” people behaving well are not as dramatic as the cases of “good” people behaving poorly. The changes are more gradual. However, these examples do demonstrate the apparent influence of context on behaviour of even individuals with a strong propensity to act anti-socially. The examples also demonstrate that common human desires or goals – to protect oneself

from harm or criticism, to garner acceptance or praise from leaders and peers in a group, and to empower oneself— can be accomplished through both pro-social and anti-social means and that social context often provides the means by which such desires are fulfilled.

Some leaders appear to be able to create a social context that leads to either peaceful or violent behaviour. Martin Luther King and Malcolm X were leaders of those facing the same social injustices but their followers behaved quite differently. Jimmy Boyle strove to protect himself when he lived in a “world of deceit and enmity” but changed his behaviour when his context changed, and he began to trust and feel responsible for others.

On a less dramatic level, a “good” child witnessing bullying might refrain from helping a victim—or even join in the bullying—if he thinks standing up to a bully by himself would be foolish. This type of pro-social behaviour would probably be ineffective, and it might make him the next victim. Such a rationale assessment of the social context is an example of a social dilemma and is the focus of the research described in subsequent chapters.

Summary

Finding examples of “good” people behaving poorly is easier than finding examples of “bad” people behaving well. Perhaps the most obvious reason is that there are fewer “bad” people than “good.” While most people behave anti-socially at some point in their lives, most of this behaviour is not of a serious nature and does not persist for years.

Like the previous chapter, this chapter focuses on the influence of leaders on behaviour, with a particular focus on how Martin Luther King inspired poor and powerless individuals, who might otherwise have behaved violently, to protest in a non-violent manner. Also considered is the influence of other credible authority figures, such as God or ex-offenders, on “bad” people”. These cases suggest the importance of leaders’ credentials and charisma as well as their ability to connect formerly anti-social individuals with pro-social ones.

In addition to leaders, groups and social environments also appear to powerfully influence behaviour. Research suggests that moving to a new community or marrying someone who behaves pro-socially can have dramatic influences on behaviour, possibly through the influence of social norms.

Restorative justice strategies attempt to change behaviour by exposing offenders to their victims and thereby promoting empathy. The research on restorative justice, however, is not extensive, and the evidence that exists is not conclusive. Some experimental prison systems have provided evidence that empathy, along with empowerment, can be a powerful catalyst for change. The famous murderer turned artist, author, and activist, Jimmy Boyle, attributes his change to such a system, and some research evidence supports the positive effect of these regimes on prisoners who volunteer to participate.

A key aspect of the prison reforms might be the sense of collective efficacy that they engender. Collective efficacy is social cohesion among group members combined with their willingness to intervene on behalf of the common good. Research on various neighbourhoods in Chicago in the U.S. suggests that there are poor, African American neighbourhoods with lower rates of violence than white, middle-class neighbourhoods. What distinguishes these communities are their varying levels of collective efficacy. As the discussions of social dilemmas and collective efficacy suggest, in some circumstances, anti-social behaviour appears to be quite rational. Some interventions appeal to rational thought, such as programmes which employ “violence interrupters” to break cycles of violence, often by addressing the rational, if not ethical, side of potential assailants.

Chapter Four: Models Of Pro-Social And Anti-Social Behaviour

Despite evidence of the impact of one's immediate social context on even long-standing, well-established behaviour, most models of behaviour do not consider the immediate or recent context. Rather, only long-term environmental influences are included. The first part of this chapter describes models for predicting both pro-social and anti-social behaviour that take into consideration immediate social context. To further clarify the models, the next part of the chapter considers how four of the historical cases, described in Chapters Two and Three, fit the proposed models. The chapter ends with a brief note about the implications of the models for practice. Further discussion of implications appears in the final chapters of the thesis.

The Models

The simple models, described below, provide a starting point for inquiry into the influences of factors related to immediate social context on behaviour. Evidence from existing and future research is needed to refine the models. The models will be considered again, at the end of the thesis, in light of the study on bullying and social dilemmas.

According to the simple models (which also appear in graphic form in Figures A and B), when considering who behaves *pro-socially*, attention should be given to two groups:

- A. Individuals with low anti-social potential (low risk + strong protective factors) in either weak group situations or strong ones that promote pro-social behaviour, *and*
- B. Individuals with high anti-social potential (high risk + weak protective factors) in strong group situations that promote pro-social behaviour.

Additionally, when considering who behaves *anti-socially*, attention should be given to:

- A. Individuals with high anti-social potential (high risk + weak protective factors) in either weak group situations or strong ones that promote anti-social behaviour, *and*
- B. Individuals with low anti-social potential (low risk + strong protective factors) in strong group situations that promote anti-social behaviour.

As will be discussed more thoroughly in Chapter Five, a risk factor is any influence that increases the probability of onset, digression to a more serious state, or the maintenance of a problem condition. Protective factors are those internal and external forces that help children resist or ameliorate risk (Fraser, 2004).

Strong group situations are defined as those that provide clear cues regarding acceptable or productive (although not necessarily pro-social) behaviour. People within such social contexts tend to display behaviour which is acceptable or productive in that context. Thus, drawing on examples from the prior discussion, strong situations can involve a charismatic leader calling on a group to behave in a

particular way or clear elements of a social dilemma (i.e. unilateral action is ineffective, and group action is unlikely.) Weak situations, by contrast, lack such cues, and tend to be less structured, allowing for a wider range of behaviour. Individual differences in personality thus would presumably be more apparent in weak situations (Deaux and Major, 1987, Krahe, 1992).

In brief, the traditional risk and protective factor perspective (discussed in Chapter Five) predicts that “good” people will behave well and “bad” people will behave poorly over time. The main focus of research in this area is on what constitutes a “good” and a “bad” person or, in other words, what risks and protective factors predict good and bad outcomes. Once these predictors are identified, practitioners then work on reducing risks or increasing protective factors.

Those who view anti-social behaviour from a risk and protective factor perspective have mainly focused on children in the A groups described above, those who are at high risk of anti-social behaviour. Individuals in the B groups (i.e. low risk individuals) often fall under the risk and protective factor radar. Yet their experiences could shed light on our understanding of behaviour in general and how to discourage bad behaviour and promote good behaviour. The models expand upon the risk and protective factor perspective in predicting pro-social and anti-social behaviour by including the influence of strong social situations on behaviour.

The models primarily predict current behaviour. But it is possible that experiences of non-typical behaviour under certain conditions can lead to a continuation of that behaviour under other conditions. Although the evidence is not clear on this issue and more research is needed, the impact of strong situations might alter an individual’s trajectory by: 1) leading one to different types of group contexts in the future, and/or by 2) prompting an individual to apply learning from a current context to future contexts.

In the former case, by behaving either pro-socially or anti-socially, an individual might learn of and gain access to situations in the future that involve other individuals who behave similarly. For example, a formerly poorly behaved child, who changes his behaviour after becoming religious and attending church, might seek out and be invited into other contexts that involve well-behaved children. These new social contexts would also serve to foster pro-social behaviour. Descriptions of the lives of anti-social individuals often show how their worlds become progressively distant from the worlds of those who behave more pro-socially. As Rutter describes, an individual displaying low level anti-social behaviour might lose pro-social friends, marry someone from his deviant peer group leading to marital discord, and have children during adolescence reducing his career opportunities (Rutter et al., 1998). A strong situation that influences behaviour in a positive direction could reverse such a trend. An example is the case of Jimmy Boyle who was first exposed to prison staff who treated him respectfully and then to an artistic community that treated him like a colleague.

Concerning the case of individuals applying learning in one context to another, it seems unlikely that an individual would transfer learning unless the later contexts support that learning. As will be discussed later in the thesis, learning theory states that behaviour is determined, in part, by temperament and in part by

prior learning which occurs through association, repetition, and reinforcement (Ruble and Goodnow, 1998, O'Connell et al., 1999). However, some have argued that research cited as support for learning theory often does not sufficiently control for the influence of genetics or situational cues (Harris, 2000, Harris, 1995, Pinker, 2003). Additionally, research on interventions designed to improve behaviour sometimes shows an effect in the context in which the intervention occurred but less often shows a behaviour change documented in other contexts (Harris, 1995, Little et al., 2005, Wierson and Forehand, 1994). Thus it is difficult to imagine that an individual who behaves in a non-typical way (e.g. the usually poorly behaved student who behaves well in the presence of a charismatic teacher) will persist in his or her non-typical behaviour unless some key aspects of earlier and later contexts are similar, such as social norms, explicit rules, or the presence of charismatic leaders.

Figure A: What Predicts Pro-Social Behaviour?

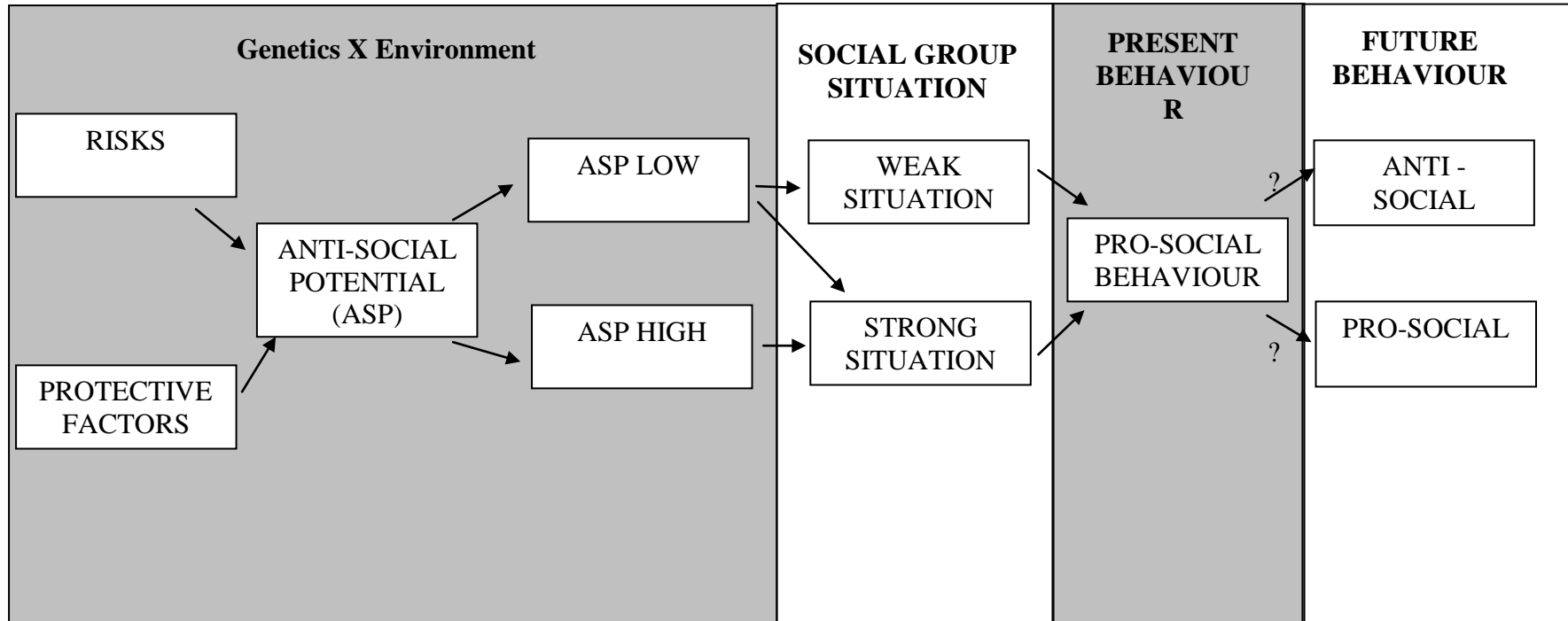
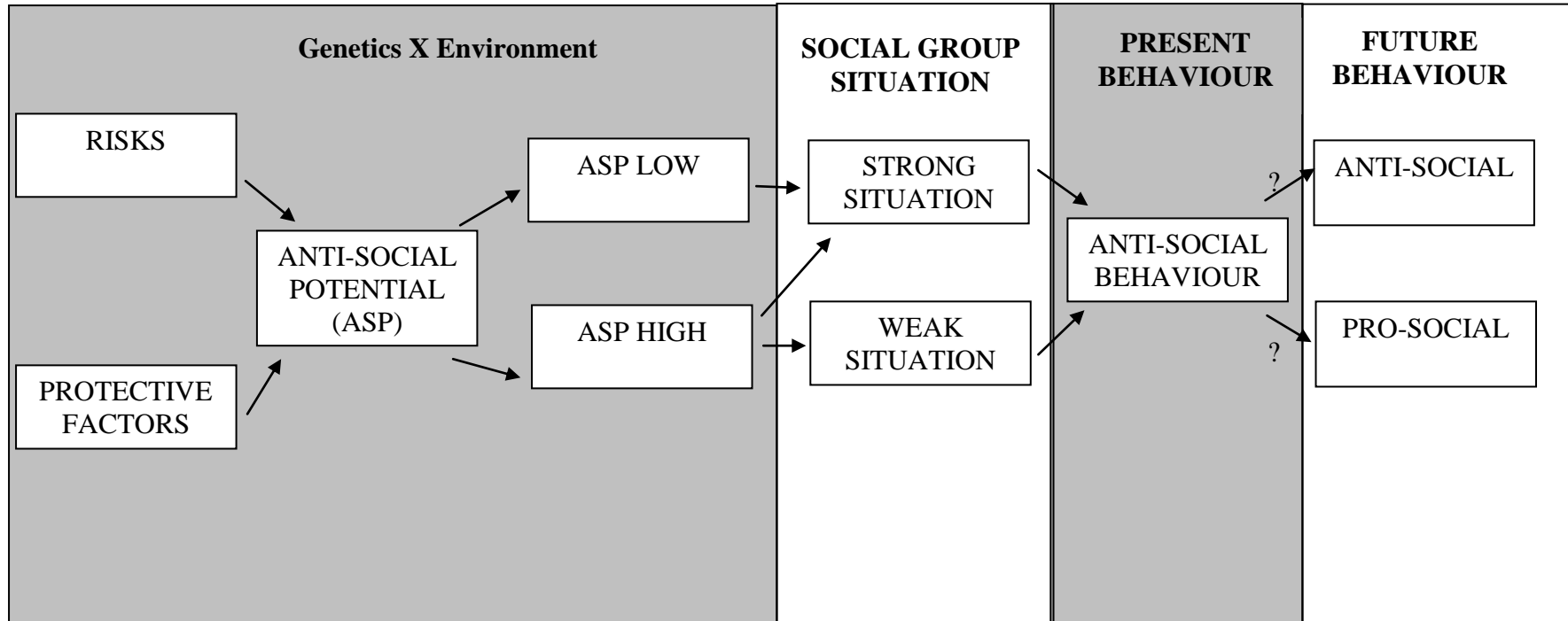


Figure B: What Predicts Anti-Social Behaviour?



Application of Cases to Models

To further clarify the models, Tables One and Two below suggest how the models apply to four cases described in the prior two chapters, including two cases of “good” people behaving anti-socially and two cases of “bad” people behaving pro-socially.

The case of a fictional civil rights worker in Table One reflects the discussion, above, of the impact of charismatic group leaders such as Martin Luther King. Following the model, the civil rights worker’s behaviour is assessed based on risk and protective factors. As noted in the discussion, the poverty of many African Americans in the U.S. during the civil rights movement (as well as today) increased the risk of criminal and other anti-social behaviour by increasing anger, frustration, and hopelessness. The risks of poverty in many cases would outweigh a protective factor, such as a two-parent family, making anti-social behaviour more likely. However, a person with this constellation of risk and protective factors exposed to the strong situation of the civil rights movement, including the leadership of Martin Luther King and others, could learn to channel his frustrations into non-violent protest through the persuasion and modelling of civil rights leaders and exposure to new group norms. As a result, the civil rights worker might also be more likely to interact respectfully with others in the movement and refrain from criminal behaviour. As noted above, it is not clear what factors might lead the civil rights worker to continue to behave pro-socially in the future and with individuals outside of the civil rights movement. The fifth and sixth columns, in gray, suggest possible pathways to either pro-social or anti-social long-term behaviour. If the civil rights worker stays in the movement long enough to form strong relationships with pro-social others linked to institutions like the National Association for the Advancement of Colored People or universities, he might become a member of these institutions which also promote pro-social behaviour. Additionally, skills learned in the context of the civil rights movement—including leadership skills—could be applied in new contexts, particularly contexts that support pro-social behaviour. However, should the civil rights worker have an immediate need for resources (for example a parent dies and his family is left without any income) before he gains a strong footing in a new context and consolidates new behaviour habits, then he might decide to steal, which, in turn could lead to greater association with anti-social others and less exposure to pro-social others and institutions. Alternatively, frustration with the slow progress of the civil rights movement might serve to increase his anger and lead, in turn, to association with institutions like the Black Nationalist Movement, which promotes violence, increasing the likelihood of future anti-social behaviour.

The case of Jimmy Boyle provides an historical example of how a strong situation apparently changed behaviour in both the short- and long-term. As noted in the discussion above and the table below, Boyle had many risk factors for anti-social behaviour including family criminality, poverty, and association with anti-social peers and few protective factors. A criminal career appears to have resulted from such conditions. However, when exposed to the strong situation of Barlinnie Prison

Special Unit, which included respect from prison staff and responsibility toward other inmates, Boyle began to behave pro-socially. As described in the first gray column on Table One, he continued to behave pro-socially when released from prison, perhaps because his experience in Barlinnie provided him with access to and relationships with pro-social others, such as artists who worked with prisoners. He also might have applied social skills learned at Barlinnie to contexts outside of the prison. However, as described in the second gray column on Table One, had Boyle not been able to support himself as a writer and artist and had not found other means of employment due to his criminal record, it is conceivable that he might have returned to crime, despite his extraordinary experience at Barlinnie.

Table Two provides two examples of how the model applies to typically pro-social individuals who behave anti-socially in a strong situation. The first is the historical example of Rudolph Höss, the Kommandant of the Auschwitz concentration camp. Following the model, his behaviour prior to the strong situation is assessed based on risk and protective factors. Regarding the former, Höss' father died during his adolescence. However, he appeared to have strong protective factors including a religious, middle-class upbringing and success in the military⁴. These factors might have been responsible for his pro-social behaviour before his association with the Nazis. When Höss was exposed to the charismatic and persuasive leadership of Hitler, Höss' beliefs and behaviour began to quickly change. According to his autobiography, Höss renounced his membership in the Catholic Church after hearing Hitler speak in 1922 (Höss and Paskuly, 1992). His membership in the higher echelons of the Nazi Party and his work in concentration camps provided additional training in the Nazi ideology and in efficient mass killing, leading to his overseeing the deaths of thousands of innocent people. His behaviour might have continued had the social context of Nazism continued. However, his social context changed dramatically when he was captured by the Allies and sentenced to death. Perhaps, once he was outside of the extreme situation of Auschwitz, he could see his behaviour differently and return to his earlier sense of morality. Before being hanged, he admitted his guilt.

The final example relates to the study conducted for this thesis. This case focuses on a fictional middle school student who normally behaves pro-socially but chooses to join in bullying initiated by others rather than to defend a victim. One might imagine that this child's protective factors clearly outweigh his risk factors. For example, he might have a supportive and stable family, pro-social friends, and even empathy for victims. On the risk factor side of the equation, he might also have some friends who sometimes or often behave anti-socially. When this child is exposed to a strong situation, one that includes the conditions of a social dilemma, he might behave anti-socially⁵. This student might continue to behave anti-socially in the future, in different contexts, if his support of bullying behaviour boosts his social status, particularly among anti-social peers and thus limits his interaction with pro-social peers. Additionally, he might apply his bullying skills in other contexts

⁴ As noted by Primo Levi as well as researchers such as Milgram, military training in conformity to leadership might be a risk factor for anti-social behaviour in some strong situations.

⁵ Conditions of a social dilemma in a bullying situation: 1) belief that unilateral action to defend victims would be dangerous or ineffective, 2) belief that group efforts could be more effective, and 3) belief that cooperation from others in an effort to defend a victim is unlikely

because he found them to be successful in one context. However, if the student is exposed to an intervention that helps to reduce or eliminate social dilemma conditions, he might be more willing to defend a victim or, at least, not join in the bullying. Alternatively, exposure to a wider range of social groups, once the student enters high school, might allow him greater access to social status through pro-social means.

Implications Of The Models For Practice

Two observations, described in this section of the thesis have important implications for how the models might inform future practice. The first observation is that, although the majority of people behave pro-socially most of the time, many documented offences (and presumably undocumented offences and other types of anti-social behaviour) are committed by “good” people (Graham and Bowling, 1995). The second observation is that, from the examples presented, it appears that it is easier to alter the trajectory of a “good person” than it is to alter that of a “bad person”. These observations suggest that the trajectory of those with low anti-social potential (or “good” people) as presented in the model might warrant more attention than they currently receive.

Certainly, there are many school-based programmes that aim to build general, school-wide cultures based on caring and respect and thereby reduce the anti-social behaviour of all students. However, there appears to be a dearth of programmes that specifically aim to prevent the common pitfalls for “good” children. One can imagine a child in a school that promotes caring who is nevertheless hesitant to defend a victim of bullying given the potential consequences to him or herself. Similarly, a charismatic peer might have a greater influence on behaviour than the school faculty. More effective interventions might include those that assess the reasons why “good” students behave poorly in a given environment and then work to restructure the environment so that children can fulfill their basic desires (to protect oneself from harm or criticism, to garner acceptance or praise from leaders and peers in a group, and to empower oneself) without behaving anti-socially. Moreover, when the majority of students are reliably behaving pro-socially, the “bad students” will have less peer support for anti-social behaviour. The final chapter will discuss how a school might institute specific measures to structure student interactions to prevent anti-social behaviour.

Summary

Despite evidence of the impact of one’s immediate social context on even long-standing, well-established behaviour, most models of behaviour do not consider the immediate or recent context. This chapter presents models of how immediate social contexts, along with long-term influences, affect both pro-social and anti-social behaviour. The models thus provide a method for considering the anti-social behaviour of “good” people and the pro-social behaviour of “bad” people under certain circumstances. To further clarify the models, the chapter ends with a discussion of how the models apply to four cases described in the prior two chapters, including two cases of “good” people behaving anti-socially and two cases of “bad” people behaving pro-socially.

The two models are quite simple and serve as a starting point for inquiry into the influences of factors related to immediate social context on behaviour. Evidence from existing and future research is needed to refine the models. School-based interventions that aim to reduce anti-social behaviour might use the models to consider the reasons why “good” students behave poorly in a given environment and then work to restructure the environment so that children can fulfill their basic desires (to protect oneself from harm or criticism, to garner acceptance or praise from leaders and peers in a group, and to empower oneself) without behaving anti-socially.

**

This section introduced the four basic, interrelated ideas that form the broad context for the thesis:

- Immediate group context can have a significant effect on behaviour.
- Research and practice have neglected the anti-social behaviour of “good people”.
- “Good” people are more susceptible to negative influences in their immediate social environments than are “bad” people to positive influences.
- A significant proportion of all anti-social behaviour is committed by “good” people.

These ideas were explored through a discussion of cases, drawn from history and seminal studies, of “good” people behaving poorly and “bad” people behaving well. This section also proposed models for predicting both pro-social and anti-social behaviour that take into consideration immediate social context. These simple models provide a starting point for inquiry into the influences of factors related to immediate social context on behaviour. The discussion now turns to a review of the literature relevant to the first of the four basic ideas concerning the impact of immediate group context on behaviour.

Table One: Application of Model (Figure A) to the Prediction of Pro-Social Behaviour Among Typically Anti-Social

Case	Risks > Protective Factors = High Anti-Social Potential	Strong Situation	Behaviour in Strong Situation: Pro-Social	Possible Future Behaviour: Pro-Social	Possible Future Behaviour: Anti-Social
Civil Rights Worker	<ul style="list-style-type: none"> Risk factors: Poverty and associated risks: overcrowded housing, violent neighbourhood, poor education Protective factors: Two- parent family 	<ul style="list-style-type: none"> Charismatic/persuasive leader Training in non-violence Pro-Social group norms 	<ul style="list-style-type: none"> Peaceful protests Respectful interactions with others Absence of criminal or other anti-social behaviour 	<ul style="list-style-type: none"> Involvement in civil rights movement opens avenues to participation and leadership in institutions which promote pro-social behaviour Involvement in civil rights movement provides opportunities to develop leadership skills, which can be applied in other contexts 	<ul style="list-style-type: none"> Immediate need for resources leads to crime, which, in turn, leads to associations with anti-social others and criminal record which limit future access to pro-social groups and institutions Frustration with slow progress of the civil rights movement and anger at the injustices of racism and poverty lead to participation in Black Nationalist Movement and to violent protests.
Jimmy Boyle	<ul style="list-style-type: none"> Risk factors: family criminality, anti-social peers, possible genetic impulsivity Protective factors: intelligence 	<ul style="list-style-type: none"> Barlinnie Prison Special Unit: culture of respect and trust among inmates and staff Empowerment Responsibility to peers Exposure to pro-social arts community 	<ul style="list-style-type: none"> Gainful employment as writer and artist 	<ul style="list-style-type: none"> Participation in pro-social groups and institutions leads to ties and marriage to pro-social others. Social skills (peaceful, respectful interaction) learned and practiced in Barlinnie applied in other situations. 	<ul style="list-style-type: none"> Unsuccessful in supporting himself as writer or artist after release from prison, finds no means of gainful employment due to criminal record Returns to crime and association with anti-social others

Table Two: Application of Model (Figure B) to the Prediction of Anti-Social Behaviour Among Typically Pro-Social

Case	Risks < Protective Factors = Low Anti-Social Potential	Strong Situation	Behaviour in Strong Situation: Anti-Social	Future Behaviour: Anti-Social	Future Behaviour: Pro-Social
Rudolph Höss	<ul style="list-style-type: none"> Protective factors: religious, middle-class upbringing, military honours Risk factors: father dies during his adolescence 	<ul style="list-style-type: none"> Charismatic/persuasive leadership Training in killing Reduced exposure to competing ideas because killing was secret 	<ul style="list-style-type: none"> Planning and overseeing of mass killings 	<ul style="list-style-type: none"> Continued killings had the Nazis been victorious and social context persisted 	<ul style="list-style-type: none"> Separation from extreme context of Auschwitz, return to earlier sense of morality and sense of guilt
Middle School Student Who Does not Defend Victims and Sometimes Joins in Bullying	<ul style="list-style-type: none"> Protective factors: supportive family, pro-social friends, empathy for victims Risk factors: some anti-social peers 	<p>Social Dilemma Conditions are present:</p> <ul style="list-style-type: none"> Unilateral action to defend victims is dangerous or ineffective Group efforts more effective Cooperation from others in an effort to defend a victim is unlikely <p>(Social dilemma conditions)</p>	<ul style="list-style-type: none"> Refraining from defence of victims Supports and sometimes joins in bullying to protect self and boost social status 	<ul style="list-style-type: none"> Support of bullying boosts social status, particularly among anti-social peers, exposure to pro-social peers reduced Applies bullying skills in other social contexts to gain status 	<ul style="list-style-type: none"> Intervention increases communication and trust among peers leading the student to be more willing to defend victims Gains access to wider range of social groups in high school allowing more access to social status through pro-social means

Part Two: Review Of Literature

This literature review, like the thesis as a whole, progresses from the general to the specific. To provide a broad context for understanding the literature relevant to the thesis, the review begins with an overview of the risk and protective factor perspective on anti-social behaviour, a perspective that has dominated research and practice in this area in recent years. Also to be considered are the limitations of perspectives on behaviour (including the risk and protective factor perspective) that give limited or no consideration to the impact of immediate situations. The ongoing bias in psychology and psychiatry, as well as other fields of study, toward individual factors over group or contextual factors is also discussed.

The next chapter highlights research on one contextual factor—the dynamics of social groups and their impact on behaviour. This chapter reviews studies related to goals, group norms, leadership and power structure, and group cohesion. Interventions designed to alter behaviour by changing group dynamics are also described.

The focus then narrows to behaviour in bullying situations, the type of anti-social behaviour that is the specific focus of the empirical study at the core of this thesis. Following discussion of what constitutes bullying and evidence on the prevalence of bullying among children, the chapter provides a detailed discussion of individual risk factors for bullying and for being victimised. The chapter also reviews literature on the relationship between social environments and children's behaviour with a particular focus on how social norms and social hierarchies affect the behaviour of young people in bullying situations.

Evidence from research on social hierarchies suggests that children, even those who usually behave pro-socially, sometimes behave anti-socially (by bullying, supporting a bully, or refraining from helping a victim) for rational reasons. The final chapter in this section examines these reasons in light of the concept of social dilemmas. This chapter will also consider how various factors in social dilemmas affect behaviour as well as strategies that tend to reduce anti-social behaviour in social dilemma situations.

Together, the chapters in this review suggest that individual factors--whether borne of genetics, environment, or the interplay of the two--are usually not sufficient for understanding any type of anti-social behaviour and that such behaviour is often influenced by the social dynamics in an individual's immediate context.

Chapter Five: Risk And Protective Factors Perspective And Anti-Social Behaviour

Key predictive factors in the models previously discussed are risk and protective factors. Current research and practice related to anti-social behaviour often focuses on such factors. A risk factor is any internal or external influence that increases the probability of onset, digression to a more serious state, or the maintenance of a problem condition. Risk factors are used to predict future outcomes. Evidence exists that different individual, family, school, neighbourhood, and contextual conditions produce different kinds of outcomes. Protective factors are those forces that help children resist or ameliorate risk. Research has identified common factors that place children at risk (such as poverty, racial discrimination, and poor parenting) and appear to protect children in high risk contexts (such as education, social support, and high self esteem) (Fraser, 2004).

This chapter will begin with a review of individual and psychosocial risk factors related to anti-social behaviour. It will also review the research methods commonly used when studying risk and protective factors, and intervention and prevention efforts based on this approach. The chapter will end with a discussion of the limitations of the risk and protective factor perspective and how research and practice might benefit from a greater emphasis on immediate environmental factors such as group dynamics.

Individual And Psychosocial Risk And Protective Factors Related To Anti-Social Behaviour

Research suggests that individual characteristics are more strongly associated with persistent anti-social behaviour that begins in early childhood and continues into adulthood than the more common form of anti-social behaviour, which is time-limited, often occurring during adolescence. Several individual characteristics, which probably arise in part from a child's genetic make-up, have been consistently shown to precede anti-social behaviour. These are hyperactivity, cognitive impairment, temperamental features (such as impulsivity), and distorted social information processing (i.e. misinterpreting social interactions as threatening) (Rutter, 2010, Rutter et al., 1998).

Rutter et al. stress that anti-social behaviour is usually the product of the interplay of people and their environments. For example, genetic make-up can make an individual more vulnerable to certain environmental stresses. Additionally, genetically influenced characteristics can affect the environments individuals choose and how other people respond to them, and these environments and people, in turn, affect the individual's behaviour. Although risk and protective factors usually appear in constellations, some factors are stronger predictors than others. Rutter et al. conclude, based on their review of the research, that hyperactivity is probably the strongest precursor of crime (Rutter, 2010, Rutter et al., 1998).

Environmental factors include the situations in which individuals live, work, play, etc. Many environmental risk factors for delinquency have been identified through research, including single-parent homes, abuse or neglect, poverty, and delinquent peers. Protective environmental factors include supportive parenting and pro-social peers. Determining whether the source of an influence is genetic or environmental can be challenging. Children raised by their biological parents are influenced not only by the genes they inherit from their parents but also by their parents' behaviour, which is, in part, influenced by genes. Analysing environmental effects is further complicated by the fact that children are not only affected by their surroundings, but also affect them (Rutter, 2010, Rutter et al., 1998).

A number of research findings point to the impact of environments on behaviour even when genetic or individual factors are carefully controlled, including twin and adoption studies on the influence of shared environment (i.e. the family environment shared by siblings that tends to make siblings more alike) and non-shared environment (other influences on behaviour that tend to affect siblings differently) on behaviour. Rutter also notes that there has been a significant increase in overall rates of anti-social behaviour in recent years and that such an increase, over a span of about 50 years, could not be explained by a change in the gene pool, which changes at a much slower rate. Finally, evaluations of interventions designed to change behaviour, particularly parenting behaviour, have produced evidence of efficacy. Some of these studies have found a dose-response relationship. Such a relationship suggests that the more an environmental risk factor was changed, the greater the change in the targeted behaviour (Rutter et al., 1998).

Although many studies have identified environmental conditions associated with anti-social behaviour, only a few factors have consistently been shown to predict (and thus possibly contribute to causing) anti-social behaviour. For example, family separations, institutionalisation, and abuse are probably not causes of poor behaviour, but rather associated with causes. Evidence suggests that harsh, coercive parents, teen parents, anti-social peers, and several other factors, however, probably contribute to anti-social behaviour. Additionally, evidence suggests that life stresses, like poverty or unemployment, usually accentuate pre-existing behavioural tendencies rather than completely alter them (Rutter et al., 1998).

Most anti-social behaviour fluctuates over time, depending on an individual's circumstances. Indeed, longitudinal data suggests that significant changes in children's social environment, including changes in peer group, neighbourhood, or school, can trigger "turning-point effects," as discussed in Chapter One. As also previously discussed, an individual's anti-social behaviour can lead to fewer pro-social friends and more anti-social peers who exacerbate one another's behaviour (Barak, 2003, Rutter et al., 1998).

Children's response to adversity is highly variable. Some children tend to thrive (including behaving in pro-social ways) despite adversity. The individual or psychosocial factors that promote such resiliency are of great research interest but the exact causes are not well understood. According to available evidence, the most resilient children are those who have one or more of the following protective factors: the lack of a genetic predisposition toward aggressive behaviour; intelligence (particularly the ability to effectively solve problems); ability to elicit positive

responses from others; stable, warm family relationships; good supervision; and positive school experiences including well-behaved peers (Rutter et al., 1998).

Risk And Protective Factor Approaches To Research And Intervention

Studies that aim to identify risk and protective factors and their relationships with behaviour often survey children, their parents, and their teachers. Studies that aim to distinguish genetic and environmental factors (both shared and non-shared) compare monozygotic to dizygotic twins or adopted to biological siblings. Pairs that share more of the same genetic make-up (monozygotic twin in the former case, biological siblings in the latter case) should appear more similar to one another on variables that are more governed by genetics.

Often, researchers employ cross-sectional studies that simply isolate correlations among various risk and protective factors and anti-social behaviour in one group of children. However, to understand the degree to which such factors (alone or in combination) contribute to anti-social behaviour, prospective, longitudinal research which follow subjects with and without carefully measured risk and protective factors is necessary (Fraser, 2004).

Unfortunately, even though common precursors of anti-social behaviour have been identified through research, it remains difficult to predict which children, among a large sample, will become persistent offenders. This difficulty might result from a poor understanding of protective factors and how they moderate trajectories of individuals. Farrington also stresses the need for more research on the causal chains that link risk and protective factors with later behaviour problems, particularly how various factors interact to create difficulties for children (Farrington, 2007).

Interventions based on the risk and protection factor approach usually are designed to counteract known risk factors for anti-social behaviour. Some approaches also aim to enhance known protective factors. The idea of identifying and minimising risks originated in medicine and public health (Farrington, 2007). An example of an intervention employing the risk and protective factor approach is Communities that Care (CtC). Developed by J. David Hawkins and Richard F. Catalano, CtC is being implemented in communities across the US and the UK. The CtC process begins with a survey of local, young people to identify risk and protective factors among adolescents. Based on this information, community leaders select tested, effective preventive interventions that address the specific concerns of local youth. Over time, repeated assessments of risk and protective factors are used to evaluate the effects of the prevention service system and to guide future planning (Brown et al., 2007).

Moving Beyond The Risk And Protective Factor Perspective

As noted, the risk and protective factor perspective has focused primarily on understanding and reforming individual attributes, whether genetic or environmental in origin. Less attention has gone to understanding and reforming social contexts or

situations, although leaders in the field, like Rutter and Farrington, stress the importance of such contexts. In 2007, Farrington noted:

Only recently have longitudinal researchers begun to pay sufficient attention to neighbourhood and community factors, and there is still a great need for them to investigate immediate situational influences on offending. . . Existing research tells us more about the development of criminal potential than about how that potential becomes the actuality of offending in any given situation. Research on immediate situational influences on offending should be included in new longitudinal studies, to link up the developmental and situational approaches (Farrington, 2007).

The focus on the individual reflects a long-term bias in research on behaviour. Until the late 1960s and early 1970s, personality or trait psychologists maintained that individuals have enduring traits that explain why they behave as they do across time and situations. Research based on the trait concept usually employs personality tests to determine individuals core traits. Allport, Cattell, and others have identified five basic personality dimensions: extraversion/introversion, friendliness/hostility, conscientiousness, neuroticism/emotional stability, and intellect (Krahe, 1992).

Mischel and others criticised this perspective, claiming that the evidence in support of consistent behaviour, across situations, was not convincing. He noted that average cross-situational coefficients are typically low but not zero (Mischel and Shoda, 1995, Mischel et al., 2005). The discrepancy between personality psychologists' assumptions and the data was termed the "personality paradox" and led to various attempts to resolve it. Some held onto the idea of dispositions or traits while acknowledging that situations also influence behaviour (Mischel and Shoda, 1995). Others, most notably behavioural geneticists, have looked for the biological bases for certain traits, and some have held that traits reside not in individuals but are instead conceptual categories that we use to understand others and guide our interactions with them (Krahe, 1992).

Mischel acknowledges that it is useful to understand individuals' general tendencies. However, he stresses that knowledge of such traits is often a clumsy tool for predicting behaviour in particular situations. He likens traits to overall climatic trends in meteorology, noting that while it is helpful to know that one city is generally colder than another, such knowledge is not sufficient to predict the weather in a particular city at a particular time (Mischel and Shoda, 1995).

Research by Lorenz et al. illuminates the difference between general behavioural tendencies and behaviour in specific situations. They note that there is often a low correlation between observation and self-report data. To understand this phenomenon, Lorenz et al. videotaped 292 couples during a discussion task. Then subjects were asked to report on their own behaviour and that of their partner during the discussion task and during the past month. The researchers found that correlations between observer ratings and questionnaire reports of hostile behaviour during the videotaped discussion were roughly twice the magnitude of the correlations between observer

rating and questionnaire reports on behaviour during the past month. These findings suggest that behaviour is affected not only by an enduring disposition but also by aspects of the immediate situation (Lorenz et al., 2007).

Correlations between parent and teacher reports on children's behaviour also are often low. This problem has been attributed to a lack of reliability or validity of parent and teacher report data. However, structural equation modelling methods suggest that there are genuine differences in child behaviours among different contexts, such as school and home. Fergusson and his colleagues, for example, examined data from the Christchurch Health and Development Study, a 25-year longitudinal study of a birth cohort of New Zealand children. Their data on 983 students fit a model showing the situation-specific influences on behaviour. Only 3.4 per cent had conduct problems according to both parents and teachers. The researchers conclude that the majority of childhood conduct problems are situation-specific and that only a minority of children have conduct problems that occur across contexts (Fergusson et al., 2009).

A body of evidence suggests that people in general, including children, behave according to goals that are affected by their context, specifically their social context. Zeman and Shipman, for example, presented hypothetical vignettes to second and fifth grade students to determine their goals regarding emotional regulation in different social contexts (with parents, with best friends, and with medium friends). They found that children endorsed more goals for regulating emotional displays with their peers than with parents, suggesting that they perceive parents to be more accepting of affective expressivity than peers. Children generally expected less understanding and emotional support from medium friends, and anticipated greater negative instrumental consequences for expressions of anger and sadness than they did with either parent (Zeman and Shipman, 1998).

A study by Salmivalli and Peets provided evidence that young people's goals depend not only on the type of peer they are interacting with, but on the specific peer they are interacting with and their perceptions of themselves and the peer. Based on a survey of 102 11-12 year olds, the researchers found that social goals as well as self- and peer-perceptions tended to be relationship-specific constructs. Subjects used some relationships to satisfy agency goals (those related to having others respect and admire you) and other relationships to satisfy communal goals (those related to a need for closeness) (Salmivalli and Peets, 2009).

Ames and Archer present evidence that teachers can foster classroom environments that affect students' goals and thus their behaviour. They suggest that classrooms either display a predominately performance goal orientation (where students are concerned about being able, about outperforming others, and about achieving success with little effort) or a predominately mastery goal orientation (where students are concerned about acquiring new skills, about the process of learning, and about using effort). Ames and Archer found that students who perceived an emphasis on mastery goals in the classroom reported using more effective strategies, preferred challenging tasks, had a more positive attitude toward the class, and had a stronger belief that success follows from one's effort than students who perceived performance goal orientations. The apparent effect of the

goal context remained even after the researchers controlled for students' perceptions of their own abilities (Ames and Archer, 1988, Garner, 1990).

Contextual factors also appear to affect how individuals behave as subjects in studies. Evidence suggests that many personality studies might have produced different results had they measured the impact of immediate context on subjects' goals and behaviour. To detect the impact of study contexts on subjects, Council and his colleagues altered testing in various ways. For example, many studies have found that adults who were sexually abused in childhood display significant psychopathology later in life. Council hypothesised that asking subjects about their childhood trauma at the outset of the survey would prime memories of victimisation and lead them to report more symptoms in their current lives. Indeed, they found that correlations between earlier sexual abuse and later pathology were substantial and significant when the trauma survey was presented first, but consistently non-significant when it was presented last. The contrasting results suggest that the context of the study (i.e. the order of the questions) prompted subjects' interest in presenting a consistent image to others, which in turn, affected how they responded to survey questions (Council, 1993).

Various researchers have noted that some situations appear to more strongly influence behaviour than others. As noted earlier, strong situations provide clear cues regarding acceptable behaviour while weak situations lack such cues allowing for a wider range of behaviour. Deaux and Major offer the example of a job interview as a strong situation in which the role of each person is clearly defined and expectations are fairly obvious (Deaux and Major, 1987, Krahe, 1992). Deaux and Major review the large body of experimental research that shows that public situations exert a stronger influence than private ones. For example, subjects tend to be more charitable toward others and to work harder when they believe they are being monitored by others (Deaux and Major, 1987).

Theoretical Perspectives On How Context Affects Behaviour

Having reviewed the key bodies of evidence pointing to the importance of social contexts for understanding behaviour, the discussion now turns to theories on how context, along with other factors, produce certain behaviours. As this review will show, most theories suggest a complex relationship among factors in producing behaviour.

Interactionists explain behaviour in terms of a continuous process of interaction between an individual and the situations he or she encounters. Cognitive and emotional factors are considered along with the psychological meaning of various situations (Krahe, 1992). A number of different theories that reflect this perspective are discussed below.

Mischel's cognitive-affective system theory of personality explains an individual's behaviour based on predictable patterns that vary according to the features of situations that are meaningful to him/her and that engage his or her key psychological qualities (Mischel and Shoda, 1995). Mischel explains the relationship between situation and behaviour as a conditional one. If certain

situational features exist, then a particular person can be predicted to act in a certain way unless new learning or biochemical changes have occurred. Thus, to understand an individual's behaviour according to the cognitive–affective system theory, one must understand when and why various cognitions and affects become activated in response to various contextual features (Mischel et al., 2005).

Athay and Darley describe an interaction-centered theory of personality. Like Mischel, they believe that various factors, specific to the actors and the situation, must be taken into account. They describe individuals as always trying to maximise the fit between the present situation and long-established routines. If possible, actors choose the efficient route of using old routines that worked in past situations similar to the present one. This strategy has the advantage of both giving actors a sense of control and competence while also making them predictable to others. Social norms also help to control interactions, making them more stable and predictable. Such predictability is important for the smooth functioning of communities according to Athay and Darley. However, they also note that when the goals of two or more actors' conflict, interactions are not smooth and predictable. Thus actors function best when they have the ability to adopt others' perspectives, assess and adjust their own behaviour, and perform in specified social roles (Athay and Darley, 1981).

The entire field of social psychology is committed to examining the effects of internal factors and aspects of social situations on behaviour, thought, and feeling. Also, some researchers in this area see groups as an important unit of analysis, possessing qualities and having influences that are greater than the sum of the group member parts. Groups have been described as influencing individual behaviour primarily through the production of norms. Groups usually include a number of different roles occupied by different people. Roles also affect individual behaviour, and they help the group to function well as a whole. Although the influence of norms and roles is common to most groups, other factors such as social facilitation, de-individuation, groupthink, social loafing, and minority influence arise in groups under particular circumstances and appear to influence behaviour. Social loafing, for example, is the tendency for people to exert less effort when working in a group toward a common goal than when they are individually responsible for accomplishing the goal (Hogg, 2001).

Ecological theory explains behaviour in terms of different environmental systems including: the “microsystem” or immediate environments such as family, school, peer group, and neighbourhood; “mesosystem” including a system of connections among immediate environments; “exosystem” including external environmental settings which only indirectly affect development, and “macrosystem” or the larger cultural context. Human development, according to ecological theory, occurs through processes of progressively more complex reciprocal interaction between an active, evolving bio-psychological human organism and the persons, objects, and symbols in its immediate external environment (Bronfenbrenner, 2001, Crooks et al., 2007).

Understanding The Bias Toward Dispositions And Past Situations

As noted, leaders in the risk and protective factor perspective have called for more attention to social situations. Rutter, for example, stresses that whether a variable acts as a risk or a protective factor depends on the circumstances. He also notes that although pro-social peer groups appear to be protective factors in most situations, there is limited evidence that the effects of support in one setting protects against adversities in another (Rutter et al., 1998). Additionally, and as described above, a number of theories emphasise the influence of group contexts on behaviour.

Despite such observations and theories, researchers, teachers, counsellors, parents and others concerned about children's behaviour continue to focus more on individual dispositions than on groups or social contexts. An understanding of this bias illuminates the barriers to greater attention to immediate situations in both research and practice. A number of possible explanations of the bias are reviewed below.

The tendency to look at individuals and their past experiences might be a type of "fundamental attribution error," which is the tendency of people to attribute others' behaviour to internal traits, while attributing their own behaviour to environmental factors in their current situation. Although the reason such errors occur is not known, the phenomena has been explained as resulting from perspective. Individuals are often more aware of situational factors—sometimes unseen forces such as social norms—affecting their own behaviour and less aware of unseen forces affecting others (Fiske, 2001, Harris, 2000, Jones, 1998). Swann has explained perceivers' tendency to ignore situational forces when considering others' behaviour in a different way. He notes that because people tend to interact with others in a limited number of settings, they might mistakes others' consistent behaviour to be more a product of their personalities than of their common situations (Swann, 1984).

Kulik, Sledge et al. also present evidence that individuals tend to ignore situational influences even on their own behaviour when they behave in ways that are consistent with their prior self-conceptions. Indeed subjects in their experimental studies tended to attribute their own behaviour to their dispositions regardless of whether they were in settings that were perceived generally to compel or inhibit the behaviour (Kulik et al., 1986).

The apparent difficulty of perceiving situational factors affecting behaviour of others and, sometimes ourselves, could create difficulty for researchers, teachers, counsellors, therapists and others who focus on child behaviour. It might be counter-intuitive for them to focus on reforming situations rather than on reforming individuals.

Another possible reason for the bias toward dispositions is the difficulty of studying groups in a systematic way. People interact in groups. Thus their behaviour is always interdependent to a certain degree. Such interdependence violates assumptions of independence of most statistical tests. Unfortunately, solving this

problem by using the group as the unit of analysis results in a loss of statistical power. A relatively new statistical method helps to solve this problem. Multilevel modelling (employed in the empirical study described in later chapters) has made studying groups easier by allowing researchers to look at relationships among individual behaviour and both individual *and* group characteristics, without violating the key assumptions of regression (Bryk and Raudenbush, 1992). However, even with such statistical advances, understanding a particular behaviour in terms of a host of variables relating to both individual dispositions and contexts, along with interactions among them, is a complex and daunting venture.

Another possible reason for the focus on past situations rather than current ones is the predominance of the psychoanalytic framework in research and practice. Although Freud's Oedipus Complex no longer wields great influence, subsequent adaptations of psychoanalytic theory also have stressed the importance of the parent-child relationship in child development. Learning theories posit that children apply learning about adaptive behaviour in their relationship with their primary caregivers to other relationships. Additionally, many efforts at reforming children's behaviour in various contexts focus on teaching parents new parenting skills, despite the lack of strong evidence that behaviour changes in one context will lead to behaviour changes in other contexts.

Due to the bias toward disposition, both researchers and practitioners tend to focus on reforming an individual child's behaviour rather than reforming aspects of his or her environment. If a therapist, teacher, or other professional does consider environmental factors, he or she often aims to help a child adapt to an environment by, for example, helping the child to more accurately read social cues or to resist social pressures. Dodge and Crick's social information processing model, for example, suggests that children act aggressively when they mistakenly attribute hostile intent to the ambiguous behaviour of their peers (Crick et al., 2002, Crick and Dodge, 1994, Dodge, 1986, Dodge and Coie, 1987). Less common are interventions that aim to change the environment in such a way that fewer children behave anti-socially.

In summary, the risk and protective factor perspective has allowed researchers to isolate important contributors to anti-social behaviour. However, factors related to individuals' dispositions, borne of the interplay of genetic composition and long-term environmental influences, have garnered more attention from researchers and practitioners than factors in individuals' current environments, despite evidence that such factors can significantly affect behaviour. The next chapter will focus on the impact of one aspect of current environments, groups, on behaviour.

Summary

Key predictive factors in the models previously discussed are risk and protective factors. Current research and practice related to anti-social behaviour often focuses on such factors. Several individual characteristics, which probably arise in part from a child's genetic make-up, have been consistently shown to precede anti-social behaviour. These are hyperactivity, cognitive impairment,

temperamental features (such as impulsivity), and distorted social information processing (i.e. misinterpreting social interactions as threatening). Evidence suggests that environmental factors such as harsh, coercive parents, teen parenting, and anti-social peers also contribute to anti-social behaviour.

Unfortunately, even though common precursors of anti-social behaviour have been identified through research, it remains difficult to predict which children, among a large sample, will become persistent offenders. Some researchers have stressed that knowledge of individual traits is a clumsy tool for predicting behaviour and that it is important to understand how individual tendencies interact with aspects of the current environment to produce behaviour.

Interventions designed to reduce anti-social behaviour, like the research they are based on, tend to focus on individuals and their risk and protective factors. Some approaches also aim to enhance known protective factors. However, few focus on reforming current social contexts.

To better understand how context affects behaviour, more research is needed on the types of contextual factors that are most influential. Some situations appear to more strongly influence behaviour than others. For example, those that provide clear cues regarding acceptable behaviour appear to be more powerful than those that allow for a wider range of behaviour.

Chapter Six: The Impact Of Social Groups On Behaviour

This chapter focuses on how behaviour—and anti-social behaviour specifically—can be better understood and prevented through the consideration of one aspect of an individual’s immediate contexts: group dynamics. It begins with a discussion of group-related variables associated with behaviour, followed by a consideration of how the group lens affects perspectives on the etiology and sequelae of anti-social behaviour. The chapter concludes with a consideration of how research and approaches to intervention and prevention might change with greater attention to group issues.

Group Variables Pertinent To Anti-Social Behaviour

Several group-related variables consistently predict behaviour in general, and anti-social behaviour specifically. These variables include: individual goals or motives, group norms, leadership style and power structure, and group cohesion. Each of these variables is reviewed briefly below.

Goals or Motives

As discussed in Chapter One, Farrington maintains that individuals bring particular dispositions to a social situation, but how they actually behave is also related to their assessment of the benefits, costs and probabilities of the different outcomes. Benefits to a person with what Farrington calls “anti-social potential” include, for example, material goods that can be stolen and costs might include the likelihood and consequences of being caught by the police. Costs can also include social factors such as likely disapproval by parents or partners, and encouragement or reinforcement from peers. As noted, these viewpoints reflect Rational Choice Theory and Crime Prevention Theory (Clarke, 1995, Clarke and Felson, 1993, Hagan, 2011).

Farrington’s theory reflects findings from evolutionary psychology on the functional nature of aggressive behaviour. Humans and other animals also appear to use aggression to enhance and secure social status and thereby to accumulate resources, desirable mates, and ward off future victimisation, all of which are related to reproductive success. According to evolutionary theory, the costs of direct aggression are higher for women than for men. Women are usually the primary caretakers of their offspring and thus engage more in lower-risk, indirect aggression to ensure their own survival and their children’s. A series of experiments by Griskevicius and colleagues highlights the relationship of both context and gender to aggression. The researchers asked college students to consider how they would act in a number of peer group scenarios involving status competition, resource competition, courtship, and aggression. They found that both context and gender were factors in how students assessed the costs and benefits of aggression. For example, men said they would be more aggressive in scenarios that involved mating motives, but only when observers were other men, perhaps because women prefer non-aggressive mates. For women, both status and mating motives increased indirect aggression, but neither motive increased direct aggression. Women, however, did believe they would be directly aggressive when competing for scarce resources. The

authors note that this finding reflects those from other studies that show that in contexts with acute resource shortages, females tend to be as violent as males (Griskevicius et al., 2009).

Group Norms

Individuals in groups appear motivated not only to secure resources for themselves but also to “fit in.” Classic studies conducted by Muzafer Sherif in the 1930s showed that individual behaviour was affected by the behaviour of others and that norms emerged in groups, which, in turn, affected group members’ future behaviour. For example, when Sherif asked men to estimate the distance a dot of light had moved, he found that subjects tended to gradually adjust their responses, over time, to be more similar to those of other group members. Subjects even tended to maintain their group-influenced estimates when questioned alone (Forsyth, 2006).

Cialdini and Trost define social norms as the rules and standards understood by group members that guide or constrain behaviour without the force of laws. Social norms arise from interactions with others and may not be explicitly stated. Sanctions for deviation from norms come from social networks (Cialdini and Trost, 1998). It is important to distinguish social norms from personal norms or attitudes. Consequences for violation of a personal norm come from the individual rather than the group (Kerr, 1995).

Although empirical literature on the emergence and transmission of social norms is limited, research by Sherif on unstable situations suggests that, in the absence of an objective rule for behaviour, people tend to behave according to group consensus or social norms. According to the functional perspective, the most robust norms are those that promote the survival of individuals and groups. Such norms include those related to acquiring status, affiliating with others, acquiring food or shelter, and mating. The societal-value perspective holds that any behaviour that is valued and rewarded can become a norm, regardless of its objective utility. However there is research evidence that the more arbitrary the norm, the more quickly it disappears from a population (Cialdini and Trost, 1998).

As might be expected, individuals are most influenced by others closest to them in space and that subcultures emerge in groups of individuals near to one another (Cialdini and Trost, 1998). According to research by Fine and others, individuals in new contexts actively seek to understand social norms to avoid sanctions for inappropriate behaviour. Additionally, because the larger group has an interest in smooth interaction and maintenance of order, norms are usually easily recognised (Fine, 2001).

The origin of the desire to conform to group norms appears to vary by culture. Individualist cultures emphasise the independence and uniqueness of individuals, while collectivist cultures place group goals above those of individuals. Members of groups in individualist cultures tend to see groups as a means towards their own ends and become frustrated when group membership becomes too costly for them. By contrast, group members in more communal cultures often become frustrated when the members are too selfish and undermine the group’s goals. It follows then that people living in individualist cultures, like the U.S., tend to

attribute behaviour more to individual characteristics than do people living in more communal cultures, such as China. In communal cultures, people tend to more strongly perceive the effect of situational factors, such as group dynamics, on behaviour (Forsyth, 2006).

Leadership Style And Power Structure Of Group

Power and authority are not commonly shared equally among group members. Research suggests that power in groups arises from multiple sources. Coercive power comes from the capacity to punish others. Terrorists, gang members, employers, and teachers all have potential coercive power (Burke, 2006, Forsyth, 2006). Power can also arise from access to or control of information. Accurate communication tends to foster trust among group members and commitment to the group as a whole. However, open communication can sometimes be counterproductive when members are hostile toward one another. An individual earns what is termed “legitimate power” when those who follow him/her believe that he or she has the right to influence them. Additionally, once a person establishes him/herself as a leader, others tend to see his or her authority as legitimate (Burke, 2006, Forsyth, 2006). Group behaviour often varies by leadership style. Lewin, Lippitt, and White conducted experimental studies with groups of 10 and 11 year-old boys in the 1930s. They found that groups led by autocratic adult leaders tended to accomplish more but were less likely to be efficient when the leader was away than groups with democratic or laissez-faire leaders. The boys in the autocratic groups also tended to be more hostile and aggressive than the others, often focusing their hostility toward a single scapegoat (Forsyth, 2006).

A social hierarchy is a ranking system formed when categories of people are evaluated differently by others. The leader of a group usually occupies the top position in a hierarchical structure. Lower status individuals defer to higher status ones (Burke, 2006, Forsyth, 2006). As noted, theoretical perspectives on the emergence and function of social hierarchies have mainly focused on resource acquisition. Research evidence across species suggests that it is the impression that group members have of an individual’s ability, rather than actual ability, that matters (Hawley, 1999). Thus, according to expectations states theory, those who others expect to advance group goals achieve high status. Status can subsequently rise or fall based on actual contributions. However, it is difficult to overcome the first impressions of group members. Ethological theory predicts that group members assess each other based *solely* on appearance and demeanor. Those who appear particularly strong are assigned high ranks and those who appear weak are assigned low positions. Others vie with each other for dominance in often subtle, but sometimes aggressive, challenges with one another (Levine and Moreland, 1998, Stryker, 2001).

Social hierarchies, once established, appear to be difficult to change. Levine suggests that high status members may resist change. Moreover, such members tend to be highly appraised, which, in turn, might make the status system appear legitimate to other group members. Additionally, low status members usually do not have the influence to make changes, and might not be inclined to call for reform if they too believe in the validity of the hierarchy (Levine and Moreland, 1998, Ridgeway et al., 1998).

Social hierarchies tend to become apparent during middle childhood, and most children can identify their own and others' status by age 11 or 12 (Barasch, 2000). Savins-Williams' studies of adolescents at residential camps provide evidence that dominance hierarchies are quickly established and highly stable over time. He found hierarchies to be established by the third day of camp and that transgressions against the hierarchy after three days (23 per cent) was only slightly higher than after 28 days (20 per cent). The author identified rank ordering based on systematic observations of eight types of social dominance behaviours (e.g. verbal directive, ridicule, physical assertiveness, and physical threat) and on subjects' own reports of the hierarchies within their cabin groups. The author found that girls more often used ridicule, directives, and recognition of higher status peers in dominance interactions, while boys more often used physical contact, displacement, verbal argument, or threat. The resulting observation-based hierarchies were highly similar to those based on subjects' reports (Savin-Williams, 1995, Savin-Williams, 1979, Savin-Williams, 1976).

Ethnographic studies of children in middle childhood suggest that social hierarchies determine and/or are determined by how children interact with one another. For example, Adler and Adler drew on their seven years of participant-observation and interview research with third through sixth grade students in the U.S. to articulate the following hierarchy. At the top of the social structure were "popular clique members" who were strongly influenced by status concerns. Popular children, who were not leaders of their clique, rarely defied their leaders for fear of losing their own status. A step down were the "wannabes," who were children who "hung around" the popular children, hoping to be included in their activities. Adler and Adler note that although the popular clique members sometimes ridiculed wannabes, they also made sure to maintain their attention because such attention helped to secure their own status. Next were the "middle level friendship circles" which included groups of children who "mind their own business" and were not exclusive regarding whom they included in their activities. Adler and Adler stress that friendships among members of such groups were characterised by a high level of trust, unlike those in the popular clique which tended to form and dissolve based on whom the leader currently favoured or disfavoured. Finally, at the lowest level were "isolates," children with no friendships. "Everyone could safely offset their humiliation by those higher than them by picking on the isolates, no-one came to their defence" (Adler and Adler, 1996).

Adler and Adler also note some distinguishing characteristics of social hierarchies among children in elementary school: "In contrast to adolescents' diverse and loosely arranged groups, preadolescent groups tend to be smaller, less eclectic, and more socially restricted by their encapsulation in homerooms. As a result, their status stratification tends to be more unidimensional, a singular popular crowd dominating over groups beneath it" (Adler and Adler, 1996) However, Adler and Adler also note that, although the most popular and the most rejected children's positions do not tend to change much over time, those in the middle change position fairly often (Adler and Adler, 1998).

Group Cohesion

Groups tend to have more influence on individual behaviour when they are “cohesive” or have strong bonds among group members and a sense of unity. Conflict with another group can foster cohesion because it can lead group members to minimise their differences and work together. The more members interact, particularly if interactions are of a positive nature, the more cohesion is possible.

Haynie examined data collected from a nationally representative sample of adolescents in the U.S., including 13,000 adolescents within 120 schools. Using subjects’ self-report on delinquent behaviour and data collected from their friends on their own delinquent behaviour, Haynie found that subjects’ own delinquency was associated with that of their friends. They also found that subjects were more likely to behave anti-socially when they were central members of peer networks (i.e. were nominated by many peers in the network) and, in particular, when they were in cohesive networks (i.e. groups with many reciprocal friendships). Haynie argues that although the data is cross-sectional, the results are not likely the result of self-selection (i.e. subjects choosing friends with similar behaviour) because centrality and density, in that case, should not condition the peer-delinquency association. Haynie proposes that network cohesion facilitates a common identity and thus places more constraint on the behaviour of members (Haynie, 2001).

Hazing rituals can also foster cohesion. According to dissonance theory, members who feel they paid a high price for membership tend to value that membership more highly and are more committed to the group (Aronson and Mills, 1959, Brown, 1988, Peterson and Martens, 1972).

The Impact Of Group Dynamics On The Understanding Of The Etiology And Sequelae Of Anti-Social Behaviour

As noted, evidence suggests that individuals come to groups with innate traits and learned tendencies that might affect their behaviour. Also, dynamics within groups related to such factors as goals, power structure and cohesion can affect behaviour while in the group. However, it remains unclear to what degree a particular behaviour, such as anti-social behaviour, within a particular context is affected by individual versus group factors. Various researchers have noted that some situations or groups appear to more strongly influence behaviour than others. As previously discussed, strong situations, or those that provide clear cues regarding acceptable behaviour, tend to wield more influence than weaker, less structured ones (Deaux and Major, 1987, Krahe, 1992). Groups with strong social norms might influence behaviour more than groups with weaker norms. Additionally, some individuals appear more resistant to group influences. For example, it appears that young people characterised by “life-course” anti-social behaviour, as described by Moffitt, might be less influenced by groups than those with “adolescent-onset” anti-social behaviour. The life-course group might have more risk factors, such as genetic predisposition for impulsivity and hyperactivity, causing them to be aggressive regardless of the situation, whereas the adolescent-onset group might have fewer individual risk factors but behave anti-socially in order to fit into a particular peer group (Connor, 2002, Moffitt, 1993). Still, the trajectory of those with early anti-social tendencies is often described as being influenced by both

individual and group factors. Such children are frequently rejected by pro-social peers (perhaps because of their behaviour) and are relegated to social groups of similarly anti-social peers who, in turn, reinforce each other's negative behaviour (Connor and Coie, Dodge, and Kupersmidt 1990). Vulnerability to social group norms also appears to vary by age. Research suggests that the majority of students are most influenced by anti-social behaviour norms around ages 14-15 (Berndt, 1979).

As noted, researchers have traditionally given limited attention to how current situations affect behaviour. Learning theory, for example, predicts that individuals will behave similarly across situations because they apply learning from one setting to another. Thus group dynamics might have a lasting impact on behaviour by affecting the lens through which individuals understand future settings and groups. A variant of learning theory, social learning theory, suggests that individuals adopt behaviours that they observe in others (particularly parents or primary caregivers, but also other models who are perceived as powerful and adept) through cognitive representations of the behaviour. Such modelling, according to the theory, can lead to both pro-social and anti-social behaviour (Ruble and Goodnow, 1998, O'Connell et al., 1999). For example, Huessman explains persistent aggressive behaviour as resulting from experiences in which individuals view aggression as effective and normative. This understanding leads to complex behavioural "scripts" which are, in turn, encoded in memory and retrieved in similar situations as guides for behaviour (Geen, 1998).

The peer relations literature, including research on bullying, primarily looks at the influence of peers from the perspective of social learning theory. Researchers of peer relations have studied how children's dispositions relate to their behaviour, as well as how children learn from interactions with adults and peers and then model that behaviour in other settings (Ruble and Goodnow, 1998). More specifically, research has produced evidence that, based on interactions with their parents, children generate internal rules linking social behaviours to consequences which, in turn, guide their behaviour with peers (Schudlich et al., 2004, Shonkoff et al., 2000, Bowers et al., 1994, Domitrovich and Bierman, 2001, Schwartz et al., 1997). For example, Dodge and Coie's research on hostile attribution bias suggests that children who experience abusive or hostile parenting tend to attribute hostility to ambivalent behaviours of their peers (Geen, 1998, Crick et al., 2002, Dodge, 1986, Dodge, 2002).

Some researchers have questioned the idea that children's behaviour in any context is largely determined by past experiences, particularly by parents' socialisation. Judith Rich Harris, Steven Pinker, and various behavioural geneticists (most prominently Robert Plomin) have noted many studies showing a relationship between parenting and behaviour have one or more critical flaws. Many of these studies do not control for genetic influence so it is impossible to assess whether links between parents' behaviour and that of their children is caused by similar genetic compositions or by some aspect of the parent-child relationship. Critics also note that such studies also rarely assess whether similarities are due to parents influencing children or vice versa (Plomin, 2001, Harris, 1995, Harris, 2000, Pinker, 2003). Additionally, parents and children's behaviour is usually measured in the same context, often the home. Some critics note that such an approach is

problematic, given evidence that teaching parents new ways to deal with their children sometimes succeed in improving children's behaviour at home, but rarely do such interventions significantly improve children's behaviour at school or in other social settings (Wierson and Forehand, 1994, Harris, 1995). Another concern, as noted above, is that average cross-situational coefficients are typically low in general studies of behaviour (Mischel and Shoda, 1995, Mischel et al., 2005).

Harris points to a variety of studies, which suggest that children adapt their behaviour to the person(s) with whom they are interacting. Even infants who are somber with their depressed mothers often behave normally in the presence of caregivers who are not depressed (Harris, 2000). Such findings suggest that what children learn at home with their parents do not necessarily generalise to other situations or relationships and thus undermine the idea that children always apply what they learn in past situations to present ones. Harris also suggests that in order to survive and reproduce, children must learn to understand what type of behaviour works best in different social environments (Harris, 1995).

As discussed, current social contexts might affect future behaviour by setting an individual on a certain trajectory. Very positive or negative group experiences might cause an individual to choose similar or dissimilar groups in the future. Additionally, pro-social or anti-social behaviour in one context might open avenues to other contexts that support that behaviour and close avenues to ones that do not (Rutter et al., 1998).

Research Approaches To Understanding The Impact Of Groups On Anti-Social Behaviour

As the preceding discussion suggests, research is needed to clarify the impact of various group dynamics on behaviour within the present group and on behaviour in future groups. Groups are moving targets for a researcher. Many groups have rapidly changing memberships and to understand a group's dynamics involves understanding the multiple interactions and relationships that exist within it.

Ethnographic research on children's understanding of the determinants of their own thoughts, feelings, and behaviour and that of their peers has produced a rich body of evidence on the relationship of current situations to child behaviour. For example, Adler and Adler, as described above, spent seven years in 12 public and private schools in the U. S. conducting participant observations and in-depth interviews on clique stratification and identity formation among preadolescents. Their subjects provide a detailed understanding of how social hierarchies affect behaviour (Adler and Adler, 1995, Adler and Adler, 1996). Researchers might draw on ethnographic findings in devising studies to isolate relationships among individual variables (including temperament and goals) and situational variables using larger samples than are typically employed in ethnographic studies.

One key challenge to assessing situational variables, including group variables, is measurement. Sherman et al. note that while there are ample methods for assessing personality, psychology lacks a general method for assessing the psychologically important characteristics of situations. The editors of a special 2010 section of the journal *Social Development* describe advanced data analytic

techniques, now in development, to address contextual dependencies in data⁶. In the issue, a number of new methods are described including, the Riverside Situational Q-Sort (RSQ). Sherman et al. used the RSQ with 202 undergraduate students, on four occasions over the course of a month. The students were asked to describe the psychological characteristics of situations they had experienced the previous day using a computer-based Q-sorter programme. Participants were then asked to describe how they acted in that situation also using the computer-based Q-sorter programme. They found that situational similarity, especially from the individual's own point of view, strongly predicted behavioural consistency and that personality characteristics predicted behavioural consistency even after controlling for situational similarity. They conclude that behavioural similarity across time appears to be a function of both situational similarity and personality (Sherman et al., 2010).

Examining the relationships among variables, however, provides only a limited view of the influence of groups, according to Krahe. She emphasises the importance of employing more than a statistical understanding of interactions. In the statistical approach, the amount of variance in a behaviour accounted for by both situational or group independent variables and dispositional independent variables is considered along with the variance explained by interactions of specific situations and dispositions. However, Krahe maintains that there are other ways to consider how situations and dispositions work together to produce behaviour. For example, Krahe describes how “transactions” between people and their environments make the distinction between independent and dependent variables obsolete. She suggests that future research focus more on how situational and individual traits mutually influence one another. She gives examples of studies that document interaction cycles in which subjects report on their actions and the reactions of others in their environments and then their subsequent actions. Another approach is to survey subjects about their likelihood of behaving in a certain way with various partners under various conditions. Krahe also calls for more research on how objective group factors are translated into subjective meanings (Krahe, 1992). Similarly, Mischel suggests that surveys of behaviour should be “situation-specific.” He suggests that better appreciation of the impact of situation or group come from studies that ask subjects to keep daily diaries of their behaviour in various situations (Mischel et al., 2005).

Garner offers some more basic suggestions about studying situations or social settings. First, she recommends that any experiment conducted in a laboratory must treat the setting of the laboratory as a significant factor potentially affecting behaviour. She also stresses that hypotheses should include predictions about behaviour continuity and variation across multiple settings. Such studies could be designed either with between-subjects designs, where subjects would be randomly assigned to various settings/groups, or with within-subjects designs, where subjects would be observed in all settings, with the order of the conditions counterbalanced across subjects (Garner, 1990).

⁶ Individuals within a group or other context are likely to resemble each other. However, traditional data analysis assumes statistical *independence* of observations. When observations share some dependencies, the parameter estimates from traditional procedures are biased.

How Greater Understanding Of Groups Might Affect Interventions For Anti-Social Behaviour

Existing evidence suggests that ignoring situational factors, and more specifically group factors, might severely limit the potential influence of an intervention designed to reduce anti-social behaviour. Indeed, interventions focused solely on individuals might be analogous to giving a man an oar to paddle upstream as opposed to turning the tide (i.e. changing his environment) so that he (and his fellow paddlers) can reach their destination much more easily. A primary purpose of this thesis in general—and the research on bullying in specific—is to consider ways of turning the tide for children, of finding ways to alter their environments so that they can more easily change their behaviour.

A review of substance abuse interventions exemplifies the ongoing bias towards the individual over situations. Hansen et al. examined substance abuse prevention programmes listed on the National Registry of Evidence-Based Programmes and Practices in the U.S. Included on the list are programmes with well-documented positive effects. They found 48 programmes that had manuals that described how the programmes work. Programmes that aimed to reform individuals (e.g. addressing beliefs about consequences, teaching decision-making skills and addressing attitudes) were much more common than those that aimed to change the environments in which young people spend much of their time (e.g. providing opportunities for associating with positive peers or providing positive alternatives to drinking or using drugs) (Hansen et al., 2007).

To what extent schools and other institutions *have* focused on social environments, the primary focus appears to be on norms. For example, conventional wisdom (and some research evidence) suggests that the most effective anti-bullying programmes are those that take a whole-school approach and aim to change the culture of the school in relation to bullying. Many of these programmes tend to be vague on what constitutes a school culture or norm and usually do not draw on knowledge about norm formation in devising programme methods.

An exception is an intervention designed by a group of researchers led by Daphna Oyserman. They examined the common discrepancy between the long-term career goals reported by low income, minority children and their academic performance overtime. Statistics show that as minority, low-income children move into high school, their dreams tend to unravel and their academic performance pales in comparison to their middle class counterparts. Oyserman et al. hypothesised that a number of experiences make it difficult for these children to hold onto positive visions of the future. Minority low-income youth often are repeatedly exposed to adults and peers whose lives contrast with their dreams. Oyserman and her colleagues hypothesised that these social norms might lead children to believe that their dreams are not realistic. The researchers developed an intervention that alters young people's social contexts in strategic ways. For example, in the first session of this group intervention, each middle school student introduces another student by noting an ability or skill that he or she has that could help him or her complete the school year successfully. The aim of this activity is to create a "metamessage" that all of the students in the room care about school. A group of 164 eighth grade students from low-income families in a U.S. city were randomly assigned to a

control group or to a group that received a seven-week programme designed to foster a social context which promotes positive personality identities. When the two groups were compared following the intervention, the intervention group displayed significantly greater academic initiative, standardised test scores, and grade improvement and significantly lower levels of depression, absences, and in-school misbehaviour. Effects were sustained over a two-year follow-up and were mediated by change in “possible selves” (Oyserman et al., 2006).

Some interventions have aimed to alter individual behaviour by strategically applying the influence of groups. Dissonance theory states that humans desire to present a consistent image to others and themselves. In their classic 1950s experiments, Leon Festinger and J. Merrill Carlsmith were able to change study participants’ feelings about boring, repetitive activities (like turning pegs or putting spools on a tray) by asking them to persuade other participants that the activities were actually quite engaging (Reis, 2001, Jones, 1998). The power of this basic desire for consistency can be harnessed to change behaviours in the real world according to the results from a number of studies of “dissonance-based interventions” for eating disorders (Stice et al., 2008). The interventions involved several sessions in which volunteer participants (adolescent girls and young women) were asked to behave in ways that people with healthy behaviour and ideas about body weight would behave. For example, they were asked to try to dissuade group leaders from pursuing the thin ideal. Most of the activities occurred in a group setting because research suggests that people are more likely to adopt ideas that they have publicly proclaimed. Based on their review of such interventions, Stice et al. conclude that dissonance-based interventions for eating disorders tend to be significantly more effective than other approaches to this problem. The researchers also note that dissonance-based interventions have been shown to reduce negative attitudes and promote positive behaviour in other areas such as drinking, smoking, practicing safe sex, and even conserving water (Stice et al., 2008).

Other interventions that apply knowledge of groups have focused on altering group members’ perceptions of norms. Evidence suggests that adolescents generally overestimate the prevalence of smoking, drinking, and illicit drug use among their peers and that such misperceptions can, in turn, lead to norms that support drug use (Fishbein, 1977). “Normative education” interventions have been designed to correct misperceptions by providing students with information about the prevalence of drug use from national or local surveys or by helping students to conduct their own surveys of drug use within their class, school, or community (Botvin, 2000, Hansen and O’Malley, 1996). The impact of normative education interventions appear to be significant (Lewis and Neighbors). For example, Hansen et al. tested two strategies for preventing the onset of alcohol, marijuana, and cigarette use in junior high schools in California. The first, more conventional, strategy taught skills to refuse substances. The second strategy corrected erroneous normative perceptions about prevalence and acceptability of use among peers and established conservative groups norms regarding use. Twelve schools were randomly assigned to receive one of the following conditions: (a) neither of the experimental curricula (placebo comparison), (b) resistance skill training alone, (c) normative education alone, or (d) both resistance skill training and normative education. Students were pre-tested prior to the programme and post-tested one year following delivery of the programme. Results indicated significant reductions in alcohol, marijuana, and cigarette use

among students in schools with the normative education condition compared with those in other conditions (Hansen and Graham, 1991).

Involving children in the planning and evaluation of interventions aimed to improve their behaviour also might improve programs. As the fundamental attribution error suggests, individuals have a keener understanding of how group circumstances affect their own behaviour than others do. Also, as mentioned above, ethnographic research suggests that children can be astute observers of their own social contexts—contexts where adults usually are not present. As work on children's rights by Mayall and others suggests, children often embrace opportunities to participate in efforts to change social order, although they are rarely called upon to do so. (Bendelow and Mayall, 2002, Mayall, 2006) A notable exception is the consultation with children as part of Every Child Matters in the U.K.

Having reviewed risk and protective factor perspectives on anti-social behaviour and its limitations as well as how group perspectives help to expand understanding of behaviour, the next chapter focuses on a particular anti-social behaviour, bullying. This chapter will focus on how bullying has been traditionally studied and understood as well as on how social dynamics affect children's behaviour in bullying situations.

Summary

Chapter 6 focuses on how anti-social behaviour can be better understood and prevented through the consideration of one aspect of an individual's immediate contexts: group dynamics. Several group-related variables consistently predict behaviour in general, and anti-social behaviour in specific, across studies. These variables include: individual goals or motives, group norms, leadership style and power structure, and group cohesion.

Researchers of peer relations have studied how children's dispositions relate to their behaviour as well as how children learn from interactions with adults and peers and then model that behaviour in other settings. However, some researchers have questioned the idea that children's behaviour in any context is largely determined by past experiences, particularly by parents' socialisation. They point to flaws in the research used to justify this perspective. Many of the studies do not control for genetic influence, so it is impossible to assess whether links between parents' behaviour and that of their children is caused by similar genetic compositions or by some aspect of the parent-child relationship. Critics also note that such studies rarely assess whether similarities are due to parents influencing children or vice versa. One key challenge to assessing group variables is measurement. While there are ample methods for assessing personality, researchers are still exploring methods for assessing the psychologically important characteristics of situations.

Some interventions have been successful in altering individual behaviour by strategically applying the influence of groups. For example, some eating disorder interventions focus on individuals' desire to present a consistent image to others.

Participants are asked to behave in ways that people with healthy behaviour and ideas about body weight would behave. Due to a desire for consistency, participants tend to adopt the beliefs and behaviour they espouse accordingly.

Chapter Seven: Bullying: Definitions, Prevalence, And Risk Factors

Research on bullying, like other anti-social behaviours, has traditionally focused on risk factors, specifically those associated with bully or victim status. Many of the interventions used in schools are based on reducing such risk factors. For example, victims are taught to be more assertive or bullies are taught to be more empathetic (Salmivalli, 1999, Smith et al., 2004b, Roberts Jr and Coursol, 1996, Holt and Keyes, 2004, Leff et al., 2004, Arsenio and Lemerise, 2001, Graham and Juvonen, 2001, Menesini et al., 2003, Cappella and Weinstein, 2006). More recent studies, which show that children who witness bullying rarely intervene on a victim's behalf, have led to programmes that encourage children to befriend or defend victims (Salmivalli, 2001, Cowie and Hutson, 2005, Cartwright, 2005, Sutton and Smith, 1999, Hawkins et al., 2001, O'Connell et al., 1999, Boulton et al., 2002, Frey et al., 2005). Unfortunately, most evaluations of interventions such as these have shown few sizeable reductions in bullying and victimisation (Cappella and Weinstein, 2006, Eslea and Smith, 1998, Frey et al., 2005, Salmivalli et al., 2005a, Salmivalli et al., 2004, Sanchez et al., 2001, Smith, 2000, Smith and Brain, 2000, Smith et al., 2004b, Whitaker et al., 2004).

In recent years, a growing number of researchers have maintained that a fuller understanding of bullying requires inquiry beyond the bully-victim dyad into the social environments in which bullying occurs and specifically into the roles of other children (those who are neither bullies nor victims) in fostering and maintaining bullying. For example, a book published in 2004 includes chapters by a wide range of researchers, all of whom maintain that "bullying and victimisation are ecological phenomena that are established and perpetuated over time as a result of the complex interplay between inter- and intra-individual variables" (Espelage and Swearer, 2004).

This chapter aims to describe available evidence and theory that suggests why children behave as they do in bullying situations with a particular emphasis on the dynamics of children's social environments. Literature included in this detailed review was identified through a broad exploration of research on bullying among children in middle childhood (roughly ages eight–14) and research and theory on the impact of social environments and group dynamics on individual behaviour. The literature is primarily from journals and books, although evidence from several studies presented at conferences are also included. Most of the studies reviewed take a positivist perspective, but several ethnographic studies provide important insight into the social interactions among children in middle childhood.

The review begins with a brief discussion of what bullying is and how often it typically occurs among children. An overview of the large body of research on intra-individual characteristics, which appear to be risk factors for bullying and victim status, follows. This section also includes a discussion of the personality theories that explicitly or implicitly guide many of these studies. Next is a review of evidence from a smaller body of research that suggests that aspects of children's social environments are related to bullying. The following two sections focus on two

aspects of social environments— social norms and social hierarchies—that might contribute to bullying among children.

Definition And Prevalence

According to most research on bullying, a person is being bullied when he or she is exposed, repeatedly and over time, to negative actions on the part of one or more other individuals. Some definitions also emphasise that an imbalance of power exists between bullies and victims, that negative actions include physical contact, verbal maltreatment, or social exclusion and often occur without provocation, and that the intention of bullying is to inflict harm and express dominance (Olweus, 2001, Horne et al., 2004, Smith et al., 2002, Gottheil, 1999, Leff et al., 2004). In a factor analysis of terms across 14 countries involving 1,245 eight and 14 year-old children, the English term “bullying” loaded highly on both physical and verbal abuse, moderately highly on social exclusion, and less highly on even-handed disputes or retaliation (Smith et al., 2002).

The three primary types of bullying that have been identified are: physical (including hitting, kicking, chasing, etc.), verbal (including name-calling, teasing, threatening, etc.), and relational bullying (including various forms of social manipulation). Research on bullying traditionally has focused more on physical and verbal bullying than on relational bullying. However, in recent years, relational aggression has garnered more research interest. Xie et al. distinguish between direct relational aggression, which includes confrontational strategies (excluding, threatening to withdraw friendship, etc.), and social aggression, which includes non-confrontational strategies (gossiping, telling secrets, etc.) The authors note that social aggression is a particularly sophisticated type of bullying because it often involves enlisting the help of others and it allows a perpetrator to conceal or obscure his or her identity and thus minimise the risk of retaliation (Xie et al., 2002).

There has been an increase in interest, in recent years, in two other bullying categories: bully-victims and cyber-bullying. Researchers have identified “bully-victims” who are children who are both aggressive towards others and are themselves victimised. Bully-victims are usually a small minority of students in a classroom and appear to be particularly aggressive (more so than children who only bully) and to suffer from emotional dysregulation (Ball et al., 2008, Salmivalli and Nieminen, 2002). Cyber-bullying, transmitted through phones and computers, appears to be on the rise. Although research is still limited, existing prevalence studies suggest that 10 to 35 per cent of young people have been bullied in this way (Mishna et al., 2010, Wade and Beran, 2011). Cyber-bullying appears particularly pernicious because the bullying is often anonymous and, as such, particularly cruel because bullies feel they can act with impunity. Also, the internet increases the number of (virtual) bystanders, and thus increases victims’ public shame. Moreover, adults have difficulty controlling on-line bullying because, although cyber-bullies usually target schoolmates, schools’ jurisdiction over cyber-bullying incidents is often unclear, and parents often have difficulty limiting their children’s access to the internet (Hoffman, 2010, Wade and Beran, 2011). This review does not focus on either of these categories because bully-victims appear to represent a small per cent of children (less than three per cent according to Ball et al.) and because of the limited research to date on cyber-bullying (Ball et al., 2008, Mishna et al., 2010).

However, cyber-bullying will be considered again in the final chapter on implications of the thesis for future research and practice.

Rates of victimisation vary depending on sample characteristics such as age, gender, and country. Additionally, self-reports tend to be higher than peer or teacher reports. Some studies have shown that most people have been bullied at some point in their lives (Mah, 2000). Prevalence studies generally find that 20 to 40 per cent of school-age children and adolescents are victimised three or more times in a year (Pellegrini et al., 1999, Haynie et al., 2001, Wolke et al., 2000, Batsche, 1994, Duncan, 1999). Ten per cent of students usually qualify as extreme victims, those bullied on a weekly basis (Perry et al., 1988, Nansel et al., 2003, Olweus, 1994). In a survey of a nationally representative sample of U.S. youth in grades six through 10 (n = 15,686), 8.4 per cent reported being bullied once a week or more, and 30 per cent of the total sample reported some type of involvement in moderate or frequent bullying, as a bully, a target of bullying, or both (Nansel et al., 2001).

Few studies have tracked trends in bullying over time. According to surveys by the National Center for Education Statistics, bullying in U.S. schools has increased since 2001. Fourteen percent of students, ages 12 through 18 reported being bullied during school in 2001, a proportion that increased to 32 percent in 2007. It should be noted that the 2007 survey was revised to include information on cyber bullying and thus it is not clear whether this change or an overall rise in bullying accounts for the increase in the statistic (DeVoe et al., 2003, Dinkes et al., 2009). Additionally, as more bullying interventions and educational campaigns are employed, students might become more sensitised to the issue, causing them to recognise and report more cases of bullying than would children not exposed to this type of information. Indeed, whereas bullying is seen as a serious problem, by adults and students in most schools today, it was considered a normal and sometimes beneficial part of childhood in schools in the past. As depicted in films and novels such as *Goodbye Mr. Chips*, English public boarding schools established “fagging” systems in which older boys had authority over younger ones who functioned, outside of the classrooms, as servants. The system, condoned by adults, was seen as a way to instill group conformity and loyalty. Initiation rites and the general bullying of younger or weaker boys by older or stronger boys also were seen as preparing boys for manhood and leadership (Hilton, 1934).

Several studies have looked at the prevalence of bullying using cross-national samples. For example, Nansel et al. obtained surveys from nationally representative samples of students in 25 countries (n = 113,200). Subjects were given a standard definition of bullying and asked to report how frequently they had been bullied at school and how frequently they had bullied others at school during the current school year. Findings showed great variance across countries, ranging from nine to 54 per cent of subjects aged 11-15 years (Nansel et al., 2004).

Most of the existing research focuses on bullying in schools and on school playgrounds. This focus appears to be justified. The U.S. survey by Nansel et al. found that significantly more students reported being bullied in school than away from school (Nansel et al., 2003).

Risk Factors For Bullying And Victim Status

Research on risk factors for bullying and victim status generally fall into two categories: 1) studies that, at least ostensibly, are 1) theoretical and simply pursue correlates of bullying and victimisation, and 2) studies that draw on personality theories or personality/genetic theories (like ecological theory) to explain why risk factors are associated with bullying and victimisation. The theory-driven studies tend to focus on relatively stable intra-individual structures and processes to explain the relationship between risk factors and bullying behaviour or victimisation. As noted, a common perspective in bullying research is that of social learning theory, which describes behaviour as being influenced by prior learning about what is acceptable and useful and by interpretation of current circumstances in light of prior experiences (Taylor, 1998). Researchers who take this perspective have tended to focus on the effects of family experiences and attitudes on bullying behaviour, vulnerability to victimisation, and propensity to defend victims (Pulkkinen, 2001, Shonkoff et al., 2000, Shields, 2001, Barber et al., 1994b, Barber, 1996). Another perspective is that children who bully lack the cognitive ability to accurately assess social situations. Their misinterpretations, in turn, lead to aggressive responses (Crick et al., 2002, Pulkkinen, 2001, Arsenio and Lemerise, 2001). As mentioned, only recently have researchers looked to theories concerning the social environment or collected data on environmental variables in investigations of bullying.

Risk Factors For Bullying

A 2010 meta-analysis of 153 studies conducted since 1970 on predictors of bullying and victimisation found that the strongest predictors for bullying measured in the studies were externalising behaviour, such as aggression and defiance ($r=.34$), other-related cognitions such as empathy and perspective taking ($r=-.34$), and peer influence such as peer group affiliations ($r=-.34$). According to Cohen's conventional guidelines, these estimated effects are moderate in size, suggesting that a multiplicity of factors, related to both individuals and environments, are associated with bullying behaviour (Cohen, 1992, Cook et al., 2010).

The literature on risk factors for bullying are reviewed according to three categories to demonstrate that both inter- and intra-individual factors appear to be important to understand bullying behaviour: 1) factors that likely have genetic or biological origins and are thus quite stable across environments, 2) factors that may result from a combination of genetic and environmental conditions, such as family influences, and thus are fairly stable across environments, and 3) factors that relate to children's relationships within a specific social environment and might vary across environments.

A commonly cited risk factor for bullying that has genetic underpinnings is gender. Many studies have found that boys bully more often than girls (Camodeca, 2002, Salmivalli et al., 1996, Duncan, 1999, Siann and Callaghan, 1994, Nansel et al., 2001, Salmivalli et al., 1998, Salmivalli, 2001). However, when both physical aggression and relational aggression have been assessed, boys and girls have been found to be aggressive in equal frequency (Crick et al., 2002). Moreover, some studies show girls use relational bullying more than boys, but others show similar

rates of relational bullying across genders (Espelage et al., 2004b, Björkqvist et al., 1992, Xie et al., 2002, Crick and Grotpeter, 1995).

There is some evidence that boys bully to be dominant in their social group while girls bully to secure relationships, avoid victimisation, or form coalitions against rivals. Such findings are used to explain differences in types of bullying employed by girls and boys (Pellegrini, 2002, Pellegrini and Long, 2004). Broader research evidence on aggression suggests that men tend to be more physically aggressive than women, but it remains unclear why and under what conditions. In a review of research on aggression, Geen maintains that gender differences in the use of aggression most likely result from a combination of biological and cultural factors (Geen, 1998). Given the inconsistency of findings on the relation of gender to bullying, more research is needed to establish what gender differences actually exist and what accounts for them.

Risk factors for bullying that might have genetic *and* environmental origins include: aggressiveness, mental health problems, family characteristics, and poor social skills. Each of these factors is reviewed in the following discussion.

Because bullying is a form of aggression, it follows that bullies are probably more aggressive, in general, than others, and, indeed, evidence from a range of studies suggests that bullies tend to exhibit aggressive behaviour patterns (Stattin, 2001, Kokkinos and Panayiotou, 2004, Pellegrini et al., 1999, Salmivalli and Nieminen, 2002, Stevens et al., 2002). However, as noted above, bullies are not necessarily physically aggressive.

Several studies have found that bullies (like victims) tend to have more depressive symptoms and other psychiatric disorders than other children (Roland, 2002, Sourander et al., 2000, Crick and Grotpeter, 1995, Duncan, 1999, Kumpulainen et al., 1998, Kumpulainen et al., 1999, Espelage et al., 2001, Kumpulainen et al., 2001, Haynie et al., 2001). The most troubled appear to be children who bully and are victimised (Kumpulainen et al., 1998, Schwartz, 2000). However, Olweus and others have found bullies to be no more depressive or anxious than other children (Baldry, 2005, Morrow et al., 2005, Olweus, 1994).

More research is needed to establish an association between mental health and bullying and to explain the link, should one be found. Sourander et al., found a high level of self-reported depressive symptoms at age eight to be associated with both bullying and victimisation eight years later, suggesting that depression in early school years may reflect low self-esteem, immaturity, loneliness and poor problem-solving skills, which in turn may contribute to the persistence of both bullying and victimisation. However, the authors do not offer explanations for how each of these potential mediators leads to involvement in bullying (Sourander et al., 2000). Crick and Grotpeter propose that depression might lead to engagement in relational aggression as a way to retaliate against peers or to boost a sense of competence or control by excluding or deriding others (Crick and Grotpeter, 1995).

Families might also influence children's propensity to bully. Children with cold and permissive parents, who are inconsistent and power-assertive in their discipline, are more likely to be aggressive and to bully according to several studies

(Pulkkinen, 2001, Shields, 2001, Barber et al., 1994a, Batsche, 1994, Espelage et al., 2000, Domitrovich and Bierman, 2001, Olweus, 1994, Piliavin, 2001, Stevens et al., 2002, Bowers et al., 1994). Pulkkinen offers a social learning perspective on the association of parenting to bullying by suggesting that bullies develop positive views about aggression from their parents and believe it is normative (Pulkkinen, 2001). Similarly, Dodge hypothesises that children have latent cognitive mental representations of the world which they learn through early socialisation experiences and which, in turn, affect future social behaviour (Dodge, 2002).

A recent study was the first to assess the genetic contribution to bullying behaviour and victimisation. It involved 1,116 families with 10-year-old twins and compared dizygotic to monozygotic twins. The analysis showed that genetic factors accounted for 73 per cent of the variation in victimisation and 61 per cent of the variation in bullying, with the remainder explained by environmental factors not shared between the twins. Thus the shared environment, which includes general parenting styles, did not appear to explain children's status as a bully or victim, suggesting that correlations between parent's behaviour and that of children found in other bullying studies might be more related to shared genetic composition than to parenting (Ball et al., 2008).

Evidence is also inconclusive on whether bullies lack social skills or adequate social perception. Some point to evidence which suggests that highly aggressive children misinterpret the actions of others as being hostile and thus react aggressively (Crick et al., 2002, Hoglund, 2005, Geen, 1998, Pulkkinen, 2001, Arsenio and Lemerise, 2001). Others point to evidence that some bullies read social cues well and bully because they have learned from past experiences that it is an effective strategy in reaching their goals (Arsenio and Lemerise, 2001, Sutton et al., 2001, Espelage et al., 2004a, Sutton et al., 1999, Sutton, 1999, Schwartz et al., 1993). Bullies, according to the latter perspective, have "theory of mind" skills or the ability to impute mental states to the self and to others. Theory of mind skills appear to allow children to promote social harmony by, for example, resolving conflicts based on misunderstanding but also to conceal motives and manipulate social situations (Hughes and Leekam, 2004).

If there is a relationship between aggression or bullying and social skills, it might be dependent on the type of aggression under consideration. Crick and Dodge's work suggests that only *reactively* aggressive children (those who aggress in response to a real or perceived threat) misinterpret negative social situations in ways that promote aggression (Arsenio and Lemerise, 2001, Geen, 1998). Similarly, in a study of 57 second grade students, McAuliffe et al. found that reactive aggression but not pro-active aggression (aggression aimed at a particular goal such as social dominance) was associated with hyperactivity, poor social skills, and anger expression (McAuliffe et al., 2005).

Bullies who use indirect relational aggression appear to be the more socially adept than those who use verbal or physical aggression (Björkqvist et al., 2000, Xie et al., 2002). Björkqvist hypothesises that when socially intelligent individuals choose to aggress, they often choose indirect aggression because it is less noticeable than direct forms and thus less likely to result in negative consequences (Björkqvist et al., 2000). Consistent with this hypothesis, Xie et al. found that indirect

aggression was significantly less likely to provoke retaliation than physical aggression and somewhat less likely than verbal and direct relational aggression (Xie et al., 2002).

Some researchers have suggested that if some bullies understand the intent and feelings of others, and still bully, that they do so because they lack a moral orientation, particularly a concern for others. A meta-analysis of the research concerning the relation of empathy or sympathy to aggression and other anti-social behaviours by Miller and Eisenberg suggests that empathy inhibits or at least mitigates aggressive behaviour (Miller and Eisenberg, 1988). Similarly, a more recent study of more than a million students aged 10-17 years in Columbia found that reactive aggression was related to normative beliefs about aggression, whereas proactive aggression (which more closely relates to most definitions of bullying) was not as strongly related to empathy and guilt (Chaux et al., 2005).

Olthof et al. found that bullies and their followers did not report much less guilt than other children. Instead, the researchers suggest that bullies prioritise the advancement of their own power and position over the protection of others (Olthof and Goossens, 2003, Sitsema et al., 2009). Other studies suggest that bullies' world views justify their bullying. For example, in a study of 198 nine to 12-year-old children from two Scottish primary schools, Sutton and Keogh found that children who categorised themselves as bullies tended to distrust interpersonal relationships and believe that manipulation of others was sometimes necessary to obtain one's goals (Sutton and Keogh, 2000). Similarly, Salmivalli et al. found, in their study of 589 students aged 11-13, that subjects who viewed peers as untrustworthy and hostile and who had positive self images, were particularly likely to have agentic goals (interest in dominating or leading others) and to use proactive aggression to achieve them (Salmivalli et al., 2005b).

Social status represents the third type of risk factor for bullying: those that relate to relationships within a specific social environment. Although social skills may help one to gain higher social status, social status, unlike social skills, is context specific. It represents one's position in a social hierarchy that is formed within a particular group. Those at the higher end of the hierarchy, often called "popular" children, tend to wield more power over others, are able to direct or dominate social situations, and usually have more friends than those with lower status.

Evidence suggests that aggression, in general, does not necessarily reduce social status. A number of studies have found that popularity and having friends (i.e. having higher social status) is not the same as being liked. Farmer et al. found in their study of seventh and eighth grade adolescents that categories of children whom they called "tough" boys and "popular" girls (and who might also qualify as bullies according to some definitions) were more likely to be disliked by peers than other adolescents. However, these two groups were also perceived by peers and teachers as popular leaders and athletes. Farmer and his colleagues explain their findings by referring to the concept of social aggression. Socially aggressive individuals maintain their social position by alienating, ostracising, or defaming others. Thus their prominence or popularity might result from others fearing them rather than liking them (Farmer et al., 2003). Similarly, in a network analysis of data collected from 153, 11-12 year-old children, McKinnon found children who belonged to

prominent classroom social groups and were prominent members of their respective groups, received significantly more bully nominations from their peers than did children who did not belong to prominent classroom social groups and were prominent members of their respective social groups (McKinnon, 2001).

Risk Factors For Victimization

A meta-analytic review of 205 studies by Card documents evidence that physical weakness, internalising and externalising problems, low social skills, low pro-social behaviour, and peer rejection tend to antecede victimisation, including in more rigorous studies in which initial levels of victimisation are controlled. Attributes and behaviours, which appear to be a consequence of victimisation include low self-concept, school avoidance, poor academic functioning, and peer rejection. Card notes that many of the factors that follow victimisation also precede future victimisation, suggesting a vicious cycle leading to the stability of victimisation over time (Card, 2003, Schwartz et al., 2005, Boulton et al., 2010).

The 2010 meta-analysis of research on predictors of bullying and victimisation, cited above, found that the strongest predictors for victimisation measured in the studies were: social competence or the ability to interact effectively with others ($r=-.30$) and peer status including rejection, isolation, likeability, and popularity ($r=-.35$). As noted above, these estimated effects are moderate in size suggesting that a multiplicity of factors are associated with victimisation (Cohen, 1992, Cook et al., 2010).

As with risk factors for bullying, risk factors for victimisation can be roughly divided into three groups: 1) those that may have genetic or biological origins and are thus quite stable across environments, 2) those that may result from a combination of genetic and environmental factors and thus are fairly stable across environments, and 3) those that relate to children's relationships within a social environment and may vary across environments. Victimization risk factors are reviewed according to these categories to demonstrate that both intra- and inter-individual factors appear to be important in understanding victimisation as well as bullying.

Age is a common risk factor for victimisation. Younger children usually are found to be bullied more often than older children (Nansel et al., 2001, DeVoe et al., 2003, Sourander et al., 2000, Pellegrini, 2002, Salmivalli et al., 1998, Smith and Sharp, 1994). It is important to note that younger children are not necessarily at greater risk simply because they are vulnerable to bullying by older children who tend to be stronger and/or more powerful. Evidence suggests that the majority of reported victimisation is by children in the same class or year group as the victim (Charach et al., 1995, Smith and Madsen, 1999). Smith and Madsen report that school-based surveys show a fairly steady downward trend in reports of victimisation for children between the ages of eight and 16. However, their own findings suggest that children at the younger end of this range tend to define bullying more broadly than older children by ignoring the imbalance of power criterion and including such actions as fighting. Thus it remains unclear whether bullying actually decreases during the early elementary years (Smith and Madsen,

1999). Additionally, victimisation sometimes increases with transitions to middle school, followed by decreasing rates in high school and beyond (Pellegrini and Long, 2002, Nansel et al., 2001).

Espelage et al. and Egan and Perry have suggested that decreases in victimisation with time may result from improved skills in handling bullying situations (Espelage et al., 2001, Egan and Perry, 1998). Smith and Madsen find some support for this hypothesis from interviews with 48 students aged seven-14 in eastern England. They found that older students reported more complex responses to bullying and their responses were rated by young adults as more effective than those reported by younger students (Smith and Madsen, 1999). However, the authors acknowledge that their small, non-random sample does not provide strong evidence of improved skills. There is no evidence that decreases in victimisation over time results from decreases in bullying. Smith and Madsen reviewed research in this area and found only slight or non-monotonic age changes in reports of bullying others. Thus, over time, bullies might focus their bullying on fewer victims (Smith and Madsen, 1999).

Some studies show that boys are more likely to be victims than girls (Siann and Callaghan, 1994, Craig et al., 2001, Rigby and Slee, 1991). Others demonstrate that boys are more likely to be persistent victims; (Camodeca, 2002), and still others that they are equally likely to be victims as girls are, particularly when both direct and indirect/relational bullying are measured (Crick et al., 2002, Duncan, 1999, Olweus, 1994). However, Schafer et al. had mixed findings about the association between gender and type of bullying depending on whether data were taken from peer- or self- reports (Schafer et al., 2002).

As with gender, there is no clear trend on whether race or ethnicity is correlated with victimisation. Some studies found no differences among ethnic groups in victimisation (Siann and Callaghan, 1994, Van Blyderveen et al., 2005, Gibbs and Sinclair, 2000), while others found that the ethnic diversity of a school was related to rates of bullying for specific ethnic groups, but those relationships have not been consistent across studies (Hanish and Guerra, 2000, Juvonen et al., 2003, Bellmore et al., 2004). Perhaps due to the inconsistent findings on the relationship of gender or race and victimisation, few explanations for differences have been offered.

In several bullying studies, physical weakness or disabilities have correlated with victimisation (Perry et al., 2001, Hodges et al., 1997, Card, 2003). Explanations for this association tend to focus on victims' inability to effectively defend themselves (Hodges et al., 1997).

Next is a discussion of risk factors for victimisation that are traditionally considered to have both genetic and environmental origins, including mental health problems, family characteristics, and poor social skills. Each of these factors is discussed in turn.

As noted above, both bullying and victimisation are associated with a range of psychological problems (e.g. depression and psychosomatic symptoms) according to several studies (Crick et al., 2001, Kokkinos and Panayiotou, 2004, Baldry, 2004,

Kumpulainen et al., 1998, Rigby, 2000, Roland, 2002). In a meta-analytic review of 23 cross-sectional studies on the association between victimisation and several indicators of psychosocial maladjustment, Hawker and Boulton found that victimisation and depression were clearly associated, independent of shared method variance. However, they also caution that only one study in their analysis measured relational or indirect victimisation, and only one study used more than one item to assess peer-reported victimisation (Hawker and Boulton, 2000). In a more recent study of Italian adolescents, which did distinguish between direct and indirect bullying, Baldry found that being a victim of indirect bullying was the strongest predictor of withdrawn behaviours, somatic complaints, and anxiety/depression, independent of direct victimisation, which significantly predicted somatic complaints, anxiety, and depression, but not withdrawn behaviours (Baldry, 2004).

Swearer et al. suggest an explanation for the link between depression and victimisation. They note that depression is often associated with low self-esteem and that children with low self-esteem may be less likely to defend themselves in bullying situations and may even exhibit behaviours, like crying, that communicate to bullies that they are unlikely to retaliate (Swearer et al., 2004). More research is needed to understand the association between victimisation and psychological problems and how coping strategies, time, and forms of harassment moderate the effects of victimisation on psychological functioning (Ladd and Ladd, 2001, Kochenderfer-Ladd, 2004).

Several studies have found associations between parenting and peer victimisation. A study by Shield and Cicchetti, of 169 maltreated and 98 non-maltreated eight-12 year-old children who attended a summer camp, provided evidence that maltreatment at home is associated not only with bullying others, but also with being bullied. They also found this association to be mediated by emotional dysregulation. The authors suggest that the arousal and hyper-vigilance that children learn in violent homes may be maladaptive in social settings and that children develop working models of relationships as dangerous, which in turn, guide their behaviour among peers. Shield and Cicchetti, however, also note that although the maltreated children in their study were more likely to have bully-victim problems, 68 per cent of the maltreated children in their sample were neither victims nor bullies. Thus the nature of the relationship between maltreatment and bullying and victimisation requires further investigation (Shields, 2001). Parental psychological control has also been shown to be associated with victimisation. Explanations for the association suggest that parental control undermines children's confidence which, in turn, leads to internalising behaviours that invite victimisation (Barber et al., 1994b, Barber, 1996). However Schwartz found no relationship between controlling parenting and victimisation (Schwartz et al., 1997).

Some have found associations between overprotective parenting and victimisation. Perry suggests that over solicitous parenting may interfere with the development of risk taking behaviours valued by peers (Olweus, 1994, Perry et al., 2001). However, Stevens found no difference in the family functioning of victims and children not involved in bullying (Stevens et al., 2002).

As mentioned, a more recent twin study found that genetic factors accounted for 73 per cent of the variation in victimisation. The remainder was explained by

non-shared environmental factors. This finding suggests that general parenting styles (such as being controlling or overprotective) do not contribute to the likelihood of a child being victimised. Instead, parents appear to pass along genes that make children more prone to victimisation. Factors in environments that twins in the study did not share with each other were also associated with their status as a victim or bully. Such factors could include interactions with peers that affect each twin differently (Ball et al., 2008).

There is also evidence that poor social skills are associated with rejection and victimisation. For example, rejected or victimised children, compared to other children, may be less focused on how their actions affect others and less interested or able to participate in a group or to understand and predict the internal states of other children (Hubbard, 2001, Bukowski et al., 2001, Kaukiainen, 2002). Hawker and Boulton found, in their meta-analysis of cross-sectional studies on victimisation and psychosocial maladjustment, that victims tend to have negative views of themselves in the social realm (Hawker and Boulton, 2000). Being assertive may be a particularly important skill in preventing victimisation. Non-victimised boys have been found to be no more aggressive than victims, but were more assertive (Schwartz et al., 1993).

Other studies suggest that victims, in general, are no less perceptive about social dynamics than other children but that their low self-regard makes them easy targets for bullying because other children sense that they are unlikely to assert or defend themselves. A study of fifth and sixth grade students, for example, provided evidence that victims understand how they are perceived by others and agree with those perceptions (Gottheil, 1999). Similarly, Egan and Perry found, in their study of third through seventh grade students, that low self-regard, particularly low self-perceived peer social competence, contributed to victimisation beyond sex, age, earlier victimisation, and four behavioural risk variables (Egan and Perry, 1998).

A final risk factor for victimisation is one that might be more associated with environmental than genetic factors. A fair amount of research shows that victims are more likely to have fewer friends, to be rejected by peers, and to have friends who are also victims than other children (Hodges et al., 1997, Boulton et al., 2002, McKinnon, 2001, Pellegrini et al., 1999, Perry et al., 1988, Salmivalli et al., 1996, Nansel et al., 2004). There is also evidence that children with friendships characterised by low support and high conflict are more likely to be victimised than other children (Boulton et al., 2002) and that children whose reciprocal friends display pro-social behaviour are less likely to be victimised (Lamarche et al., 2006). Authors have suggested that friends may directly help victimised children in difficult social situations or friends might model behaviour that prevents bullying (Lamarche et al., 2006).

The importance of friendship is suggested by evidence that it moderates the relationship between other risk factors and victimisation. In a study by Hodges et al., children with such risk factors as internalising and externalising problems and lack of physical strength, but who also had friends, experienced less victimisation than similar children without friends (Hodges et al., 1997). In a review of research on victimisation and its association with group dynamics, Bukowski and Sippola note that even social behaviours that are threatening to smooth group functioning, such as

aggression and passive withdrawal, do not guarantee victimisation. Correlations between such traits and victimisation are typically less than .5 and appear to be significantly moderated by measures of friendship. These authors call for more inquiry into how and why friendship reduces risk (Bukowski and Sippola, 2001).

The quantity and quality of friendships might be determined by individual traits, such as social skills, as well as by the social dynamics of a group. Deptula found that rejected sixth grade boys in her study had fewer friends⁷. However, the friends they did have did not report lower friendship quality. This finding might indicate that rejected boys have the social competence to be good friends to others. Deptula suggests that their social status may offer them few friendship choices (Deptula, 2003). Those assigned to low status, based on early impressions of others, may have a difficult time changing their status and making friends, as previously discussed.

Research by Pellegrini and Long suggests that to avoid victimisation, it is better to have many friends than a few good friends. Among their sample of 421 fifth–seventh grade students, being nominated as being liked by a large number of children was a stronger protective factor in bullying situations than the number of reciprocal friendships. Children may fear more retribution if they bully a child liked by many other children than if they bully those with a smaller number of reciprocal friends. These findings support the authors’ hypothesis that friends prevent victimisation because of bullies’ fears of damage to reputation or retribution (Pellegrini and Long, 2002).

The evidence reviewed in this section points to the need for more research on the risk factors for bullying and victimisation as well as on the mechanisms involved in such associations. At this point, it seems probable that certain children, due to propensities that stem from genetic influences and past experiences, are more likely to become bullies or victims than others. Additionally, evidence suggests that the dynamics of particular social environments—particularly social hierarchies—also may be key factors in fostering or preventing bullying.

Social Environments And Bullying

Although interest in the roles of students outside of the bully-victim dyad has increased in recent years, to date there is limited evidence on the relation of social dynamics of schools and peer groups to bullying (Pellegrini, 2002, Salmivalli, 2010). This section provides a review of evidence on the association between social environmental factors and behaviour in bullying situations. It begins with an overview of research on the impact of school environments on children’s behaviour in general. Evidence that children behave and are treated differently in different social environments is then considered. Research on the behaviour of bystanders in bullying situations follows, including how their actions and inactions appear to affect bullying.

Schools vary in levels of general disruptive behaviour and delinquency, much more so than would be expected based on differences in the characteristics of

⁷ The rejected students in this study were not necessarily victimised. Victimisation was not measured.

students they enroll (Rutter et al., 1998). There is also some evidence that schools vary in levels of bullying behaviour. Gregory et al. used hierarchical linear modelling techniques on data collected from over 7,300 ninth-grade students and 2,900 teachers randomly selected from 290 high schools, to produce evidence that schools which provide students with a more structured, supportive environment had lower bullying rates than schools with less structured and supportive environments. However, the researchers also found more variation in bullying *within* schools than *between* them, suggesting that factors related to smaller groups or individuals have a greater influence on bullying than do school-wide factors (Gregory et al., 2010). A Finnish study of nearly 7,000 students in 378 classrooms found that classroom differences accounted for 13 per cent of the variation in victimisation and 10 per cent of the variation in bullying behaviour (Kärnä et al., 2008, Kärnä et al., 2010).

It is not clear which aspects of the school environment or sub-environments are associated with specific behaviours such as bullying. Olweus found that teachers' attitudes were related to levels of bullying (Olweus, 1994), and more recently Hektner and Swenson found that teachers in their study who believed bullying to be normative were less likely to intervene in bullying situations, which in turn, was associated with higher levels of victimisation at the school (Hektner and Swenson, 2011). However, Hirschstein et al. found that teachers' belief that "students are overly sensitive to hassling by peers" did not predict students' experiences and attitudes related to bullying at school (Hirschstein, 2003).

Evidence that children's behaviours sometimes change when they move to new social environments also suggests the importance of environments in determining their behaviour. Salmivalli's work shows that children tend to take on different roles in bullying situations. In addition to bullies and victims, there are also assistants who do not initiate but join in the bullying, reinforcers who encourage the bullying, defenders who help victims, and outsiders who are not involved in bullying in any way (Salmivalli et al., 1998, Salmivalli, 1999, Salmivalli, 2001, Sutton and Smith, 1999, Goldbaum et al., 2003, Olthof and Goossens, 2003). Salmivalli and her colleagues found consistency of roles in bullying situations tends to be stronger when the social environment does not change (Salmivalli et al., 1998). Other studies have found that children who become victims in one setting often become victims in other settings (Perry et al., 2001, Laszkowski and Cillessen, 2005, Camodeca, 2002). Cards' literature review notes that victimisation is particularly stable in studies that track victimisation using peer reports (Card, 2003). Similarly, Dodge et al. and Coie and Kupersmidt found social preference in play groups of African American boys correlated significantly with classroom social preference after several play sessions. The authors conclude that boys in these studies have some characteristics that leads peers to respond to them consistently across settings (Dodge et al., 1990, Coie and Kupersmidt, 1983). However, in the Coie and Kupersmidt study, the authors also found that neglected boys (shy children with no friends) were more visible and active when interacting with a new group of boys, not known before the study, than they were when interacting with a familiar group. Also, popular boys (well-liked by peers) were seen as leaders by their peers in the familiar groups, but not in unfamiliar ones. These findings suggest that, while some children behave fairly consistently across contexts, children's behaviour can be affected by new social groups (Coie and Kupersmidt, 1983).

Many studies show that bullying usually occurs in the presence of other children, besides the bullies and victims, again suggesting a social aspect to bullying (Atlas and Pepler, 1998, Craig and Pepler, 2000, Xie et al., 2002, O'Connell et al., 1999, Sutton and Smith, 1999, Hawkins et al., 2001). Moreover, what bystanders do, or do not do, seems to matter. Bullying appears to be fostered by a high percentage of children who either join in the bullying or do not intervene on behalf of victims and a low percentage who do intervene. The degree to which children join in the bullying, stand by idly, or try to intervene on behalf of victims, varies a great deal across studies (Hawkins et al., 2001, Menesini et al., 1997, Salmivalli, 2001). For example, one study, which involved videotaping students on a school playground and the coding of 53 segments of videotape that contained a peer group viewing bullying, found that peers joined in the bullying about 22 per cent of the time, watched without joining about 53 per cent of the time, and intervened about 25 per cent of the time (O'Connell, 1999). Craig and Pepler, however, found the rate of intervention to be much lower, based on observations of 314 bullying episodes at two school playgrounds. These authors found that peers intervened in only 12 per cent of episodes but were involved, in some capacity, in 85 per cent of episodes (Craig and Pepler, 2000). Other studies have found that most children hold negative views of bullying and are empathetic toward victims. However, even those with anti-bullying attitudes do not necessarily intervene (Rigby and Slee 1991; Menesini, Eslea et al. 1997; O'Connell, Pepler et al. 1999; Sutton and Smith 1999). Bullying, it appears, is not often impeded by children defending victims.

Several studies have tried to determine what types of children are most likely to help in bullying situations. There is considerable evidence from the broader research on pro-social behaviour that feeling empathy for others leads to helping behaviour (Batson, 1998). For example, in a study of fifth-eighth graders, Goldbaum et al. found that defending victims was related to having pro-social schemas and capacity for empathy (Goldbaum et al., 2003) and Hektner and Swenson found that students in their study who felt empathy for victims were more inclined to intervene, although not all reported that they actually do intervene (Hektner and Swenson, 2011). Several studies have found that girls are more likely to help victims than are boys (O'Connell, 1999, Rigby and Slee, 1991, Trach et al., 2010). Rigby and Slee suggest that girls may defend victims more often due to a greater capacity for empathy (Rigby and Slee, 1991). Salmivalli et al. explain their findings that girls are more likely to defend victims than are boys in terms of societal expectations that girls serve as caretakers (Salmivalli et al., 1996).

Other studies have found a connection between children's moral perspective and defending behaviour (Olthof and Goossens, 2003). A study of 1,452 students in grades seven–10 in Bangladesh found that students who scored higher on shame acknowledgement (admitting shame, accepting responsibility, making amends) and low on shame displacement (blaming others) were more likely to intervene to prevent bullying (Ahmed, 2005). A series of studies conducted as part of the International Bystander Project assessed students' predictions about whether they would assist victims (rather than actual behaviour) and their explanations for those predictions. Students who predicted they would help victims most often gave ethical and empathy-based reasons for their anticipated actions (Rigby and Johnson, 2005a, Rigby and Johnson, 2005b, McLaughlin et al., 2005, Ahmed, 2005, Baldry, 2005, Rolider and Ochayon, 2005).

As discussed, Batson notes that dispositional factors tend to account for only 30 to 40 per cent of variance in pro-social behaviour. Thus group factors might exert important influences on defending behaviour. There is evidence that defenders tend to be friends with other defenders. Thus norms established in social groups might influence defending, as well as other behaviour in bullying situations (Salmivalli et al., 1997) Moreover, Kärnä et al found, in the previously mentioned study of nearly 7,000 students in 378 classrooms, that between-classroom differences accounted for 35 per cent of the variation in defending behaviour (Kärnä et al., 2010). Batson also points to evidence that intra-individual variables better predict pro-social behaviour when situational pressures are weak (Batson, 1998). Bullying situations arguably exert strong pressures on children, and such pressures may explain why few children choose to intervene on behalf of victims.

There has also been limited research on children who do not defend victims. Theory on helping behaviour often explains the absence of helping in terms of cognitive processes that lead to a lack of empathy (Jones, 1998). However, research suggests that most children are opposed to bullying and are concerned about victims (Boulton et al., 1999, Charach et al., 1995). For example, in their study of Australian children, Rigby and Slee found that the majority of children in their sample indicated that they were opposed to bullying and supportive of victims. Their findings also pointed to a trend toward diminishing sympathy for the victim with increasing age. Other studies have also found that younger children tend to be more empathetic toward victims and more likely to assist them than older children (Jeffrey et al., 2001, Trach et al., 2010, Black et al., 2010, Lang, 2010). Rigby and Slee note that such evidence contradicts predictions that children develop increased capacity for empathy as they grow older and suggests that children's desire to believe in a just world may lead them to revise their appraisals of victims as deserving of their treatment (Rigby and Slee, 1991). Evidence also suggests that derogation of victims is more likely when helping will impose significant costs on the helper or the helper cannot effectively aid the victim (Batson, 1998).

As part of the International Bystander Project, researchers in England and Australia interviewed children near the end of primary school and the beginning of secondary school about their propensity to ignore bullying situations they witnessed. These students reported that they felt the bullying was not their business, that they feared being bullied themselves as a consequence of defending, that they blamed the victim for his or her situation, that they thought defending might be futile, or that they enjoyed the spectacle of bullying (Rigby and Johnson, 2005a, McLaughlin et al., 2005).

Several studies show that, like children, teachers, parents and other adults often do not intervene in bullying situations (Charach et al., 1995, Doll et al., 2004, Xie et al., 2002) For example, based on observations of 314 videotaped bullying episodes at two school playgrounds, Craig and Pepler found that staff intervened in 4 per cent of the episodes (Craig and Pepler, 2000). By contrast, Menesini et al. found, based on responses to a survey of over 8,000 children in Italy and England, that teachers were generally seen to intervene between "sometimes" and "almost always" (Menesini et al., 1997). Common explanations for not telling teachers about

bullying episodes include fear of retaliation or lack of confidence in teachers' ability to protect victims (Doll et al., 2004, Unnever and Cornell, 2004).

The evidence discussed above, although limited, suggests that environmental factors are associated with children's anti-social behaviour in general and more specifically with their behaviour in bullying situations. Understanding the dynamics of social environments thus appears important to understanding why bullying occurs. The next two sections of this review examine two aspects of groups that appear particularly likely to affect children's behaviour in general and in bullying situations in particular: social norms and social hierarchies.

Social Norms

A wide range of studies have provided evidence that social norms help to explain some child behaviours, but evidence is limited on the degree to which social norms might explain behaviour in bullying situations.

Studies that show that children behave similarly to their friends suggest the existence of social norms. For example, in his review of research on the developmental significance of friendships in childhood, Hartup notes that adolescents appear to be similar to their friends in terms of school attitudes, attitudes about non-normative behaviour, and sexual experience (Hartup, 1992).

A key question is whether social norms are affecting children's behaviour or if children who are predisposed to certain behaviours simply choose similarly behaved friends. In their review of research on the role of peer groups in individual behaviour, Rutter, et al. cite a broad range of studies that show strong selection effects. However, they also note that when selection effects are taken into account, aspects of peer groups appear to affect the likelihood of a child continuing to display anti-social behaviour (Rutter et al., 1998). Berndt and Savin-Williams come to the same conclusion in their review of research on the relationship between individual and peer behaviour (Berndt and Savin-Williams, 1993).

In a study involving 189 eighth graders in 17 school classes in Finland, Salmivalli found that eighth grade students' own sixth grade behaviour and their friends' behaviour both were predictive of their current behaviour. Additionally, in many cases, the impact of the current peer network was an even more powerful predictor of behaviour than the students' own behaviour two years prior (Salmivalli et al., 1998). In a longitudinal study of 337 12-14 year-olds, Sijtsema et al. found that adolescents who had aggressive friends became more aggressive over time, particularly adolescents who had friends who were instrumentally aggressive (i.e. behaved badly for self-serving reasons rather than out of frustration) (Sijtsema et al., 2010). Research by Werner and Crick (2004) suggests that girls' relational aggression is more influenced by their friends' relational aggression than are boys' relational aggression and, conversely, that boys' physical aggression is more influenced by their friends' physical aggression than are girls'.

Other studies have looked at the impact of the behaviour of children on others who are not necessarily their friends. For example, in a study by Dodge et al.

of African American children in grades one-three, the behaviour of “marginally deviant children” (especially boys) appeared to be influenced by the amount of deviant behaviour in their classrooms after controlling for earlier behaviour, gender, and ethnicity (Dodge et al., 2003). Perhaps the most famous study on the emergence of norms in children’s groups is the Robbers Cave study. In this experimental study, 22 boys, selected for being alike on key variables, were arbitrarily divided into two groups. The two groups quickly developed contrasting behavioural norms (Sherif et al., 1961b).

Evidence Of Relationship Between Social Norms And Bullying

In his early writing on bullying, Olweus suggested that group mechanisms that affect children’s perception of what is acceptable behaviour likely affect their propensity to engage in bullying with others (Olweus, 1994). Espelage and her colleagues found evidence that bullying, more so than fighting, is associated with group membership (Espelage et al., 2003). In a study of 459 11-12 year-olds in Finland, Salmivalli et al. found that an individual child’s behaviour in bullying situations was strongly associated with how the members of his or her network behaved in such situations (Salmivalli et al., 1997). More recently, a three year longitudinal study of 2,678 elementary, middle, and high school youth attending 59 schools in Colorado in the U.S. found that student’s normative beliefs supporting bullying predicted increases in bullying behaviour (Guerra et al., 2011). Similarly, students who participated in studies in England and Australia, which were conducted as part of the International Bystander Project, were more likely to expect that they would defend a victim of bullying if they felt that their peers expected them to do so. Interestingly, neither teachers’ nor parents’ perceived expectations were associated with children’s predictions about their own behaviour (Rigby and Johnson, 2005b, McLaughlin et al., 2005).

Social norms that appear to prevent bullying are those that emphasise responsibility among individuals to one another. For example, a study of 1,729 Greek students, aged 11 to 14 years, found that students in classrooms high in “collective efficacy,” meaning classrooms in which students reported trusting relationships among class members and a general willingness to intervene in the case of aggressive or bullying incidents, tended to report fewer incidents of bullying than students in classrooms low in collective efficacy. In another study, Lee found that the collective feeling among students in a school tended to be associated with less aggressive interactions (Lee, 2010, Sapouna, 2010).

Few studies have investigated why norms are associated with behaviour in bullying situations. Bukowski and Sippola suggest that enforcement of norms through behaviours, such as bullying, help to limit behaviours that are threatening to group cohesion such as aggression and passive withdrawal. The authors refer to a longitudinal study of 197 students in grades three, four, and five in which aggression and passive withdrawal were found to be associated with victimisation. However, Bukowski and Sippola also note (as cited above) that correlations between aggression and withdrawal and victimisation in various studies are typically less than .5 and appear to be significantly moderated by measures of friendship (Bukowski and Sippola, 2001). Similarly, in a longitudinal study of children in

kindergarten through third grade, Kochenderfer-Ladd found that there was almost 2.5 times the number of non-aggressive non-asocial victims as there were aggressive victims. The authors thus concluded that other factors also lead to victimisation (Kochenderfer-Ladd, 2003).

In a chapter on peer ecologies, Rodkin emphasises that, to understand group influences on bullying, one should consider not only homophily (how individuals become similar to one another) but also complementarity (how individuals differentiate in groups). Rodkin cites Sherif's findings that children took on different roles within groups in the Robber's Cave experiment (Rodkin, 2004). The next section on social hierarchies looks more closely at various roles group members' play, their function within the group, and how hierarchies might be related to behaviour in bullying situations.

Social Hierarchy

As discussed, a social hierarchy is a system in which people are arranged according to their importance. Evidence suggests that such hierarchies arise as a result of competition for resources including power and friendships and that group members use both pro-social and coercive strategies to obtain resources. Which strategy one chooses appears to be a function of development, individual characteristics, and social context. In general, cooperating strategies appear to be more sustainable than coercive ones because they reduce immediate personal costs of conflict and increase probability of future resource acquisition through relationships. However, coercive strategies (such as gaining cooperation from others through threats) may also persist, if applied shrewdly (Axelrod, 1984, Hawley, 1999).

Evidence from ethnographic studies on social hierarchies in children's groups suggests that some children learn how to use coercive strategies to obtain power. Adler and Adler observed that clique leaders maintained the loyalty of other clique members by alternating their attention and favour among different group members. As a result, members enjoyed their temporary status when they were in favour and worked to regain it when they were out of favour. Leaders established their authority in the wider social realm by deriding children outside the clique. This behaviour served to foster solidarity within the clique as they bonded over their "collective domination of others." Students in Adler and Adler's study also reported that most children side with a clique member in any dispute between a popular clique member and someone else because "they knew clique members banded together and that they themselves could become the next target of attack if they challenged them" (Adler and Adler, 1995).

Similarly, in two ethnographic studies of adolescent girls, girls often explained that they spread rumours or excluded other girls from social groups to establish and maintain their position within the groups (Merten, 1997, Owens et al., 2000). Moreover, lower status girls in Merten's study were hesitant to be mean to higher status girls, fearing that they and their friends would retaliate (Merten, 1997). Bishop et al. interviewed middle and high school age students, both boys and girls, in New York and also found that harassing and humiliating weaker, less-popular

students was a common method to increase one's own status at school. Additionally, victims' friends rarely defended them and sometimes joined in the bullying to boost their status (Bishop et al., 2004)".

Survey-based studies have produced findings in line with those of Adler and Adler, Owens et al., Merten, and Bishop et al. In his study of 2,940 boys and 2,508 girls between the ages of nine and 18 in Australia, Rigby found that 33.5 per cent of boys and 25.9 per cent of girls believed that bullying would prevent one from being bullied oneself (Rigby, 2002). Charach et al. surveyed 211 students in grades four to eight in Toronto, Canada and found that the most common reasons students reported for bullying were: desire to feel powerful and desire to be "cool" (Charach et al., 1995).

A number of studies have found that bullying behaviour, particularly relational aggression, is associated with high social position. For example, Witvliet et al. interviewed 461 fourth to sixth grade students about peer groups and the popularity of their peers. They used a social cognitive mapping procedure to identify peer groups, and found that, groups that were perceived as highly popular but were not well liked, tended to show a large amount of bullying compared to groups low in perceived popularity and highly liked. The authors argue that bullying serves as a social strategy to obtain or maintain membership in popular peer groups (Witvliet et al., 2010). Similarly, in a study of third, fifth, seventh, and ninth grade students from two Midwestern school districts in the U.S., Rose et al. found relational aggression to be positively related to perceived popularity when overt aggression was controlled, but that overt aggression was not related to popularity when relational aggression was held constant. The authors conclude that relationally aggressive acts, which are often more subtle and sophisticated than overt aggression, share an important relation with perceived popularity. However, they also note that, because overt and relational aggression were also strongly related, there are also popular young people who are both relationally and overtly aggressive (Rose et al., 2004). Xie et al. produced similar results from their microanalysis of peer conflicts described in interviews with early adolescents. The research team found that social aggression was associated with higher levels of social network centrality than other forms of aggression (Xie et al., 2002). Additionally, Salmivalli et al., in their survey of 11-12 year-olds, found that bullies, as well as children who assist in the bullying or reinforce it, belonged to larger social networks than did children who were victims, defended victims, or stayed outside of bullying situations (Salmivalli et al., 1997).

As noted earlier in the review, several studies have found that relatively few students who witness bullying decide to defend victims. Even those who view bullying negatively, seldom intervene (Salmivalli, 2001, Bishop et al., 2004, O'Connell, 1999, Hawkins et al., 2001, Sutton and Smith, 1999). Research on social hierarchies elucidates these findings. Children in lower positions in a social hierarchy may be hesitant to confront those in higher positions for fear of losing status and becoming victimised themselves. Indeed, there is research evidence that some children choose to join in the bullying to prevent this outcome (Adler and Adler, 1995, Owens et al., 2000, Merten, 1997, Bishop et al., 2004, Rigby, 2002, Charach et al., 1995).

Additional evidence that social hierarchies are factors in bullying comes from findings that higher status children are more likely to intervene on behalf of victims (McKinnon, 2001, O'Connell, 1999). Salmivalli et al. have found that defenders tend to be well liked and accepted by their peers. The authors suggest that these children may be willing to defend victims because of their high social status (Sainio et al., 2011, Salmivalli et al., 1997, Salmivalli et al., 1996). If the reason that many students decide not to defend victims is that they fear losing status or being victimised themselves, it would follow that children who are secure in their high social status might be immune to such retribution and thus more willing to intervene.

Recent reviews of school-based anti-bullying efforts have yielded mixed results (Ferguson et al., 2007). For example, a 2004 meta-analysis of 14 whole-school anti-bullying programmes found small to negligible effect sizes for desired changes in victimisation (Smith et al., 2004a). A 2008 meta-analysis of 16 studies in Europe, Canada, and the U.S. found positive effect sizes for only one third of the study variables, (primarily related to changes in knowledge, attitudes, and perceptions of bullying) but no changes were found for bullying behaviours. A recent assessment of the impact of the Olweus Bullying Prevention Programme, involving 56,137 students in 107 schools in Pennsylvania in the U.S., showed a general reduction in student's self-reports of bullying others after two years. However, self-reports on being victimised varied by age group, with some groups showing no positive programme effects (Shroeder et al., 2011).

The lack of consistent findings across studies might be due, in part, to methodological issues. Frey et al. noted that most evaluations rely on student reports of bullying before and after an intervention and that exposure to intervention materials may bias post-test reporting by sensitising students to their own bullying and that of others. Thus research based on observations, rather than self-reports, might yield more valid findings (Frey et al., 2009). Moreover, until recently, there had been no large-scale randomised clinical trials of a school-wide bullying prevention programme. Without such trials, it is difficult to assess the impact of interventions (Swearer et al., 2010). The large-scale evaluation of the KiVa Anti-bullying Programme in Finland, involving 8,237 students aged 10-12 years, included the random assignment of 78 schools to intervention and control conditions. Results indicated that, after one year of the intervention - which focused on fostering empathy, self-efficacy, and anti-bullying attitudes and behaviour of bystanders - victimisation in the experimental schools was reduced by 33 per cent according to peer reports and by 17 per cent according to self-reports compared to the control schools (Kärnä et al., 2011). Additionally, an evaluation of 5,651 students in the study showed that after nine months of the intervention, control school students were 1.32 to 1.94 times as likely to be bullied as students in the intervention schools (Salmivalli et al., 2011). These results, particularly those based on peer reports, are an improvement over those from other evaluations. Based on a review of 30 evaluations of bullying interventions conducted since 1996, Farrington and Ttofi found that, on average, bullying was reduced by 20-23 per cent in experimental schools compared with control schools (Farrington and Ttofi, 2009).

Another, more basic challenge to identifying and designing effective interventions is the lack of understanding of all of the causes of bullying. The review above suggests the importance of looking beyond individual characteristics of

bullies and victims to understand why bullying among children occurs. Although certain characteristics are common among bullies and among victims, evidence suggests that factors in the social environment also contribute to the persistence of bullying. Bullying behaviour usually happens in groups, and most group members choose to join in the bullying or remain neutral rather than defend a victim. Social norms might help to explain typical bystander behaviour. A recent assessment of a social norms intervention suggests the impact of changing norms on bullying behaviour. The intervention in five middle schools in New Jersey in the U.S. began with an anonymous survey of students which showed that students misperceived norms regarding bullying. They believed pro-bullying behaviour and attitudes were more frequent than was the case. Such a finding suggests “pluralistic ignorance” on the part of students⁸. The schools implemented information campaigns to publicise accurate norms. The pre/post intervention comparison showed reductions in rates of bullying ranging from 17 and 35 per cent among the schools (Perkins et al., 2011). The KiVa and social norms interventions both suggest the power of changing the perspectives of not only bullies and victims, but other students as well.

Research on social hierarchies among children suggests another important group variable related to bullying. In these studies, many children report that they strategically assess their environments and either join in bullying or avoid confrontations with powerful peers (who use bullying tactics) to increase or maintain their own position in the hierarchy or to avoid becoming victimised themselves.

Such findings are in line with the prediction that children often do not defend victims because they are caught in social dilemmas, situations in which short-term, individual interests outweigh long-term collective interests. As Liebrand notes, based on a review of social dilemmas studies, people tend to avoid futile actions, especially those that are costly to them (Liebrand et al., 1992). Defending victims appears to be a futile and sometimes costly action. The concept of social dilemmas and its relationship to anti-social behaviour is reviewed in the next chapter. The empirical study at the centre of this thesis is the first investigation of how social dilemmas might contribute to bullying behaviour among children.

Summary

Research on bullying, like other anti-social behaviours, has traditionally focused on risk factors, specifically those associated with bully or victim status. Many of the interventions used in schools are based on reducing such risk factors. For example, victims are taught to be more assertive or bullies are taught to be more empathetic. In recent years, a growing number of researchers have maintained that a fuller understanding of bullying requires inquiry beyond the bully-victim dyad into the social environments in which bullying occurs.

According to most research on bullying, a person is being bullied when he or she is exposed, repeatedly and over time, to negative actions on the part of one or

⁸ Groups show pluralistic ignorance when members privately reject a norm, but assume (incorrectly) that most others accept it.

more other individuals. Prevalence studies generally find that 20 to 40 percent of school-age children and adolescents are victimised three or more times in a year.

The clearest risk factors for bullying according to existing research are aggressiveness, lack of empathy, and peer pressures. The clearest predictors for victimisation include: lack of social competence or the ability to interact effectively with others and peer status including rejection, isolation, likeability, and popularity. However, all of these factors tend to have only moderate effects suggesting that a multiplicity of factors, related to both individuals and environments, are associated with bullying and victimisation.

Salmivalli's work shows that children tend to take on different roles in bullying situations. In addition to bullies and victims, there are also assistants who do not initiate but join in the bullying, reinforcers who encourage the bullying, defenders who help victims, and outsiders who are not involved in bullying in any way. Although interest in the roles of students outside of the bully-victim dyad has increased in recent years, to date there is limited evidence on the relationship of social dynamics of schools and peer groups to bullying.

Although bullying usually happens in the presence of other students, few students choose to intervene on behalf of victims. Research suggests that bullying or aiding a bully can help boost students' status in the social hierarchy and that defending a victim can reduce status and leave the defender vulnerable to victimisation. Such findings are in line with the prediction that children often do not defend victims because they are caught in social dilemmas and wish to avoid futile or dangerous actions. The concept of social dilemmas and its relationship to anti-social behaviour is reviewed in the next chapter. The empirical study at the centre of this thesis is the first investigation of how social dilemmas might contribute to bullying behaviour among children.

Chapter Eight: The Impact Of Social Dilemmas On Behaviour

In the 1940s and early 1950s, social psychologists and mathematicians developing a game theory began to focus on individuals' strategic interests in particular types of settings and the ways in which conflicting parties are interdependent (Pruitt and Kimmel, 1977). The concept of social dilemmas grew out of this work and provides insight into why group members often behave anti-socially under particular conditions for strategic reasons. This chapter will include a discussion of the group conditions that characterise social dilemmas; the etiology and sequelae of anti-social behaviour - particularly bullying behaviour - when viewed through the lens of social dilemmas; various factors that affect behaviour in social dilemmas; the research methods used to assess the impact of social dilemmas on behaviour; and strategies that help groups to prevent or overcome such dilemmas.

What Are Social Dilemmas?

Social dilemmas are “situations in which each decision-maker is best off acting in his own self-interest, regardless of what the other persons do. Each self-interested decision, however, creates a negative outcome or cost for the other people who are involved. When a large number of people make the self-interested choice, the costs or negative outcomes accumulate, creating a situation in which everybody would have benefitted had they decided not to act in their own private interest” (Van Lange et al., 1992, Dawes et al., 1977). Thus, in a social dilemma, individuals must choose between maximising their own interests or that of the collective. Dilemmas ensue only when there is no central authority to effectively enforce cooperative behaviour (Yamagishi, 1988, Yamagishi, 1986, Van Lange et al., 1992, Komorita and Parks, 1995, Axelrod, 1984).

Some models of social dilemmas assume that only two people are interacting at a time (such as the famous Prisoner's Dilemma). Other models, called n-person dilemmas, involve more than two people. This latter type of dilemma might better reflect real life experiences, in which interactions are rarely confined to dyads (Van Lange, 2001). In a common n-person social dilemma called a “public goods dilemma,” an individual is reluctant to contribute to a public good (something that benefits all group members regardless of whether they contribute to the provision or maintenance of the good, such as a public park or clean air) if he or she believes that an insufficient number of others will contribute and thus his or her own efforts would be wasted” (Kollock, 1998). One may wonder why he or she should contribute when those who do not (called “free riders”) will nevertheless benefit from the public good. Social dilemmas help to explain why people who think of themselves as altruistic and concerned about others, may nevertheless fail to act in a cooperative manner (Rosen and Haaga, 1998, Stryker, 2001).

As discussed in the prior chapter, even children who view bullying negatively, do not necessarily intervene on behalf of victims (Sutton and Smith, 1999, O'Connell et al., 1999). Perhaps such children feel that such a selfless “contribution” (for the good of the victim and the good of the group since it might prevent future bullying, which is assumed to be a negative state of affairs for most

people in the group) would be fruitless unless a sufficient number of other group members joined their efforts. As the evidence from ethnographic studies suggest, a unilateral contribution might have high costs to the defender because it could leave him or her vulnerable to victimisation.⁹ Additionally, children might have low expectations about others supporting a defender because they might recognise that other children are similarly motivated to act in their own self-interest and thus not likely to join an effort to defend a victim. For example, Tisak and Tisak interviewed early adolescents about vignettes concerning peer aggression. They found that most subjects felt their peers would not intervene when witnessing aggression even though they thought their peers should (Tisak and Tisak, 1996). Additionally, Barchia and Bussey found that in their sample of 1,167 students aged 12-15 years, students' perceptions of their schools' collective efficacy to stop peer aggression at T1, rather than their own efficacy as a defender, predicted defending behaviour, suggesting the importance of collective effort in the defence of victims (Barchia and Bussey, 2011). In the absence of a collective effort, children's assessment of costs and benefits of defending a victim might lead them to avoid associating with victims and even to joining in the bullying to protect themselves or boost their social position.

Understanding Of The Etiology And Sequelae Of Anti-Social Behaviour From A Social Dilemmas Perspective

From a social dilemmas perspective, a certain type of anti-social behaviour—behaviour to protect oneself despite the potential effect of that behaviour on others—results from a rational assessment of the costs and benefits of various behaviour options within a particular social setting. The etiology of such a decision has been illuminated by various studies of behaviour in a social dilemma. However, such research has been criticised for not drawing on a larger theoretical framework to explain when and why people under specific conditions pursue self-interest versus group interest (Levine and Moreland, 1998, Jones, 1998, Pruitt and Kimmel, 1977). No widely accepted, coherent theory currently serves as a foundation for research in this area. Instead, there exists an array of interpretations of social dilemmas from a diversity of disciplines. Thus Smithson and Foddy maintain that the field has been more phenomenon-driven than theory-driven (Smithson and Foddy, 1999).

In 1977, Pruitt and Kimmel developed the goal/expectation theory as a starting point for theory building in this area. The theory states that cooperative behaviour arises in a “strategic environment” (one in which people aim to make rational decisions toward certain ends) where group members share a goal of mutual cooperation and an expectation of cooperation. The goal results from individuals 1) recognising the importance of the others' cooperation to achieving his or her own ends, 2) believing that the others will not act cooperatively on a unilateral basis, and 3) having insight into the fact that one must cooperate to spur others' cooperation (Pruitt and Kimmel, 1977, Pruitt, 1998). This theory is based on the idea that, in

⁹ Although research evidence suggests that children believe unilateral efforts to be dangerous or ineffective, I could not find evidence as to whether children also believe that group efforts are, or would be, effective. My study began exploration of this issue.

many social dilemma situations, people know that non-cooperative choices by all or most members produce undesirable results, but they nevertheless do not cooperate. People may hope for other's cooperation, but they also know that it will not happen if other people are rational in the same way that they are. However, when an individual recognises his or her interdependence with others and thus the importance of mutual cooperation *and* when he or she expects others will reciprocate his or her cooperation and not exploit his or her good will, he or she is more likely to cooperate (Yamagishi, 1986).

Subsequent research has supported the prediction that goals and expectations affect people's choices in a social dilemma situations (Yamagishi, 1986). For example Rutte and Wilke found that the combination of various goals and expectations lead to different behaviour among subjects in an experimental game. When subjects had a cooperative goal and received feedback that all other group members intended to cooperate, they tended to maintain their preference for cooperation. However, if not all of the members intended to cooperate, they tended to prefer to elect a leader to enforce cooperation. By contrast, when subjects without a cooperative goal received feedback that at least one other group member intended to make a non-cooperative choice, they tended to maintain preference for non-cooperation. Finally, subjects without a cooperative goal, who learned that *all* others intended to make a cooperative choice, tended to revise their own choice to cooperation (Rutte and Wilke, 1992). In a similar study, Wilke and Braspenning produced comparable results. Subjects' initial choices reflected their own goals, which they perceived others to share. After making their choices, they received information about other group members' purported choices. If others' choices met expectations, subjects tended not to change their choices. However, when others' choices contradicted expectations, subjects tended to change their choices to match others' cooperation or non-cooperation (Wilke and Braspenning, 1989).

Yamagishi drew on the goal/expectation theory to develop structural goal/expectation theory. According to this theory, people are assumed to engage in structural cooperation (i.e. agree on a structural change to increase cooperation, such as electing a leader to make decisions for the group, or instituting systems to reward cooperation or punish non-cooperation) when they develop the goal of mutual cooperation, realise the effectiveness of structural change, and at the same time realise the difficulty of attaining this goal by simply engaging in elementary cooperation (i.e. cooperating to spur others' cooperation). Yamagishi maintains that it may be difficult to spur others' cooperation with one's own cooperation particularly in large groups where the actions of an individual are less visible and salient than in small groups. Thus, in larger groups, individuals might recognise and be more motivated to institute structural changes to bring about others' cooperation (Yamagishi, 1986).

Factors That Affect Behaviour In Social Dilemmas

A strategic environment, according to Pruitt and Kimmel, is one in which individuals behave rationally to maximise their "individualistic" benefits and attitudes, and norms have relatively little impact on behaviour. Behaviour in such contexts depends primarily on the context and its relationship to individual goals.

Pruitt and Kimmel recognise, and research evidence suggests, that social dilemmas do not always occur in purely strategic environments. Indeed individuals in social dilemma situations appear to be influenced not only by their rational assessment of the context and how best to obtain/maintain resources at the least cost to themselves, but also by other types of goals such as to uphold personal values or adhere to social norms. Yet, Pruitt and Kimmel stress that individualistic, strategic motivations are powerful predictors of behaviour, particularly in laboratory situations (Pruitt and Kimmel, 1977). The following is a review of evidence concerning the relationship of various factors - those related to strategic goals as well as those related to other goals - to how people act in social dilemmas.

The large volume of research on social dilemmas using computer simulations or laboratory experiments have shown that in stable groups, cooperation usually prevails in the long run. These findings reflect Pruitt and Kimmel's prediction that cooperation results from long-term thinking. Over time, group members come to realise that cooperation has greater net benefits for all group members, including themselves (i.e. higher probability of everyone attaining goals). They realise that if one member of a group chooses not to cooperate, it is probable that others will find a way to punish him, and that, if many or all decide not to cooperate, then no-one in the group fares well. In temporary relationships, by contrast, non-cooperation is more likely because chances of retribution for non-cooperation are not as great (Pellegrini, 2002, Johnson and Johnson, 2001, Piliavin, 2001).

Research evidence also suggests that the relative costs of cooperation and non-cooperation in a particular situation affects individuals' behaviour in social dilemmas. For example, subjects in experimental studies are often more willing to cooperate if they think that doing so is crucial for the well-being of the group (and thus to themselves as members of the group) or if they believe other subjects can punish non-cooperation or reward cooperation (i.e. the pay-off for cooperating could be higher than that for not cooperating) (Kollock, 1998, Yamagishi, 1986, Schroeder et al., 1995, Van Lange et al., 1992, Levine and Moreland, 1998, Pruitt, 1998, Van Lange, 2001, Piliavin, 2001).

Another factor that appears to affect cooperation is group size. Cooperation tends to decrease as the number of group members increase, although Stroebe and Frey note that cooperation rarely goes to zero in very large groups (Stroebe and Frey, 1982). Researchers have explained this finding by referring to non-cooperation as a rational response in large groups. For example, there is some evidence that members of large groups may feel that their contribution is not vital, either because they assume that enough others will contribute and thus one can safely free-ride, or because they assume that enough others will *not* contribute for the group to benefit and one's own contribution would be wasted (Komorita and Parks, 1995, Stroebe and Frey, 1982, Pruitt, 1998). Stroebe and Frey also emphasise that cooperation may be more likely in small groups because each member's actions are more apparent to others. Thus those who do not contribute might noticeably violate group norms and receive sanctions for their selfishness (Stroebe and Frey, 1982). Small groups may also engender cooperation due to the perceptions of group members. Subjects in four social dilemma experiments felt they were more likely to obtain a public good when group size was small, even when group size was objectively unrelated to the subjects' impact on the group's chances for obtaining the

public good. The researcher concludes that subjects tend to over-generalise the impact of group size from past experiences (Kerr, 1989).

Macy provides another point of view on social dilemmas and group size. He maintains that larger groups spur more cooperation than do small ones. He uses computer simulations to show that broad networks of people, rather than diffusing responsibility, allow chain reactions that result in a group pulling itself out of a non-cooperation trap. Among a large group of individuals, there is a greater chance of developing a critical mass of cooperators. By contrast, he maintains that small cliques and socially isolated groups find it much more difficult to amass enough cooperators to escape a dilemma (Macy, 1991).¹⁰

Other factors which appear to affect decisions in social dilemmas by altering cost/benefit analyses include: the schedule of reinforcement (when consequences occur), temporal separation of short- and long-term consequences, behavioural constraints (such as whether intra-group communication is permitted), information availability (regarding, for example, how close the group is to being able to secure a public good), and the amount of cooperation needed for the group to benefit (Schroeder et al., 1995, Liebrand et al., 1986).

Costs and benefits are not the only factors relevant to behaviour in social dilemmas. As noted above, evidence suggests that, in addition to maximising self-interest, individuals in social dilemmas are also influenced by their personal values and their desire to be members of a group and to uphold social norms.

Studies have shown that people vary in the degree to which they assign weight to individual outcomes that benefit the self versus collective outcomes that benefit the self *and* others (Komorita and Parks, 1995, Liebrand et al., 1986, Van Lange, 1992, Van Lange et al., 1992, Garvill, 1999). *Pro-socials* (who strive to maximise their own and others' outcomes) are, in general, more likely to cooperate than *individualists* (who strive to maximise their own outcome regardless of others' outcomes) and *competitors* (who strive to maximise their own outcome relative to others' outcomes.) Several studies have looked at conditions that affect these three types of individual orientations and the likelihood of cooperating or failing to cooperate. For example, subjects of all social values are more likely to cooperate with another seen as highly moral than with one seen as low on morality. However, only pro-socials expect higher cooperation from those seen as intelligent. Indeed, individualists and competitors tend to expect cooperation from those seen as unintelligent (Van Lange, 1992).

Klanderman notes another type of value that might affect choices in a social dilemma: the value the individual places on the potential outcome of cooperation.

¹⁰ If social dilemmas tend to foster bullying, Macy's findings as well as those of Adler and Adler suggest a possible explanation for the decrease in bullying when young people move from small elementary and middle schools into larger high schools. Adler and Adler describe middle-childhood social groups as being smaller and more uni-dimensional than those of older adolescents because they are restricted to homeroom classes in which a singular popular crowd can easily dominate over others. High school, by contrast, allows for the types of broad social networks that Macy describes. ADLER, P. A. & ADLER, P. (1996) Preadolescent clique stratification and the hierarchy of identity. *Social Inquiry*, 66, 111-142.

According to value-expectancy theory, the more likely it is that a specific behaviour will produce a specific set of outcomes and the more the individual values these outcomes, the more likely it is that he or she will engage in that behaviour (Klandermans, 1992). For example, one would assume that those who highly value public radio (a public good in the U.S.) will be more likely to contribute to their local station than those who do not.

As the goal/expectation theory would predict, a wide range of studies have shown a strong relationship between expectations of others' behaviour and individual behaviour in a social dilemma (Van Lange et al., 1992, Yamagishi, 1986, Liebrand et al., 1986). Van Lange et al. suggest that, beyond the role of expectations in strategically assessing how to maximise personal benefit, there are other plausible explanations for this relationship, including: 1) people infer social norms from their expectations of others' behaviour (thus norms and related sanctions and rewards, rather than simply expectations, influence behaviour); 2) people respond to expectations due to pressures to conform; 3) people expect others to act as they themselves do and behave accordingly; 4) people may justify their behaviour post-hoc by expressing expectations of cooperation or non-cooperation. Kerr shows a strong relationship between expectations and behaviour, even when normative and conformity pressures are weak, suggesting that the other possible influences - including strategic calculation - are sufficient to understand the association between expectations and behaviour (Van Lange et al., 1992, Kerr, 1989).

In a chapter on norms in social dilemmas, Kerr notes that few studies have aimed to show whether and how norms guide behaviour in social dilemmas. From what evidence exists, he concludes that levels of cooperation in social dilemmas are sometimes affected by general interaction norms concerning commitment (the importance of acting in concert with stated commitments), equity (the importance that benefits are distributed in proportion to individuals' contributions), and reciprocity (the importance that individuals return benefits to others for each benefit one receives oneself). It is important to note that such norms can be either personal norms or social norms. Kerr also stresses that if cooperative behaviour in social dilemmas is partially the result of norms, one would expect that either enhancing the salience of cooperative norms or increasing the possibility or severity of social sanctions for non-cooperation would promote cooperation, and research findings tend to confirm this prediction (Kerr, 1995).

Klandermans, Yamagishi and others have noted that expectations about the behaviour of others often functions as a self-fulfilling prophecy. An individual may not expect others to cooperate because he or she recognises that others are facing the same dilemma that he or she is. As a result, the individual does not cooperate, confirming the expectations of others, and others do not cooperate, confirming the individual's expectations (Klandermans, 1992, Yamagishi, 1986).

Although the vast majority of social dilemma experiments include adult subjects, one can develop predictions about how children might act in such situations, based on other types of research evidence. Kollock, for example, cites several studies of cooperative and competitive orientations among children in different countries that suggest that competitive orientation is learned earlier than cooperative orientations (Rosen and Haaga, 1998, Van Lange et al., 1997, Van

Lange, 2001). Similarly, Pruitt cites evidence that short-range thinking leads to defection and retaliation while long-range thinking, often won through life experience (which children lack), leads to cooperation (Pruitt, 1998, Pruitt and Kimmel, 1977). In his review of childhood social development, Ruble notes that interest in strategic aspects of relationships appears to emerge after early elementary school years (Ruble and Goodnow, 1998). Similarly, Björkqvist et al. notes that around the ages of 11–12, children learn to see situations from others' perspectives and can achieve metacognitions important for strategic action such as: "I know that you know that I know". Björkqvist et al. also stress that children at this age are often involved in intensive small group interactions (Björkqvist et al., 2000). Thus children in middle childhood are beginning to focus more on their peers and their peers' perspectives, the consequences of different types of interactions with peers, and fitting into a peer structure than they did at earlier ages. Further, although children at this age might become caught in social dilemmas, many probably have not developed the cognitive abilities, such as long-range thinking, to solve them on their own.

Research Methods

Social dilemmas research has been criticised for relying on computer simulations and laboratory experiments, in which real or virtual subjects play games that present dilemmas, to test various propositions. Jones, for example, maintains that the substantial body of research in this area has not had a great impact on social psychological understanding because artificial stakes and incentives in simulations and experiments may have significantly different effects than they would in real world settings (Jones, 1998). Pruitt and Kimmel also criticise researchers who do experimental games for not generalising beyond the laboratory and for choosing variables to fit the method rather than those related to real-life situations (Pruitt and Kimmel, 1977).

Axelrod acknowledges that traditional methodologies in this area often leave out many vital features of real-world situations such as verbal communication, third party influences, and uncertainty about other players' actions. However, he argues that, by eliminating such features, one can clarify some of the subtle features of interactions among individuals that might otherwise be lost (Axelrod, 1984). Pruitt and Kimmel enumerate some additional benefits of experimental games. They maintain that such research allows researchers to measure actual behaviour rather than survey reports and to assess such difficult-to-measure variables as "extent of cooperation" or "coalition forming". They also note that these methodologies are usually easy to employ and economical and permit researchers to create and measure conflict "without tears" (Pruitt and Kimmel, 1977). Van Lange et al. add that experimental games allow researchers to manipulate factors that affect cooperation (such as the payoff structure for cooperating or not cooperating with others in the group and characteristics of individuals in the group.) Also, they maintain that games have become more sophisticated over time and better mirror "complex interpersonal and socio-economical problems". Additionally, some researchers have asked participants in experimental games to explain their behaviour following the game. Findings that participants tend to provide explanations consistent with

underlying theoretical differences among the games increases the external validity of game outcomes (Van Lange, 1992).

Social dilemma field studies also are becoming more popular and, by replicating results from laboratory studies, increasing the ecological validity of social dilemma findings (Smithson and Foddy, 1999). For example, Garvill surveyed 1,562 car owners in 5 Swedish mid-size cities to assess the importance of personal factors (such as value orientation) and situational factors characteristic of social dilemmas (such as expectations of others' actions) in predicting willingness to reduce automobile use to protect the environment. He found that expectation of others' actions to be the strongest predictor of subjects' willingness to cooperate (Garvill, 1999).

Approaches To Intervention/Prevention

Research has shown that certain strategies tend to reduce non-cooperation in social dilemma situations. These strategies fall into two groups: 1) those that essentially undo the dilemma and 2) those that motivate individuals to act in the collective interest. Evidence on the effectiveness of both types of strategies is reviewed below.

Solutions that increase the benefit for acting cooperatively or that decrease the benefit for acting selfishly, often called "structural solutions", rid the situation of the dilemma. Structural solutions allow individuals to act in their self-interest and, at the same time, benefit the collective. One type of structural solution is a sanctioning system, which punishes those who do not act in the best interest of the group. Research by Yamagishi has shown that as social dilemmas become more serious (ie. as the risks to the group from members acting selfishly increase), members become more willing to cooperate in providing some type of sanctioning system (Yamagishi, 1988). Another structural approach is to reward those who do cooperate. However, Klandermans notes that, in very large groups, reward systems may be impractical if most people are expected to cooperate, and sanctioning systems may only work if few people do not cooperate (Klandermans, 1992). Samuelson and Messick conducted a series of experiments to assess what conditions prompted subjects to vote for structural solutions which would modify or eliminate the social dilemma incentive structure facing the group by limiting individual choice (i.e. empowering a leader to make decisions or establishing an enforceable rule that all members behave in a certain way). They found that subjects voted for structural solutions when they experienced many group members not acting in the collective interest and when they experienced inequities in individual benefits (Samuelson and Messick, 1995).

The second type of solution to social dilemmas includes those that motivate individuals to act in the collective interest. These solutions sometimes reflect Pruitt and Kimmel's prediction that people will act cooperatively when they understand the importance of coordinated group action to the welfare of everyone in the long run and when they expect others to cooperate. Alternatively, such solutions may reflect individual or group identity, values, or norms.

Brewer and Kramer applied a social identity perspective to social dilemma experiments and found that when subjects' group identity was made salient, they were more willing to cooperate than under the same conditions when group identity was not emphasised (Morrison, 1999). However, it remains unclear if individuals are willing to cooperate with other group members because the group provides them with benefits or resources or because individuals' own sense of identity is tied with that of the group. In the famous Robbers Cave experiment conducted by Sherif and the experiments of Tajfel and Turner, subjects favoured those within arbitrarily constructed groups that had no common goals nor history of animosity towards other groups suggesting, at least in the conditions of the study, that individuals adopt a group identity (Sherif et al., 1961a).

Additionally many studies, most of them conducted in laboratory settings, have shown that communication can prompt cooperation under social dilemma conditions. Research has produced evidence that communication helps to create the expectation of cooperation from others by improving group members' abilities to predict each others' actions and by allowing them to make promises about their own future actions, to make moral appeals to one another, or to foster a feeling of group identity and mutual trust (Orbell et al., 1988, Yamagishi, 1986, Bravers, 1995, Van Lange et al., 1992, O'Connor and Tindall, 1990, Kollock, 1998, Komorita and Parks, 1995, Van Lange, 2001, Pruitt, 1998, Pruitt and Kimmel, 1977, Dawes et al., 1977).

Summary

Social dilemmas are "situations in which each decision-maker is best off acting in his own self-interest, regardless of what the other persons do. Each self-interested decision, however, creates a negative outcome or cost for the other people who are involved. When a large number of people make the self-interested choice, the costs or negative outcomes accumulate, creating a situation in which everybody would have benefitted had they decided not to act in their own private interest" (Van Lange et al., 1992, Dawes et al., 1977). As discussed in the prior chapter, even children who view bullying negatively do not necessarily intervene on behalf of victims. Perhaps such children are caught in social dilemmas and feel that defending a victim would be at best futile and at worst dangerous unless a sufficient number of other group members joined their efforts.

In 1977, Pruitt and Kimmel developed the goal/expectation theory as a starting point for theory building in this area. The theory states that cooperative behaviour arises in a "strategic environment" (one in which people aim to make rational decisions toward certain ends) when group members share a goal of mutual cooperation and an expectation of cooperation. The goal results from individuals 1) recognising the importance of the others' cooperation to achieving his/her own ends, 2) believing that the others will not act cooperatively on a unilateral basis, and 3) having insight into the fact that one must cooperate to spur others' cooperation (Pruitt and Kimmel, 1977, Pruitt, 1998).

Pruitt and Kimmel recognise, and research evidence suggests, that social dilemmas do not always occur in purely strategic environments. Indeed individuals

in social dilemma situations appear to be influenced not only by their rational assessment of the context and how best to obtain/maintain resources at the least cost to themselves, but also by other types of goals such as to uphold personal values or adhere to social norms. Yet, Pruitt and Kimmel stress that individualistic, strategic motivations are powerful predictors of behaviour, particularly in laboratory situations (Pruitt and Kimmel, 1977).

Social dilemmas research has been criticised for relying on computer simulations and laboratory experiments, in which real or virtual subjects play games that present dilemmas, to test various propositions. However, social dilemma field studies also are becoming more popular and, by replicating results from laboratory studies, increasing the ecological validity of earlier social dilemma findings.

Research has shown that certain strategies tend to reduce non-cooperation in social dilemma situations. These strategies fall into two groups: 1) those that essentially undo the dilemma by, for example, imposing costs for non-cooperation or benefits for cooperation and 2) those that motivate individuals to act in the collective interest by, for example, increasing communication and trust among group members.

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This literature review began with an overview of the risk and protective factor perspective on anti-social behaviour, a perspective that has dominated research and practice in this area in recent years. This perspective often gives limited or no consideration to the impact of immediate situations. Chapter Six highlighted research on one situational factor, the dynamics of social groups, and their impact on behaviour. The focus then narrowed to behaviour in bullying situations, the type of anti-social behaviour that is the specific focus of the empirical study at the core of this thesis. This chapter, which reviewed various risk factors for bullying and victimisation (mostly associated with individuals rather than social contexts) ended with a discussion of how a particular aspect of social groups, social hierarchies, affect the behaviour of young people in bullying situations.

Evidence from research on social hierarchies suggests that children, even those who usually behave pro-socially, sometimes behave anti-socially (by bullying, supporting a bully, or refraining from helping a victim) for rational reasons. The final chapter in this section examines these reasons in light of the concept of social dilemmas.

The empirical study described in the following chapters aims to understand if the concept of social dilemmas helps to explain behaviour of children in bullying situations. As noted in the preceding discussion, non-strategic factors, such as attitudes and norms, can also affect behaviour even under the conditions of a social dilemma. Thus the present study controlled for the influence of children's individual attitudes toward bullying and group norms related to bullying. Implications of the study findings are discussed in the final chapters and draw on research evidence on how to spur cooperation under social dilemmas conditions.

Part Three: Study On The Relation Of Social Dilemmas To Behaviour In Bullying Situations

The study on the relation of social dilemmas to behaviour in bullying situations provides a test of one of the four basic ideas introduced at the outset of the thesis: immediate group context can have a significant effect on behaviour. The study looked at two aspects of group context—social norms and social dilemmas—and their relation to various behaviours in bullying situations. As discussed, this idea, along with the other propositions about neglect and importance of understanding the anti-social behaviour of “good” people, provide the broad context for the study. Although the study did not directly test these other ideas (i.e. it did not assess the typical behaviour of subjects), it can be presumed that most subjects typically behave pro-socially and that evidence that many of them behaved anti-socially in bullying situations (according to their own reports) provides some support for these propositions.

Chapter Nine briefly introduces the empirical study, which partially replicated an earlier Finnish study on the relation of attitudes and group norms to behaviour in bullying situations. The present study added a third independent variable not yet explored in the bullying literature: social dilemmas. Chapter Ten presents the methodology of the study of middle school students at a residential school in the U.S. Chapter Eleven reviews the results of the analyses, which suggest that social dilemma dynamics may be an important group factor in predicting behaviour in bullying situations. Chapter Twelve reviews findings from the present study, compares them to findings from the Finnish study, and proposes interpretations of the findings, drawing on evidence from relevant literature. This chapter concludes with a discussion of the limitations of the study and its contributions to knowledge, specifically, how the study provides evidence in support to the four basic ideas presented at the outset of the thesis and how the proposed models for pro-social and, in particular, anti-social behaviour, might be refined in light of the study findings.

Chapter Nine: Introduction To The Study

Replication Of Prior Study

In a cross-sectional study of 1,220 Finnish elementary school children, Salmivalli and Voeten examined the connections between individual attitudes, group norms, and students' behaviour in bullying situations including: bullying others, assisting the bully, reinforcing the bully, defending the victim, or staying outside the bullying situation. Employing multi-level modelling, they found that attitudes predicted individual behaviour in most cases. They also found that group norms were associated with behaviour, especially in the upper grades (Salmivalli and Voeten, 2004).

Because this study found behaviour in bullying situations to be predicted not only by individual attributes (attitudes) but also group characteristics (norms), it provided an appropriate model for the current study, which is also concerned with individual and group characteristics related to behaviour in bullying situations. Additionally, Salmivalli and Voeten found fairly small reductions in variance at both the individual and group levels when adding attitudes and norms variables to their models, suggesting that other factors, not included in their study, are important to predicting behaviour in bullying situations. The current study focused on whether social dilemmas help to further explain the variance in behaviour in bullying situations.

Goal

The goal of the study was to examine the contributions of attitudes, group norms, and social dilemmas to students' behaviour in bullying situations. Attitudes and group norms were operationalised in the same way as in the Salmivalli and Voeten study. Attitudes were operationalised as to the students' moral beliefs regarding the appropriateness or inappropriateness of bullying and related behaviours. Group norms were operationalised as students' expectations about the social consequences of pro- and anti-bullying behaviour in their student homes. Social dilemmas was operationalised as students' reporting of all three conditions of a social dilemma:

1. Unilateral pro-social action is perceived as being ineffective (and/or possibly dangerous).
2. Group pro-social action is perceived as more effective (and/or possibly safe) than unilateral action.
3. Other group members are perceived as unlikely to act pro-socially.

Hypotheses

1. Both individual and group factors are associated with behaviour in bullying situations.
2. Attitudes, group norms, and social dilemmas each have a unique contribution to predicting student behaviour in bullying situations.

Specifically, pro-bullying attitudes, pro-bullying norms, and the presence of social dilemma conditions were each expected to be related to pro-bullying behaviour. Conversely, anti-bullying attitudes, anti-bullying norms, and the absence of social dilemma conditions, were each expected to be related to defending behaviour.

The relationship between the independent variables and outsider behaviour (i.e. tendency not to involve oneself in bullying in any way) was predicted to be somewhat more complex. While it was expected that anti-bullying attitudes and anti-bullying norms would be associated with withdrawing from bullying situations, because such students would be less likely to want to actively bully others, it was also expected that the presence of social dilemma conditions would predict withdrawing behaviour because such students, despite their dislike of bullying, would not see defending as an effective or safe approach.

Predictions regarding the type of variance each independent variable would explain—individual or group variance—were also set forth. It was predicted attitudes would be associated with differences among individuals and among groups, the latter because those within the same group are likely to be more similar to each other in attitudes than students in different groups. It was predicted that group norms would be associated with differences between groups. Finally it was predicted that social dilemmas would be associated with differences among individuals and groups. Specifically, at the individual level, it was expected that those students who reported all three conditions of a social dilemma would conclude that the best course of action in a bullying situation would be either to withdraw or join in the bullying rather than to defend the victim. Further, it was expected that students' low expectations about their peers' pro-social behaviour would be affected by the number of group members who also reported all three social dilemma conditions. Thus group averages on the social dilemma variable were also expected to predict behaviour in bullying situations. Specifically, individuals in groups with higher social dilemma scores would be more likely to engage in pro-bullying or withdrawing behaviour than those in groups with lower scores on this variable.

Interactions among the specified independent variables with grade and gender also were explored, although no hypotheses about these interactions were set forth. The relationship between social dilemma conditions in regards to specific types of bullying (physical, verbal, and relational) and student behaviour in bullying situations was also explored.

Summary

In a cross-sectional study of 1,220 Finnish elementary school children, Salmivalli and Voeten examined the connections between individual attitudes, group norms, and students' behaviour in bullying situations. Because this study found behaviour in bullying situations to be predicted not only by individual attributes (attitudes) but also group characteristics (norms), it provided an appropriate model for the current study, which was also concerned with individual and group characteristics related to behaviour in bullying situations. The goal of this study was to examine the contributions of attitudes, group norms, and social dilemmas to students' behaviour in bullying situations, and two hypotheses were tested:

- Both individual and group factors are associated with behaviour in bullying situations.
- Attitudes, group norms, and social dilemmas each have a unique contribution to predicting student behaviour in bullying situations.

Chapter Ten: Methodology

This chapter describes the types of subjects who participated in the study, the design of the study, the instruments used to assess the variables of interest, and the procedures employed to collect data.

Participants

Participants were middle school (sixth, seventh, and eighth grade students, aged 11 to 14 years) at a private residential school in the U.S., which serves children, ages four-18, in low-income families (up to 150 per cent of the federal poverty line) from throughout the U.S. This school was chosen for the study because the author was involved in a series of studies with the school, and the school expressed interest in learning more about bullying among its students. The author hopes to secure funding to replicate the study in schools more representative of American students in general (i.e. public schools serving students from a range of socio-economic backgrounds.) Middle school students were chosen for the sample because past research has shown bullying to be particularly prevalent between the ages of approximately 10 and 14 and because, during pilot tests, the instrument proved to be difficult for several fourth and fifth grade students (aged nine-11 years) to complete (Pellegrini and Long, 2002, Smith and Madsen, 1999, Nansel et al., 2001). Thus, rather than simplify the instruments for younger students and lose important detail in the data, the decision was made to focus exclusively on the middle school students.

Parents/guardians of all students in the designated grades ($n = 389$) were contacted by mail to inform them of the study, explain their children's rights as participants, and to ask if they would like their child to participate by completing a questionnaire. Parents/guardians were given a toll-free telephone number to call to communicate their consent or refusal. Parents/guardians who did not call were contacted by phone by research team members. The transience of this low-income population often made it difficult to reach parents/guardians. Callers made 10-20 attempts to reach a parents/guardian before discontinuing efforts. Consent was received from 308 (or 79 per cent) of the parents/guardians and refusal from five per cent. The callers were not able to reach the remaining 16 per cent, despite repeated phone calls and efforts to locate more recent contact information. All students whose parents/guardians gave consent for them to participate were invited to participate. They received the same information about the study that their parents/guardians received, using more basic vocabulary. Two hundred ninety-two students living in 37 student homes (or 95% of the students who had parental consent) agreed to complete the questionnaire. Chi-square tests were used to compare available demographic information (i.e. the gender, grade, and home state) of participants in the study to those who did not participate and no significant differences were found. The informed consent process was approved by the Institutional Review Board of the University of Chicago, which has responsibility to protect the rights of human subjects. Please see Table Three for grade and gender composition of the sample.

Table Three: Grade And Gender Composition Of The Sample

			Grade			Total
			6	7	8	
Gender	Female	Count	38	47	56	141
		% within Grade	44.7%	46.5%	52.8%	48.3%
	Male	Count	47	54	50	151
		% within Grade	55.3%	53.5%	47.2%	51.7%
Total		Count	85	101	106	292
		% within Grade	100.0%	100.0%	100.0%	100.0%

Design

To test whether social dilemmas help to explain behaviour in bullying situations, the present study replicated Salmivalli's and Voeten's study as well as adding an independent social dilemma variable at the group level. Additionally, rather than using classrooms as groups, the present study used student homes due to the school's concern about bullying within the homes. At the school, middle school students live with other middle school students of the same gender in groups of 10-12. Each student home is run by two house parents. The school has 37 middle school student homes.

Assessment

Minor edits were made to the original items used in the Finnish study to make them more understandable to students at the participating school. Edits were based on feedback during pilot testing of the instrument with 15 students at the school, in grades four to eight. Pilot testing occurred in two phases. In phase one, the researcher met with five students individually, one from each grade. The researcher explained that the student was being asked to complete a survey to help the researchers make it a better survey, and that he or she should tell the researcher if there were any words or directions that he or she did not understand. After each session, the researcher then asked the student to paraphrase several words and phrases from the survey to assess his or her understanding. Edits were made to the instruments following phase one. In phase two, the revised survey was administered to 10 students, two from each grade, in a group setting that simulated the setting planned for the study. Students were asked to complete the survey and to notify the researcher if there were any words or directions that they did not understand. Only fourth and fifth grade students had problems completing the questionnaire. The sample was therefore limited to middle school students and no further edits were required after phase two.

Below is a review of the instruments employed in the study.

Behaviour In Bullying Situations

The Participant Role Questionnaire (PRQ), developed by Salmivalli and colleagues, was used in the present study to assess the dependent variable: student behaviour in bullying situations. The PRQ first specifies bullying as when "one child is repeatedly exposed to harassment and attacks from one or several other children. Harassment and attacks may be, for example, shoving or hitting the other one, calling him/her names or making jokes about him/her, leaving him/her outside the group, taking his or her things, or any other behaviour meant to hurt another".

The students were presented with 15 items describing different ways to behave in such situations, and they were asked to evaluate, on a three-point scale (0 = never or 0 times, 1 = sometimes or 1-5 times, 2 = often or more than 5 times) how often each of their housemates behaved in the ways described since the school year began in the fall. (The survey was conducted in the spring of the year.) The first names of all housemates appeared on the questionnaire. The students thus evaluated the behaviour of housemates as well as themselves.

The version of the PRQ employed had 15 items. The items form five scales reflecting different participant roles associated with bullying. In the 15-item version, there were three items for each scale:

- The bully scale: Starts bullying; makes others join in the bullying; always finds new ways of bothering kids.
- The assistant scale: Joins in the bullying, when someone else has started it; assists the bully; helps the bully, maybe by catching the kid being bullied.
- The reinforcer scale: Comes out to watch the bullying; laughs; encourages the bully by shouting or saying things.
- The defender scale: Comforts the kid being bullied or encourages him/her to tell the houseparent about the bullying; tells others to stop bullying; tries to make the others stop bullying.
- The outsider scale: Is not around during bullying situations; stays outside bullying situations; doesn't take sides with anyone.

To produce PRQ scores, for each student the sum of responses from students in his or her home was calculated and then divided by the number of students who responded to that item to produce a mean for each item. Then the means for each item in a scale were added and divided by the number of items in the scale (3) to produce a continuous score of 0.00 to 2.00 for each student for each scale. If half or more subjects in the student home skipped an item, then there was not a valid score for that item or for the related scale for the student to whom the item referred.¹¹

¹¹ Salmivalli and Voeten treated missing data slightly differently. Subjects in their study were told to leave an item blank if the student never behaved in the indicated way. Thus it was impossible to distinguish "never" responses from missing data. In the current study, students were instructed to

The PRQ has demonstrated adequate reliability and validity in past studies. In the Finnish study, which the present study replicated, the internal consistencies of the scales were satisfactory: Cronbach's alpha coefficients were .93 for the bully scale, .95 for the assistant scale, .90 for the reinforcer scale, .89 for the defender scale and .88 for the outsider scale (Salmivalli and Voeten, 2004). The PRQ has also yielded valid data. Salmivalli et al. found, with a sample of 573 children, that scores on the five subscales correlated significantly with self-ratings of the same scales (r s ranging from .32 to .51, average $r=.45$) (Salmivalli et al., 1996). In another study, children identified as bullies on the basis of their PRQ bully scores, scored high on teacher-reported aggression as well (Salmivalli and Nieminen, 2002). Although scores on the bully, assistant and reinforcer scales tend to be highly correlated, according to the authors, they seem to represent three distinct factors, rather than one underlying construct (Salmivalli and Voeten, 2004).

A factor analysis using data from the present study, employing the maximum likelihood extraction method and varimax rotation, resulted in three factors that explained 79 per cent of the total variance¹². The item loadings on the first factor varied between .07 and .91. Items that loaded heavily on this factor included all items that reflected pro-bullying behaviour (including those in the bully, assistant, and reinforcer scales.) The item loadings on the second factor varied between .08 and .85. Items that loaded heavily on this factor included all items related to defending victims. Item loadings on the third factor varied between .002 and .59. Items that loaded heavily on the third factor included those related to outsider behaviour. Other studies using PRQ or an adapted 21-item version by Sutton and Smith (for younger children) also found that the bully/reinforcer/assistant roles may be measuring the same underlying construct (Goldbaum et al., 2003, Tani et al., 2003, Sutton and Smith, 1999). Thus the present study considers both the separate roles of bullying, assistant, and reinforcer as well as a composite “pro-bullying role”. Cronbach's alpha coefficients based on data in the present study were .93 for the bully scale, .95 for the assistant scale, .93 for the reinforcer scale, .90 for the defender scale and .55 for the outsider scale. Although items related to outsider behaviour loaded most heavily on the third factor, these items also loaded moderately heavily on the second factor related to defender behaviour. It appears that a fair number of students who display defending behaviours, according to their housemates, also display outsider behaviours. However, the two roles were dealt with separately in the analyses due to the results of the factor analysis and the conceptual difference between the two roles.

choose “0” if the student never behaved in the indicated way. Both methods may have had increased error variance. The Finnish study may have incorrectly treated some blanks as “never” responses rather than as missing data. The present study may have increased error variance due to the reduced number of evaluators on certain items.

¹² Maximum likelihood extraction allows computation of assorted indices of goodness-of-fit and the testing of the significance of loadings and correlations between factors. A varimax rotation is a change of coordinates used in principal component analysis and factor analysis that seeks a basis that most economically represents each individual. Varimax rotation is often used in surveys to see how groupings of questions (items) measure the same concept.

Attitudes Towards Bullying

Attitudes towards bullying were operationalised as students' moral beliefs regarding the appropriateness or inappropriateness of bullying and related behaviours. Students' attitudes towards bullying were measured by asking them to evaluate, on a five-point scale, (0 = strongly disagree, 4=strongly agree), the extent to which they agreed or disagreed with the following ten statements about bullying (Item with astericks were reversed coded): A kid should try to help another kid being bullied. Bullying may be fun sometimes*. If a kid is being bullied, it is his or her own fault*. Bullying is stupid. Joining in bullying is a wrong thing to do. It is not that bad if you laugh with others when someone is being bullied*. Kids should report bullying to the house parent. Making friends with a kid who is being bullied is a good thing to do. Sometimes it is funny when someone teases another kid over and over again*. Bullying makes the kid being bullied feel bad.

Averaging the students' scores on the items formed an attitude scale. The higher a student scored on the scale, the more his or her attitudes were against bullying. In the present study, in a maximum likelihood factor analysis using varimax rotation and specifying one factor, a single attitude factor accounted for 30 per cent of the total variance. The item loadings on this factor varied between .28 and .67, and the reliability, as measured by the coefficient alpha, was .73. In the Finnish study, in a maximum likelihood factor analysis, a single attitude factor accounted for 25 per cent of the total variance. The item loadings on this factor varied between .38 and .64, and the reliability, as measured by the coefficient alpha, was .75 (Salmivalli and Voeten, 2004).

Group Norms

The development of the questionnaire designed to assess bullying-related classroom norms in the Finnish study was guided by the standard definition of norms as *expected standards of behaviour in a certain group* (Franzoi, 1996). It is implied in the concept of norms that behaving in accordance with group norms leads to approval by other group members, whereas breaking the norms leads to disapproval. Accordingly, the norms questionnaire included questions about behaviours that would be prescribed (expected) or proscribed (not appropriate) in the class. The present study also used this instrument.

Students were instructed to complete the norms questionnaire as follows: "Imagine that a student in your student home did some things described below. How would others react"? It was emphasised to students that they should not respond according to how they think others *should* respond, but according to what they thought kids would actually think about certain behaviours.

Five situations were presented to students: A housemate 1) making friends with a child being bullied; 2) laughing with others, when someone is being bullied; 3) telling the house parent about the bullying; 4) joining in the bullying; and 5)

entertaining others by making fun of a housemate over and over again. In the Finnish study, students were asked to evaluate the consequences of each act by choosing from eight optional answers. One of the options was "nothing special would happen", scored as "0". Three of the options ("the others would think he or she is a nice person"; "the others would show approval to him/her"; "the others would admire him/her") were scored as positive consequence (score "1"), whereas the other three ("the others would start avoiding him/her"; "the others would think he or she is stupid"; "the others would show disapproval to him/her") were scored as negative consequence (score "2"). Students choosing the last option, "something else would happen", gave an open answer, which was scored as either a positive or a negative consequence.

Salmivalli recommended that the present study modify the norms measure by asking students to evaluate the probability of several positive *and* negative consequences using a Likert scale. Simplifying the instrument in this way facilitated analysis. Because the scores assigned to student answers to the norms questionnaire in the original study were qualitatively different categories, rather than points on a scale, the optimal scaling procedure HOMALS was applied. By using Likert scales, this complicated procedure was avoided. Thus for each of the five situations listed above, subjects assessed the likelihood of the following consequences on a four-point scale (One=Very Unlikely, Four = Very Likely):

- Other kids in my student home would avoid him/her
- He/she would be considered cool
- Other kids in my home would think that he/she is stupid
- Other kids in my student home would approve of him/her (in other words: admire him/her)
- Other kids in my student home would disapprove of him/her (in other words: NOT admire him/her)
- He/she would be praised
- Nothing in particular would take place (in other words: others would not react to it)

Reverse scoring was applied to items so that higher scores corresponded to perception of more anti-bullying norms. In a maximum likelihood factor analysis using varimax rotation, two factors accounted for 36 per cent of the total variance. The item loadings on these factors varied between .01 and .72 for the first factor and .01 and .76 for the second factor. Items loading on the first factor included those that described consequences consistent with anti-bullying norms and those that loaded on the second factor included those that described consequences consistent with pro-bullying norms. Items which indicated that "nothing in particular would take place" did not consistently load on either factor. Because pro-bullying is the opposite of anti-bullying, it was deemed appropriate to include items related to these two factors in one score that reflects the degree to which each subject perceives his or her student home to have anti-bullying norms. Higher scores reflect perception of stronger anti-bullying norms. A neutral norms score was computed based on the sum of the last item for each condition (i.e. "nothing in particular would take place")

which reflects the degree to which each student perceives his or her student home to have a neutral norm regarding bullying. The reliability of the anti-bullying norm, as measured by the coefficient alpha, was .90. The alpha for the neutral norm was .69.

Social Dilemmas

As noted, the present study added an independent variable to the analyses: the extent to which student home groups appear to be caught in social dilemmas. A social dilemmas instrument was developed drawing on Pruitt and Kimmel's goal/expectation theory. The theory states that cooperative behaviour arises in a "strategic environment" (one in which people aim to make rational decisions toward certain ends) when group members share a goal of mutual cooperation and an expectation of cooperation. More specifically, individuals 1) recognise the importance of the others' cooperation to achieving his or her own ends; 2) believe that the others will not act cooperatively on a unilateral basis; and 3) have insight into the fact that one must cooperate to spur others' cooperation (Pruitt and Kimmel, 1977, Pruitt, 1998). This theory is based on the idea that, in many social dilemma situations, people know that non-cooperative choices by all or most members produce undesirable results, but they nevertheless do not cooperate. People may hope for others' cooperation, but they also know that it will not happen if other people are rational in the same way that they are. However, when an individual recognises his or her interdependence with others and thus the importance of mutual cooperation *and* when he or she expects others will reciprocate his or her cooperation and not exploit his or her goodwill, he or she is more likely to cooperate (Yamagishi, 1986).

Thus, the social dilemma variable was operationalised as the degree to which group members agreed that: 1) unilateral action to defend victims would be dangerous or ineffective; 2) group efforts could be more effective; and 3) cooperation from others in an effort to defend a victim was unlikely. Thus any individual's best short-term strategy was to act selfishly (i.e. not defend a victim) even though the best long-term strategy to reduce bullying in the group was to act collectively (to defend the victim). A wide range of factors can influence expectations of others' behaviour, including social norms. Thus it was expected that items that measured expectations in the social dilemmas instrument to be somewhat correlated with social norm scores.

The instrument assessed social dilemmas within the context of three different types of bullying: physical, verbal, and indirect (specifically gossiping about a child.) Eight questions were asked about each type of bullying. Students were asked to indicate their level of agreement (strongly agree, agree, disagree, or strongly disagree) with each item. The items for the verbal bullying scale were:

- I could get other kids to stop teasing someone with other students helping me.
- I could get other kids to stop teasing someone by myself.
- I think other kids in my home would help someone who is being teased.

- I think most kids in my home are not likely to help a kid who is being teased if they have to help him or her by themselves.
- If I tried, by myself, to help a kid who was being teased, other kids would be mean to me.
- If I tried, along with some other kids, to help a kid who was being teased, other kids would be mean to me.
- I think most kids in my home would be more than willing to help a kid who is being teased if other kids help out too.
- I think there are some kids in my home who would not like to see a kid being teased, but would not help him or her by themselves.

Experts on bullying and anti-social behaviour reviewed the instrument to assess face validity.

As noted above, three conditions of a social dilemma are:

- A. Unilateral action is seen as ineffective or dangerous
- B. Group efforts are seen as more effective or safe than unilateral ones
- C. Expectations regarding others' action/cooperation is low

The number of conditions that were met by each subject was calculated, based on his or her responses. Questionnaire items related to each of these conditions are reviewed in Appendix A. Factor analysis was deemed inappropriate because items were intended to be used to categorise students according to whether their responses reflected the conditions of a social dilemma. Subjects' response patterns were not expected to consistently reflect social dilemma conditions or the absence of them. However, to assess whether subjects were responding to items in a consistent manner, reverse coding was applied to some items such that higher scores on each item reflected a more anti-bullying environment (i.e. subjects report that they generally feel that they can reduce bullying, either with others or by themselves and expect that others will take action to reduce bullying.) The reliability of the six items related to social dilemma conditions was then assessed for each type of bullying. The alpha for verbal bullying (teasing) was .64, for physical bullying (beating up or pushing around) was .71, and for relational bullying (gossiping) was .67. The reliability of all 18 items, assessed together, was .87.

Procedures

The data was collected in the computer laboratory at the middle school building at the residential school. The author monitored all data collection sessions. The computer laboratory is a large room with computers stationed around the perimeter such that all students are facing a wall when stationed at a computer. Students were spaced apart from each other such that it was impossible for them to clearly see the screen of the students on either side of them without moving out of their seats. "White noise" was played during data collection sessions to mask the voice of the author answering individual students' questions.

Students completed on-line questionnaires created through and hosted by SurveyMonkey.com. SurveyMonkey.com has a privacy policy that states that it will not use data for its own purposes. The data collected is kept private and confidential. SurveyMonkey takes a number of steps to secure their infrastructure.¹³

Only students for whom parental consent was obtained were invited to participate in the study. Upon entering the on-line survey, students first saw an on-line form which explained, using age-appropriate vocabulary, the purpose of the study, how it would be conducted, risks to participation, how information would be used, and who would have access to the information they provided. Students were also told that all other middle school students at the school, who had parental consent, were being invited to participate. Students were then asked to indicate whether they would like to complete the questionnaire by clicking on “Yes”, “No”, or “Maybe, I have some questions”. If they clicked “Yes”, they were lead through the on-line questionnaire. A subject could not access the questionnaire without clicking on “Yes”. If they clicked “No” they received a message asking if they were sure about their decision and that the researcher administering the questionnaire would be happy to answer any questions he or she may have. This message also included instructions on how to return to the previous screen if they would like to change their answer to “Yes”. Additionally, the message indicated that if they were sure of their decision, that they may use the remainder of the session to work on an alternative computer-based activity provided by the school. If they clicked on “Maybe”, they received a message directing them to raise their hand, and the researcher monitoring the session would come to speak with them.

Those students who chose to complete the questionnaire were led through the four instruments in the following order: attitudes measure, PRQ, social dilemmas measure, and norms measure. Because the PRQ, social dilemmas, and norms measures included repetition of items for different situations, these items were randomly re-ordered for each situation to prevent students from answering questions by rote.

Summary

Participants were 292 middle school (sixth, seventh, and eighth grade, aged 11 to 14 years) students at a private residential school in the U.S., which serves

¹³ To maintain physical security, SurveyMonkey ensures that: servers are kept in a locked cage; entry requires a passcard and biometric recognition; digital surveillance equipment is used; temperature, humidity and smoke/fire detection are controlled, room is staffed at all times. To maintain network security, SurveyMonkey ensures: multiple independent connections to Tier One Internet access providers; fully redundant OC-48 SONET Rings; uptime monitored every five minutes, with escalation to SurveyMonkey staff; and firewall restricts access to all ports except 80 (http) and 443 (https). To maintain hardware security, SurveyMonkey ensures: servers have redundant internal power supplies; data is on RAID 10, operating system on RAID 1; and servers are mirrored and can failover in less than one hour. To maintain software security, SurveyMonkey ensures: code in ASP, running on SQL Server 2000 and Windows 2000 Server; latest patches applied to all operating system and application files; SSL encryption of all billing data; data backed up every hour internally; and data backed up every night to centralised back-up system, with offsite back-ups in event of catastrophe.

children, ages four to 18, in low-income families (up to 150% of the federal poverty line) from throughout the U.S. To test whether social dilemmas help to explain behaviour in bullying situations, the present study replicated Salmivalli's and Voeten's study as well as adding a social dilemma independent variable at the group level. Additionally, rather than using classrooms as groups, the present study used student homes due to the school's concern about bullying within the homes. At the school, middle school students live with other middle school students of the same gender in groups of 10-12. Each student home is run by two house parents. The school has 37 middle school student homes.

The Participant Role Questionnaire (PRQ), developed by Salmivalli and colleagues, was used in the present study to assess the dependent variable: student behaviour in bullying situations. An individual's PRQ score was based on the average reports of students in his/her student home. Additionally, instruments developed for the Finnish study were used to assess the independent variables: attitudes and norms. The attitude measure was based on self-report, and the norms measure was based on the average scores of students within the same student home. A measure for the third independent variable, social dilemmas, was developed drawing on Pruitt and Kimmel's goal/expectation theory. The social dilemma variable was operationalised as the degree to which group members agreed that: 1) unilateral action to defend victims would be dangerous or ineffective; 2) group efforts could be more effective; and 3) cooperation from others in an effort to defend a victim was unlikely. Thus any individual's best short-term strategy was to act selfishly (i.e. not defend a victim) even though the best long-term strategy to reduce bullying in the group was to act collectively (to defend the victim).

Chapter Eleven: Results

This chapter includes two sub-sections: 1) descriptive statistics for behaviour, attitudes, groups norms, and social dilemmas by grade level and gender; and 2) results from multilevel modelling on the relationship between behaviour and the main predictors of interest (attitudes, group norms, social dilemmas) as well as grade and gender.

Descriptive Statistics

Table Four presents the means and standard deviations of boys and girls in the three grade levels for each of the variables: behaviour, attitude, group norms, and social dilemmas. The means and standard deviations for the anti-bullying and neutral norms are student home averages and are not categorised by grade because each student home includes students in all three grades.

Reinforcing bullies, defending victims, or withdrawing from bullying situations were more common behaviours than bullying and assisting a bully. Three behaviour variables appear to show age-related differences. Assisting the bully seemed to decrease with age for girls in the sample. Also, there was an increasing trend, from sixth to eighth grade, in both defending victims and withdrawing in bullying situations for both boys and girls. Bullying, assisting, reinforcing, and withdrawing were more prevalent among boys than girls, while defending was more prevalent among girls.

With respect to attitudes, girls' anti-bullying attitudes appeared to decrease with age. Boys and girls did not appear to differ in terms of the strength of their anti-bullying attitudes. Additionally, boys and girls homes were similar in terms of the strength of anti-bullying and neutral norms.

The number of students who reported all three conditions for social dilemmas with regard to verbal bullying seemed to decrease with age for boys and increase with age for girls. The number of girls reporting social dilemma conditions related to relational bullying also increased with age. Additionally the number of girls reporting social dilemma conditions related to physical bullying decreased with age.

Table Four: Score Means (And Standard Deviations) Of Boys And Girls From Different Grade Levels

	Gender	Grade 6	Grade 7	Grade 8
<i>Behaviours¹⁴</i>				
Bullying	Boys	.59 (.35)	.70 (.38)	.65 (.36)
	Girls	.54 (.40)	.56 (.36)	.48 (.34)
Assisting the bully	Boys	.66 (.36)	.74 (.37)	.71 (.35)
	Girls	.64 (.42)	.62 (.39)	.58 (.32)
Reinforcing the bully	Boys	.86 (.35)	.92 (.35)	.88 (.35)
	Girls	.87 (.41)	.81 (.36)	.80 (.37)
Defending the victim	Boys	.79 (.29)	.84 (.31)	.96 (.33)
	Girls	.83 (.26)	.86 (.29)	.94 (.31)
Withdrawing	Boys	.92 (.20)	.93 (.18)	.96 (.18)
	Girls	.88 (.19)	.87 (.18)	.91 (.13)
<i>Attitudes¹⁵</i>				
	Boys	3.17 (.55)	2.75 (.53)	2.78 (.60)
	Girls	3.02 (.64)	2.95 (.51)	2.80 (.54)
<i>Group Norms¹⁶</i>				
Anti-Bullying Norms	Boys Homes	69.35 (11.45)		
	Girls Homes	69.45 (14.24)		
Neutral Norms	Boys Homes	12.88 (3.08)		
	Girls Homes	12.77 (2.84)		
<i>Social Dilemmas¹⁷</i>				
Verbal Bullying: Meets Conditions A, B, C	Boys	.19 (.39)	.18 (.39)	.10 (.31)
	Girls	.15 (.36)	.17 (.38)	.23 (.42)
Physical Bullying: Meets	Boys	.10 (.30)	.14 (.35)	.10 (.31)

¹⁴ Possible scale range 0.00-2.00; scores based on peer-report. Higher scores correspond to greater frequency of given behaviour. It was determined that if half or more subjects in the student home skipped an item, then there would not be a valid score for that item or for the related scale for the student to whom the item referred. Because all of the subjects had more than half of their housemates reporting on all items, there was no missing data for the behaviour variables.

¹⁵ Possible scale range 0.00-4.00; scores based on self-report. Scale means were imputed for missing data for 23 subjects. Higher scores correspond to more anti-bullying attitudes.

¹⁶ Possible scale range 30.00-120.00 for anti-bullying scale and 5.00 to 20.00 for neutral scale. Higher scores reflect perception of stronger anti-bullying norms or neutral norms. Scores are based on self-report and aggregated by student home. On the anti-bullying scale, scale means were imputed for missing data for 65 subjects and sample means were imputed for four subjects who did not respond to any of the items in the scale. On the neutral scale, scale means were imputed for missing data for 32 subjects and sample means were imputed for 5 subjects who did not respond to any of the items in the scale.

¹⁷ Condition A: Unilateral action seen as ineffective AND/OR dangerous; Condition B: Group efforts seen as more effective AND/OR more safe than unilateral ones; Condition C: Low expectations regarding others' cooperation. Because subjects were coded as 1 if they met conditions and 0 if they did not, means are equivalent to percentage of subjects who met conditions based on the total number subjects who responded to all relevant questions. If a subject skipped any of the items related to a condition, that condition was coded as missing data and it was not established whether the subject met the criteria for being in a social dilemma. There was missing data for 7-23 per cent of the subjects, depending on the type of bullying under consideration. Means were not imputed for missing data because conditions were not established based on scales composed of similar items, thus there were no logical means to impute.

	Gender	Grade 6	Grade 7	Grade 8
Conditions A, B, C	Girls	.22 (.42)	.16 (.37)	.10 (.30)
Relational Bullying:	Boys	.07 (.26)	.21 (.41)	.04 (.20)
Meets Conditions A, B, C	Girls	.08 (.28)	.11 (.32)	.14 (.35)

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Table Five, below, provides more detail on the percentage of subjects who fulfilled each of the social dilemma conditions, according to their responses to questions about the different types of bullying that might have occurred in their student home: verbal, physical, and relational.

Table Six, also below, shows the percentage of student homes that fall into various categories related to the percentage of student residents who reported that all three social dilemma conditions exist in their homes. These percentages are also given by gender and type of bullying. Across types of bullying and for both boys' and girls' homes, the large majority of student homes had at least one student reporting all three conditions for social dilemma. However, almost a third of the boys' homes had no students reporting all three conditions related to physical bullying. Additionally, very few homes had more than 40 per cent of their students reporting all three social dilemma conditions.

Table Five: Percentage Of Subjects Whose Responses Reflect Social Dilemma Conditions

Type of Bullying	Conditions	% Who Fulfil Condition	% Who Fulfil all Three Conditions
Verbal (96.2 per cent of subjects reported that they had seen students in their home teased in a hurtful way by other housemates since the school year began)	A: Unilateral action seen as ineffective AND/OR dangerous	56.2	16.1
	B: Group efforts seen as more effective AND/OR more safe than unilateral ones	53.8	
	C: Low expectations regarding others' cooperation	31.4	
Physical (60.7 per cent of subjects reported that they had seen students in their home beat up or pushed around by other housemates since the school year began)	A: Unilateral action seen as ineffective AND/OR dangerous	53.5	12.3
	B: Group efforts seen as more effective AND/OR more safe than unilateral ones	47.2	
	C: Low expectations regarding others' cooperation	29.0	
Relational (91.8 per cent of subjects reported that they had heard students in their home gossiping about other housemates since the school year began.)	A: Unilateral action seen as ineffective AND/OR dangerous	59.8	10.3
	B: Group efforts seen as more effective AND/OR more safe than unilateral ones	43.9	

Type of Bullying	Conditions	% Who Fulfil Condition	% Who Fulfil all Three Conditions
	C: Low expectations regarding others' cooperation	32.0	

Note: All percentages are valid per cents, i.e. based on the number of valid responses.

Table Six: Percentage Of Student Homes With Students Who Reported All Three Social Dilemma Conditions

Gender	Type of Bullying	% of Students in Home Who Reported All Three Social Dilemma Conditions					
		0%	> 0% and < 20%	> 20% and < 40%	> 40%	Missing Data (%)	Total
Girls Homes	Verbal	11.1	44.4	16.7	11.1	16.7	100.0
	Physical	16.7	55.6	22.2	0.0	5.6	100.1
	Relational	16.7	50.0	11.1	0.0	22.2	100.0
Boys Homes	Verbal	15.8	42.1	31.6	0.1	10.5	100.1
	Physical	31.6	36.8	5.3	10.5	15.8	100.0
	Relational	15.8	36.8	21.1	0.0	26.3	100.0

Results From Multilevel Modelling

To assess if and how attitudes, group norms, and social dilemmas predict behaviour in bullying situations, multilevel modelling was employed using Hierarchical Linear Modelling software (Raudenbush and Bryk, 2002). Multilevel modelling is a type of regression analysis designed to handle hierarchical or clustered data. In the current study, students are considered level one units and are clustered in student homes which are considered level two units. Thus observations of students within groups are likely to be more similar than observations of students in different homes. When such conditions exist, it is said that there is an inter-class correlation, and the assumption of independence of observations for regular regression is violated. Multilevel modelling uses independent variables at higher levels (e.g. norms) to adjust the regression of lower level dependent variables (e.g. attitudes) on lower level independent variables (e.g. bullying). The primary difference between multilevel modelling and traditional regression is that the standard errors of the parameters in the latter tend to be underestimated when there is an inter-class correlation and thus can lead to type one errors (or “false positives.”) (Hox, 1998, Kreft and De Leeuw, 1998, Raudenbush and Bryk, 2002).

Grade and attitudes were entered into the model as level one predictors. Such predictors can explain both within and between group variance because each student home is a different group of students. Gender and norms were entered into the model as level two predictors. Because there is only one gender per home, this variable cannot be explained within group variance. Similarly, because the group norms variables were aggregated to the group level, they can only explain variance between groups. The social dilemma variable was entered as a level one predictor (i.e. whether the individual reported all three social dilemma conditions) and, in

aggregate form, as a level two predictor (i.e. the percentage of student home members who reported all three social dilemma conditions). The attitudes and norms predictors were continuous variables whereas the grade, gender, and social dilemma variables were dummy variables.¹⁸

As in Salmivalli and Voeten's study, a Rankit transformation was employed to reduce the influence of outliers and normalise the distribution of behavioural variables. The Rankit procedure orders data points from highest to lowest values and then assigns ranks to each point such that the resulting curve is normal (i.e with a mean of 0 and a standard deviation of 1) (Noruésis and SPSS Inc., 1993). However, the distribution of the raw scores did not strongly depart from normality as they did in the earlier study.

A series of 11 multilevel regression models of increasing complexity were run for each of the dependent variables: bullying; assisting the bully; reinforcing the bully; pro-bullying (composite of the three pro-bullying behaviours); withdrawing from bullying situations; and defending victims of bullying. Each series of regressions began with a null model, which included an intercept and two variance components: behaviour differences between students within student homes and behaviour differences between student home behaviour means. The proportion of the total variance of the dependent variable associated with student homes differences is called the interclass correlation. The null model serves as a reference for subsequent models, each of which includes variables included in previous models as well as an additional variable of interest. Variables that controlled for missing data and/or significant interactions between key variables with gender or grade were added, along with variables of interest as appropriate. Interactions between grade and gender with non-significant coefficients were not included in models.¹⁹

Additionally, for each model that added a level one variable, the model was run twice: once with the slope fixed (or set to zero) at level two and once with a random slope, one that is allowed to vary across groups. The deviance statistics for the two models were then compared to each other, taking into account the number of parameters in each model, using a chi-square test. In none of the tests was a difference statistically significant. Thus all slopes for level one variables were fixed at level two, meaning that the relationship between individual level variables and behaviour outcomes did not vary by student home.

Table Seven shows the variables added to each model and whether they were added at level one or level two.

¹⁸ Unlike in Salmivalli and Voeten's study, the current study did not omit the general intercept and thereby create separate coefficient estimates for each grade. Instead grade six was used as the reference category for grade.

¹⁹ Each model was run with interactions between the variables of interest added to that model and gender and grade. If the coefficients with gender or grade were non-significant, the model was re-run without them. Only significant interactions were kept in the models.

Table Seven: Variables Added To Each Model And The Level At Which They Were Added²⁰

Model	Variables Added (Level)
Null	--
1	Grade (1) ²¹
2	Gender (2) ²²
3	Anti-Bullying Attitudes (1) Anti-Bullying Attitudes Control for Missing Data (1)
4	Anti-Bullying Norms (2) Anti-Bullying Norms Control for Missing Data (2)
5	Neutral Norms (2) Neutral Norms Control for Missing Data (2)
6	Social Dilemma - Verbal Bullying (1) Social Dilemma - Verbal Bullying Control for Missing Data (1)
7	Social Dilemma - Physical Bullying (1) Social Dilemma - Physical Bullying Control for Missing Data (1)
8	Social Dilemma - Relational Bullying (1) Social Dilemma - Relational Bullying Control for Missing Data (1)
9	Mean Social Dilemma - Verbal Bullying (2) Mean Social Dilemma - Verbal Bullying Control for Missing Data (2)
10	Mean Social Dilemma - Physical Bullying (2) Mean Social Dilemma - Physical Bullying Control for Missing Data (2)
11	Mean Social Dilemma - Relational Bullying (2) Mean Social Dilemma - Physical Bullying Control for Missing Data (2)

Deviance is $-2*LN$, where LN is the value of the likelihood function at convergence. In general, models with lower deviance fit the data better than those with higher deviance. Differences between deviance statistics in nested models (meaning a specific model can be derived from a more general one by removing parameters) have a chi-square distribution. Thus one can determine if the difference between two deviance statistics, taking into account the degrees of freedom lost, is significant. This type of comparison is particularly useful when the variance between groups is not uniquely defined (i.e. when random slopes are included in models) (Kreft and De Leeuw, 1998, Hox, 2002). Because none of the models in the present study included random slopes, the number of parameters in all models was two (a variance at each of the two levels). Thus the degree of freedom lost (i.e. the difference between the number of parameters for two models) was always equal to 0. As a consequence, chi-square statistics could not be calculated.²³ However, as

²⁰ Interactions between variables of interest and grade and gender were also added when their coefficients were statistically significant.

²¹ Grade is a level one variable because each home includes students from grades six seven, and eight.

²² Gender is a level two variable because there is only one gender per student home.

²³ Other methods of comparing model fit such as Akaike's Information Criterion (AIC) and Bayesian Information Criterion (BIC) were also not helpful. The AIC equation includes a penalty for the number of parameters in each model. However, because the number of parameters in the present study remained the same across the models, AIC simply adds four to each deviance statistic and therefore does not change the magnitude of difference between models. BIC adds a further penalty for sample size, which would also be the same across models in the current study. Additionally, Hox notes that because there are two sample sizes in multilevel modelling (one for each level), BIC is not recommended with this type of regression

reductions in deviance indicate improvement in fit, successive models were compared to each other to identify the relative importance of each of the variables of interest to model improvement.

Table Eight shows the deviance statistic for each model and for each behaviour. The variables of interest added in each model are also noted. The results suggest that grade and gender were not important factors in predicting behaviour in bullying situations. Grade did not improve fit in any of the models, except for the defending models. In fact, the negative differences indicate that the deviance actually increased when adding grade, indicating that this variable unnecessarily complicated some models and would be excluded in any model-building effort. Similarly, the deviances for all of the behaviours, except bullying, increased when gender was added to the models. Additionally, gender did relatively little to improve the fit of the bullying model.

By contrast to grade and gender, and consistent with Hypothesis Two, anti-bullying attitudes made a substantial contribution to model fit for all behaviours, except withdrawing. The deviance statistic decreased by 26.75 for pro-bullying behaviours (i.e. bullying, assisting, reinforcing, and composite pro-bullying) and by 8.83 for defending behaviour. However, the deviance increased for withdrawing behaviour, suggesting that anti-bullying attitudes are not associated with staying outside of bullying situations.

Contrary to Hypothesis Two, anti-bullying norms did not improve the model fit for any of the behaviours. Indeed adding this variable to models resulted in increases in deviance statistics. Neutral norms, however, did decrease deviance, but by relatively small amounts, ranging from differences of .55 for defending behaviour to 3.75 for assisting behaviour.

Also contrary to expectations, none of the social dilemma variables entered at level one did much to improve model fit. For most behaviours, these variables increased the deviance statistic. Additionally, in most of the cases in which model fit improved, the differences between the deviances statistics and those in the former models were modest (between one and two). However, the level one social dilemma variable related to relational bullying resulted in a decrease of 6.52 in deviance for reinforcing behaviour.

By contrast to the level one results for social dilemmas, group means for social dilemmas, added at level two, substantially improved model fit for all behaviours, particularly for social dilemmas related to physical and relational bullying. Differences in deviance statistics for social dilemmas related to physical and relational bullying ranged from 5.23 to 15.94.

The findings suggest that individual attitudes and the number of students reporting social dilemma conditions within a group are the most important of the predictors tested in the present study for understanding behaviour in bullying situations.

Table Eight: Deviance Statistics For Models Of Increasing Complexity For Each Of The Behaviours And Differences In Deviance Between Previous And Present Models

	Model	Null	1	2	3	4	5	6	7	8	9	10	11
	Variable of Interest Added		Grade	Gender	Anti-Bullying Attitude	Anti-Bullying Norms	Neutral Norms	Social Dilemma (Verbal Bullying)	Social Dilemma (Physical Bullying)	Social Dilemma (Relational Bullying)	Mean Social Dilemma (Verbal Bullying)	Mean Social Dilemma (Physical Bullying)	Mean Social Dilemma (Relational Bullying)
Bullying Models	Deviance	804.762	807.327	806.317	779.567	781.882	780.707	781.043	783.11	782.009	776.902	768.383	758.517
	Difference	n/a	-2.565	1.01	26.75	-2.315	1.175	-0.336	-2.067	1.101	5.107	8.519	9.866
Assisting Models	Deviance	805.975	809.805	810.482	783.634	787.236	783.486	784.585	787.239	785.336	779.542	769.278	761.939
	Difference	n/a	-3.83	-0.677	26.848	-3.602	3.75	-1.099	-2.654	1.903	5.794	10.264	7.339
Reinforcing Models	Deviance	810.461	814.209	816.434	784.445	785.535	782.928	783.254	785.964	779.44	773.865	761.164	753.261
	Difference	n/a	-3.748	-2.225	31.989	-1.09	2.607	-0.326	-2.71	6.524	5.575	12.701	7.903
Pro-Bullying (Composite) Models	Deviance	808.659	812.158	812.596	782.105	784.39	781.821	782.363	785.0763	784.146	778.651	768.191	759.454
	Difference	n/a	-3.499	-0.438	30.491	-2.285	2.569	-0.542	-2.713	0.9303	5.495	10.46	8.737
Withdrawing Models	Deviance	820.408	820.908	820.953	823.699	830.306	829.28	830.52	829.206	830.71	827.295	811.807	802.068
	Difference	n/a	-0.5	-0.045	2.746	-6.607	1.026	-1.24	1.314	-1.504	3.415	15.488	9.739
Defending Models	Deviance	821.088	812.895	816.545	807.718	809.382	808.835	810.218	810.844	812.794	794.083	788.856	772.909
	Difference	n/a	8.193	-3.65	8.827	-1.664	-0.547	-1.383	-0.626	-1.95	18.711	5.227	15.947

Table Nine provides the regression coefficients for the variables of interest and related standard errors for the final model (Model 11) for each of the dependent variables. The coefficients are not standardised. Thus comparisons across predictors should be considered relative to their standard errors. Review of the coefficients begins with within group (level one) predictors and then focuses on between group (level two) predictors.

Table Nine: Effects of Grade, Gender, Attitudes, Group Norms, And Social Dilemmas On Behaviour In Bullying Situations Estimated For The Final Model (M11): Regression Coefficients (With Standard Errors)

	Bullying	Assisting the Bully	Reinforcing the Bully	Composite Pro-Bullying Behaviour	Withdrawing	Defending the Victim
Constant ²⁴	-0.596 (0.246)*	-0.580 (0.249)*	-0.550 (0.239)*	-0.613 (0.241)*	-1.237 (0.345)**	0.020 (0.230)
Level One (Within Group) Predictors						
Grade 7	0.110 (0.137)	0.032 (0.138)	0.018 (0.137)	0.038 (0.137)	0.015 (0.150)	0.228 (0.141)
Grade 8	-0.049 (0.132)	-0.063 (0.133)	-0.200 (0.134)	-0.087 (0.133)	0.230 (0.145)	0.850 (0.180)**
Anti-Bullying Attitudes	-0.444 (0.096)**	-0.458 (0.096)**	-0.476 (0.096)**	-0.484 (0.096)**	0.066 (0.105)	0.378 (0.100)**
Social Dilemma (Verbal Bullying)	-0.187 (0.162)	-0.193 (0.163)	-0.197 (0.162)	-0.203 (0.163)	-0.171 (0.179)	-0.152 (0.173)
Social Dilemma (Physical Bullying)	-0.042 (0.180)	0.070 (0.181)	-0.016 (0.182)	-0.018 (0.181)	0.165 (0.199)	0.038 (0.193)
Social Dilemma (Relational Bullying)	-0.353 (0.186)	-0.393 (0.187)*	-0.594 (0.229)*	-0.327 (0.187)†	0.122 (0.205)	0.125 (0.200)
Social Dilemma (Relational Bullying) X Grade 8	--	--	0.893 (0.387)*	--	--	--
Level Two (Between Group) Predictors						
Gender	0.420 (0.145)**	0.331 (0.148)*	0.282 (0.142)†	0.353 (0.142)*	0.976 (0.277)*	0.335 (0.201)
Anti-Bullying Norms	-0.026 (0.012)*	-0.030 (0.012)*	-0.035 (0.012)*	-0.030 (0.012)*	0.005 (0.014)	0.018 (0.010) †
Neutral Norms	0.064 (0.073)	0.161 (0.075)*	0.148 (0.071)*	0.126 (0.072)†	0.042 (0.081)	-0.129 (0.058)*
Mean Social	-0.725	-0.584	-0.772	-0.721	-0.454	0.179

²⁴ Constant represents reference group for dummy variables (i.e. girls, grade six, and reporting less than three of the conditions for social dilemma) as well as the mean for grand mean centered variables (i.e. mean attitudes, mean anti-bullying norms, and mean neutral norms).

	Bullying	Assisting the Bully	Reinforcing the Bully	Composite Pro-Bullying Behaviour	Withdrawing	Defending the Victim
Dilemma (Verbal Bullying)	(0.798)	(0.811)	(0.774)	(0.781)	(0.828)	(0.683)
Mean Social Dilemma (Verbal Bullying) X Gender	--	--	--	--	--	-2.389 (1.00)*
Mean Social Dilemma (Physical Bullying)	1.510 (0.807)†	1.685 (0.820)†	2.444 (0.784)*	1.992 (0.791)*	5.159 (1.536)**	-1.140 (0.723)
Mean Social Dilemma (Physical Bullying) X Gender	--	--	--	--	-5.273 (1.731)**	--
Mean Social Dilemma (Relational Bullying)	2.269 (1.020)*	1.762 (1.035)†	1.888 (0.990)†	2.007 (0.999)†	2.086 (1.130)†	0.309 (0.964)
Mean Social Dilemma (Relational Bullying) X Grade Eight	--	--	--	--	--	-3.156 (1.191)**

* = $p < .05$, ** = $p < .01$, † = $p \leq .10$

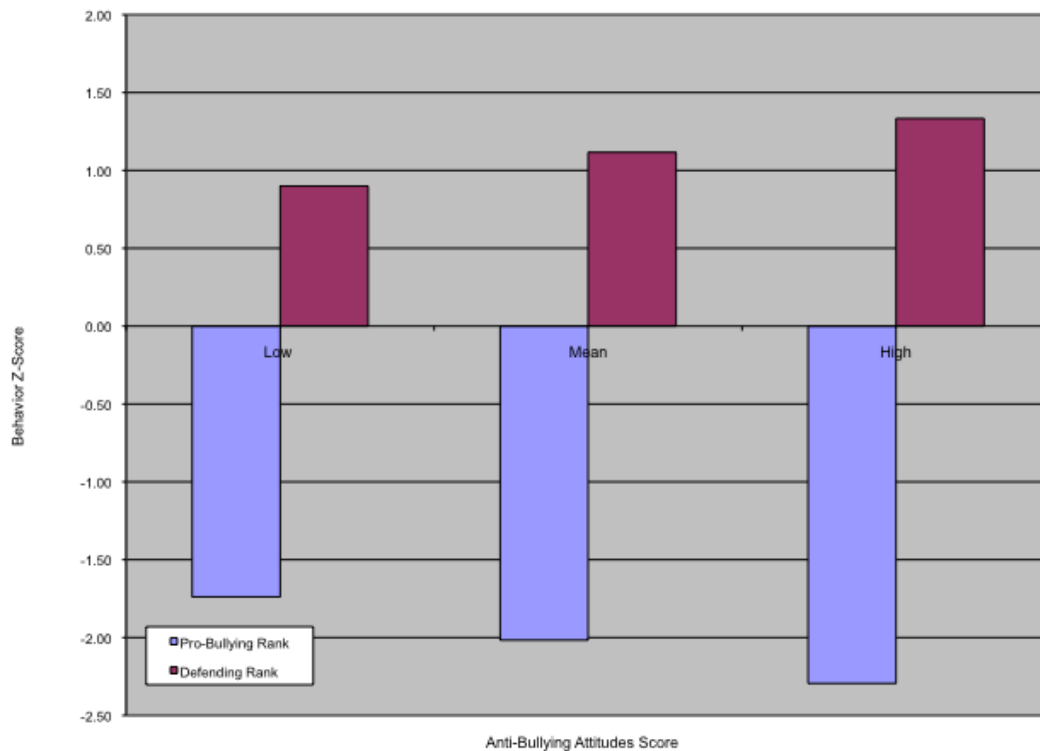
Note: HLM analyses were performed separately for each bullying-related behaviour. “Composite Pro-Bullying Behaviour” was computed from all items related to bullying, assisting, and reinforcing behaviour. This outcome was included due to evidence that items related to bullying, assisting, and reinforcing behaviour may be measuring the same underlying construct. The regression coefficients were not standardised. Interaction coefficients are reported only when significant. All models also included variables to control for missing data on all variables except for grade and gender. To see coefficients and standard errors for the control variables, please see Table Twelve (called “Full Coefficient Table”) in Appendix B. The coefficients for the social dilemma variables refer to all students unless an interaction with grade or gender is also in the model, in which case the social dilemma effects apply to Grade Six or girls, respectively.

Grade. Grade was entered as a dummy variable with Grade Six as the reference category. As indicated by the regression coefficients, the differences between seventh graders’ and sixth graders’ behaviour in bullying situations were not statistically significant. Similarly, eighth graders did not differ from sixth graders in terms of their behaviour, except in regard to defending victims. Students in the eighth grade, on average, ranked significantly higher on defending behaviour than those in the sixth grade.

Anti-Bullying Attitudes. As set forth by Hypothesis Two, the coefficients suggest that as anti-bullying attitudes increased, pro-bullying ranks decreased and defending ranks increased. Anti-bullying attitudes, however, did not have a significant effect on withdrawing behaviour. Figure C shows the expected behaviour ranks for sixth

grade girls whose attitudes are low (mean – 1 standard deviation), at the mean, and high (mean +1 standard deviation) on the anti-bullying attitude scale. Expected behaviour ranks for boys or students in grades seven and eight were not included on the graph because the difference in the relationship between attitudes and behaviour did not vary significantly by gender or grade.

Figure C: Expected Ranks For Pro-Bullying And Defending Behaviour X Anti-Bullying Attitudes (for girls in Grade Six, differences between genders and grades were not significant)



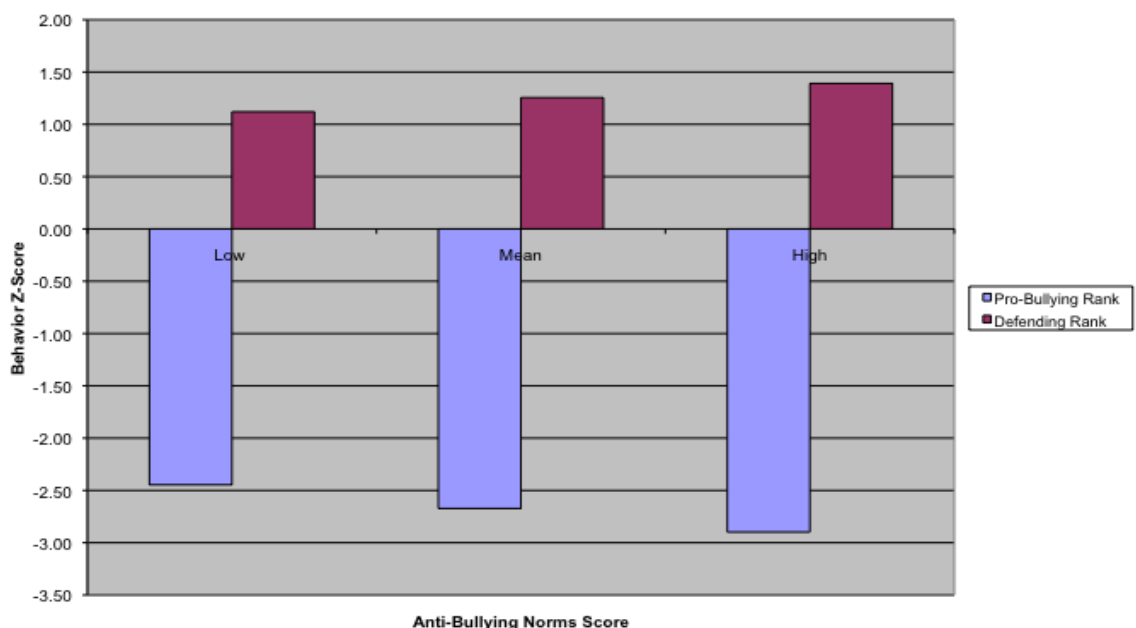
Figures C through I provide an important visual understanding about the strength of the predictors in this study. As the discussion of coefficients and the following discussion of variances both indicate, the independent variables included in the study had a relatively weak, although significant, association with the dependent variables. These results suggest that other predictors, not included in the present study, would have stronger associations with behaviour in bullying situations and/or that there are a multitude of factors that are associated with these behaviours. The recent meta-analysis by Cook et al. suggests the latter. They noted that even the strongest predictors across 153 studies were only moderate in their strength, according to Cohen’s conventional guidelines. The graphs in figures C through I show that even students who had low scores on such significant predictors as anti-bullying attitudes, generally fell below the mean on pro-bullying behaviour and above the mean on defending behaviour. The type of visual representation of data provided by these graphs are important for interpreting findings accurately and not exaggerating effects based on significance (Cohen, 1992, Cook et al., 2010).

Social Dilemmas. Contrary to expectations, within group variation on reporting social dilemma conditions generally did not predict behaviour in bullying situations.

All coefficients were non-significant, with the exception of those for social dilemmas related to relational bullying. The coefficient for this variable was significant (or approached significance) in the models for assisting the bullying, reinforcing the bullying, and the pro-bullying composite outcome. In each of these cases, there was an inverse relationship between reporting social dilemma conditions and pro-bullying behaviour. Thus, contrary to expectations, those who reported all three conditions tended to rank lower on pro-bullying behaviour. However the effect sizes, given that the values for social dilemmas could only be 1 or 0, were modest. Additionally, the reinforcing models included a significant interaction between this variable and grade, such that the relationships between reporting social dilemma conditions and reinforcing behaviour is positive for eighth graders. Eighth grade students who reported all three social dilemma conditions ranked higher on reinforcing behaviour than eighth grades students, who did not report all three conditions.

Gender. The coefficient on gender was significant for all behaviours except reinforcing and defending, and in the former case, the coefficient approached significance. In general, boys' homes ranked higher than girls' homes on pro-bullying behaviours and on withdrawing behaviour.

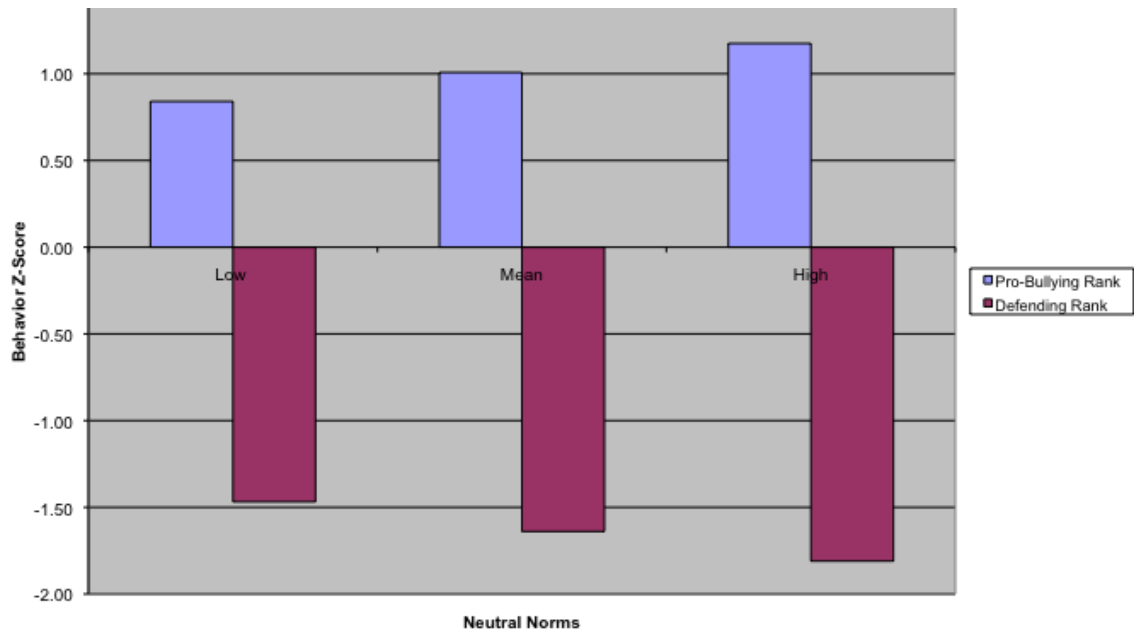
Figure D: Expected Ranks For Pro-Bullying And Defending Behaviour X Anti-Bullying Norms (for girls in Grade Six, differences between gender and grades were not significant)



Group Norms. The relationship of anti-bullying norms to pro-bullying behaviours was significant and in the expected direction: as anti-bullying norms increased, pro-bullying behaviour ranks decreased. The coefficient for withdrawing behaviour was not significant, and the anti-bullying norms coefficient for defending behaviour approached significance and was positive, as expected. Student homes that ranked higher on neutral norms tended to have students that ranked higher on pro-bullying

behaviour and lower on defending, although the coefficient for bullying behaviour was not significant and the coefficient for the composite pro-bullying outcome only approached significance. Additionally, the coefficient for neutral norms related to withdrawing behaviour was not significant. Figures D and E show the expected behaviour ranks for sixth grade girls whose homes' anti-bullying and neutral group norms were low (mean – 1 standard deviation), at the mean, and high (mean +1 standard deviation) on the norms scales. These graphs demonstrate that, although

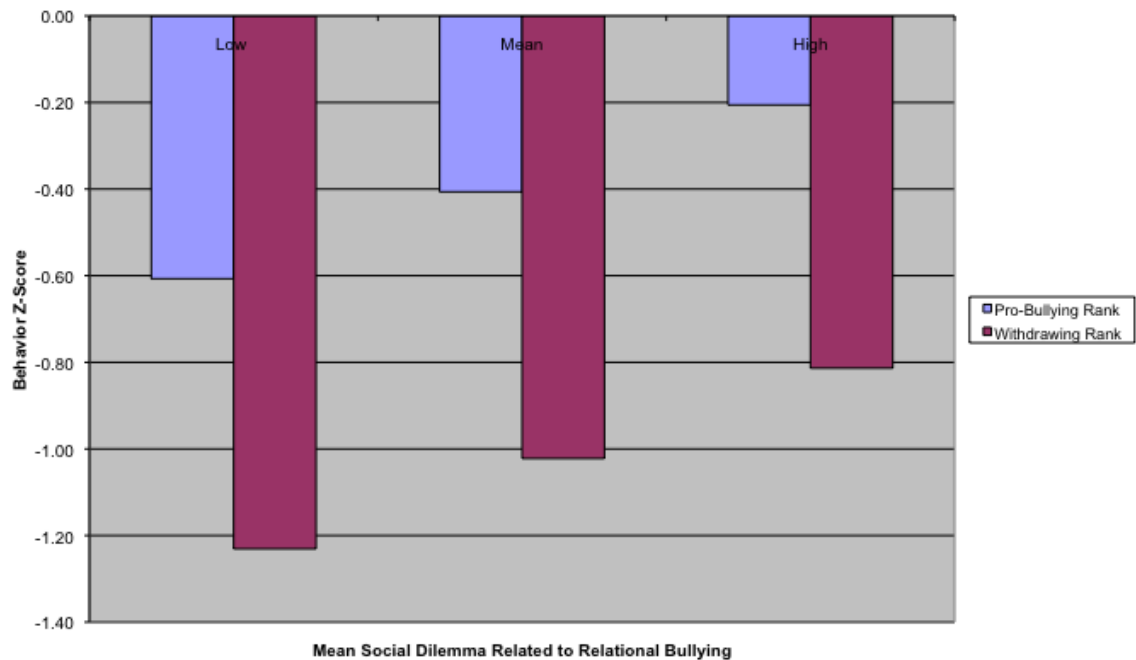
Figure E: Expected Ranks For Pro-Bullying And Defending Behaviour X Neutral Norms (For girls in Grade Six, differences between genders and grades were not significant)



norms had a statistically significant effect on pro-bullying and defending behaviours, the effect sizes were relatively small. These small effect sizes are consistent with the finding described above that adding group norms to the model resulted in small to non-existent improvements in model fit.

Mean Social Dilemmas. The number of students in a student home, reporting all three social dilemma conditions related to either physical or relational bullying, tended to have a positive relationship with pro-bullying behaviours and withdrawing, as expected. Some of the coefficients only approached significance but given the pattern of findings and the relatively small level two sample size, it seems reasonable to conclude that a larger sample size might produce significant findings for all of these coefficients. Figure F shows the expected behaviour ranks for sixth grade girls in student homes with low (mean – 1 standard deviation), mean, and high (mean +1 standard deviation) numbers of housemates reporting social dilemma conditions related to relational bullying. It should be noted that, even those sixth grade girls who lived in student homes that had “high” mean scores on social dilemma related to relational bullying (which means that 20 per cent of the housemates reported all three conditions), tended to score below the mean on pro-bullying and withdrawing behaviour.

Figure F: Expected Ranks For Pro-Bullying And Withdrawing Behaviour X Mean Social Dilemmas (Relational Bullying)

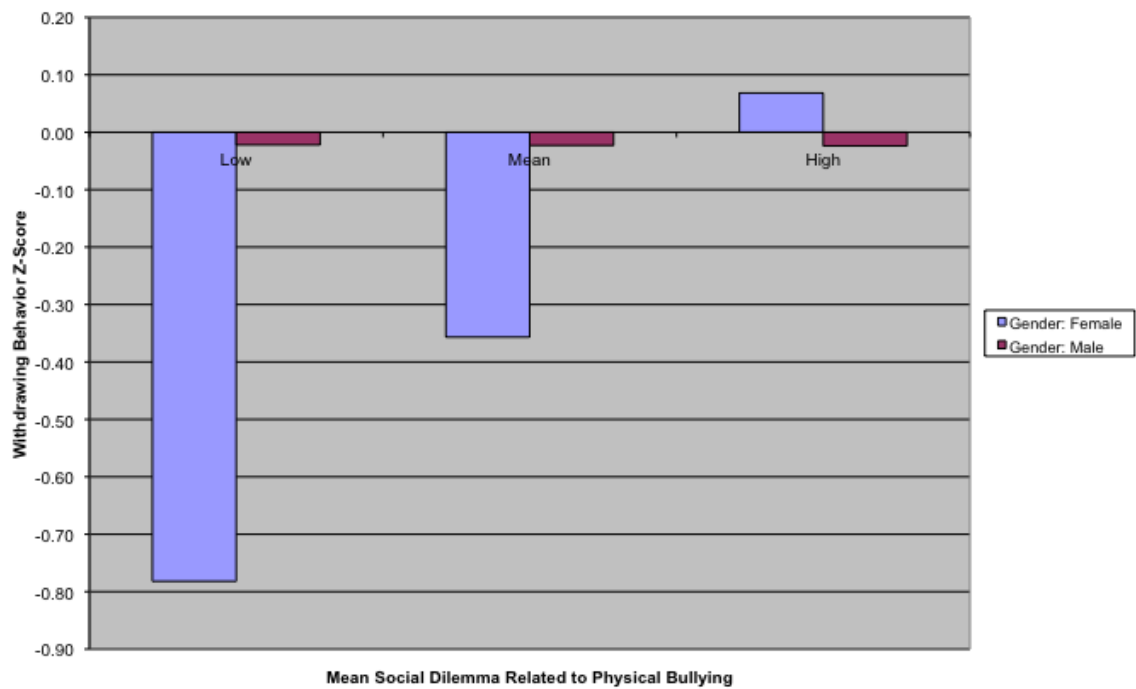


Should it say dilemmas above??

It should be noted that none of the coefficients for mean social dilemmas related to verbal bullying were significant (although note interaction discussed below). Additionally, several significant interactions indicate that the relationship between mean social dilemmas and behaviour sometimes varied by gender or grade. Figure G shows that while mean social dilemmas related to physical bullying did not predict withdrawing behaviour for boys, it strongly predicted behaviour for girls, who, on average score far below the mean on withdrawing behaviour in student homes with low mean scores (mean – 1 SD) and score slightly above the mean on withdrawing behaviour in homes with high mean scores (mean + 1 SD). Additionally, Figure H shows that while mean social dilemmas related to verbal bullying did not predict girls’ defending behaviour, it appeared to have a strong relationship with boys’ defending behaviour. Boys in student homes with low mean social dilemmas (mean – 1 SD) tended to score above the mean on defending behaviour while boys in homes with high social dilemmas (mean + 1 SD) tended to score below the mean on defending behaviour. Finally, a significant interaction between grade and mean social dilemma related to relational bullying was detected in the final defender model. Figure I shows that sixth graders’ defending behaviour, on average, was not strongly associated with the number of housemates reporting social dilemma conditions related to relational bullying. However, eighth grade students in homes with low mean social dilemmas (mean – 1 SD) tended to rank substantially higher on defending behaviour than those in high mean social dilemma homes (mean + 1 SD). Although it should be noted that even students in homes with high mean social dilemmas tended to score above the mean on defending behaviour.²⁵

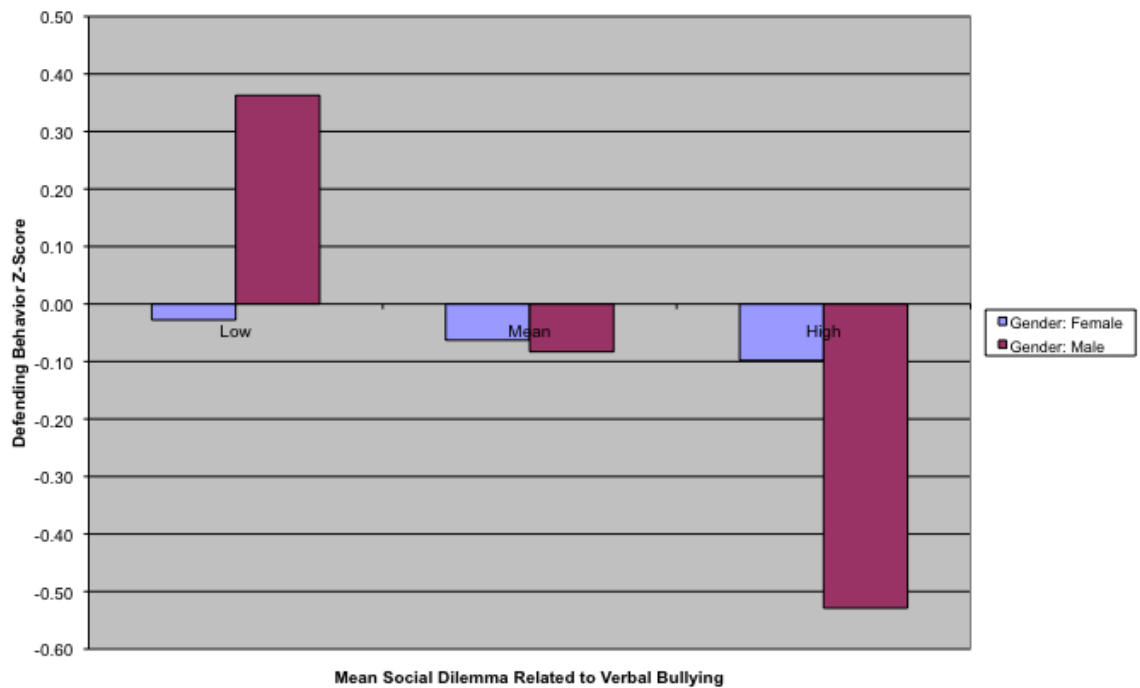
²⁵ Note that Figures H and I show expected ranks for sixth graders because differences in these relationships did not vary significantly by grade.

Figure G: Expected Ranks For Withdrawing Behaviour X Mean Social Dilemmas (Physical Bullying) X Gender



Thus the investigation of the coefficients and standard errors, like the examination of deviance statistics, points to the importance of the attitude and mean social dilemma predictors in understanding behaviour in bullying situations. Specifically anti-bullying attitudes and the absence of social dilemma conditions (as reported by housemates) are related to less pro-bullying behaviour and more defending behaviour. Additionally, gender and norms appeared somewhat more important to understanding behaviour in bullying situations when examining coefficients, than when deviance statistics were used as indicators.

Figure H: Expected Ranks For Defending Behaviour X Mean Social Dilemmas (Verbal Bullying) X Gender



In addition to deviance and coefficient statistics, HLM also produces data on the variance components of each model. Variance is analogous to the error term in traditional regression equations. It is the variance that remains after accounting for the predictors in the model. The multilevel model decomposes the total variation into a component at the individual level (i.e. within student home variation) and at the group level (i.e. between student home variation). Models with random slopes include additional variance components for each slope as well as covariance among slopes and intercepts. However, as noted above, in the present study, all slopes for level one variables were fixed at level two, meaning that the relationship between the individual-level variables and the behaviour outcomes did not vary by student home.

Table Ten shows the variances as well as the explained variance (defined below) at each level for each model. The table also shows the interclass correlation (ICC) for each of the behaviour outcomes. ICC measures the degree to which individuals share common experiences due to proximity in space and time. Thus it is defined as the proportion of the total variance in the outcome between groups. Typical ICCs range from 0 to 30 per cent in studies which use households as groups (Gulliford et al., 1999). ICCs for outcome behaviours in the present study ranged from 11.5 per cent for defending and withdrawing behaviour to 19-20 per cent for pro-bullying behaviours. This finding supports Hypothesis One that both individual and group factors are associated with behaviour in bullying situations. Additionally, while there were clear associations between context and behaviour for all of the behaviours measured, the pro-bullying behaviours were more closely associated with context than were withdrawing and defending.

Figure I: Expected Ranks For Defending Behaviour X Mean Social Dilemmas (Relational Bullying) X Grade

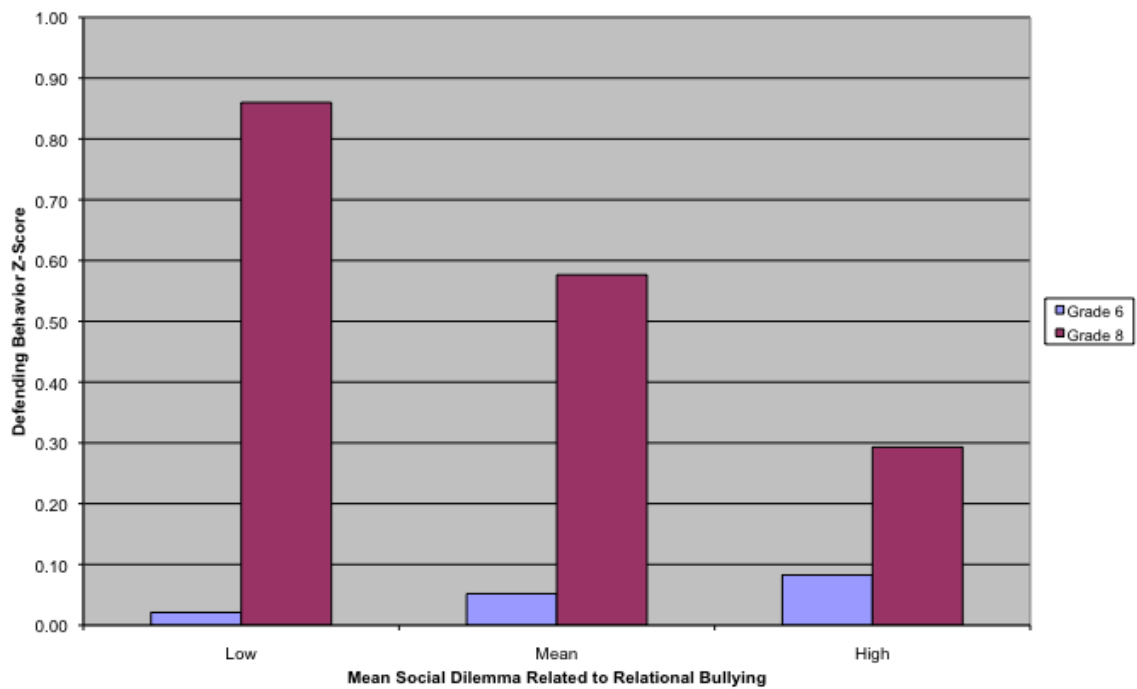


Table Ten: Total Explained Variance (R^2) For Each Model

Behavior and ICC	Model	Variables Added (Level Added)	Level 1 Variance	Level 2 Variance	R^2_w (%)	R^2_B (%)
Bullying ICC: 20.36%	Null		0.802	0.205		
	1	Grade (1)	0.802	0.202	0.00	1.46
	2	Gender (2)	0.804	0.170	-0.25	17.07
	3	Anti-Bullying Attitudes (1)	0.728	0.149	9.23	27.32
	4	Anti-Bullying Norms (2)	0.727	0.137	9.35	33.17
	5	Neutral Norms (2)	0.726	0.130	9.48	36.59
	6	Social Dilemma - Verbal Bullying (1)	0.720	0.139	10.22	32.20
	7	Social Dilemma - Physical Bullying (1)	0.725	0.134	9.60	34.63
	8	Social Dilemma - Relational Bullying (1)	0.716	0.145	10.72	29.27
	9	Social Dilemma - Verbal Bullying (2)	0.716	0.142	10.72	30.73
	10	Social Dilemma - Physical Bullying (2)	0.717	0.119	10.60	41.95
11	Social Dilemma - Relational Bullying (2)	0.719	0.086	10.35	58.05	
Assisting the Bully ICC: 19.86%	Null		0.807	0.2		
	1	Grade (1)	0.81	0.202	-0.37	-1.00
	2	Gender (2)	0.81	0.187	-0.37	6.50
	3	Anti-Bullying Attitudes (1)	0.734	0.163	9.05	18.50
	4	Anti-Bullying Norms (2)	0.733	0.159	9.17	20.50
	5	Neutral Norms (2)	0.733	0.132	9.17	34.00
6	Social Dilemma - Verbal Bullying (1)	0.729	0.141	9.67	29.50	

Behavior and ICC	Model	Variables Added (Level Added)	Level 1 Variance	Level 2 Variance	R ² _w (%)	R ² _B (%)
	7	Social Dilemma - Physical Bullying (1)	0.736	0.137	8.80	31.50
	8	Social Dilemma - Relational Bullying (1)	0.725	0.146	10.16	27.00
	9	Social Dilemma - Verbal Bullying (2)	0.725	0.138	10.16	31.00
	10	Social Dilemma - Physical Bullying (2)	0.726	0.102	10.04	49.00
	11	Social Dilemma - Relational Bullying (2)	0.726	0.091	10.04	54.50
Reinforcing the Bully ICC: 19.08%	Null		0.823	0.194		
	1	Grade (1)	0.825	0.198	-0.24	-2.06
	2	Gender (2)	0.825	0.196	-0.24	-1.03
	3	Anti-Bullying Attitudes (1)	0.737	0.161	10.45	17.01
	4	Anti-Bullying Norms (2)	0.735	0.141	10.69	27.32
	5	Neutral Norms (2)	0.735	0.123	10.69	36.60
	6	Social Dilemma - Verbal Bullying (1)	0.729	0.132	11.42	31.96
	7	Social Dilemma - Physical Bullying (1)	0.733	0.134	10.94	30.93
	8	Social Dilemma - Relational Bullying (1)	0.715	0.151	13.12	22.16
	9	Social Dilemma - Verbal Bullying (2)	0.715	0.145	13.12	25.26
	10	Social Dilemma - Physical Bullying (2)	0.715	0.092	13.12	52.58
11	Social Dilemma - Relational Bullying (2)	0.716	0.075	13.00	61.34	
Composite Pro-Bully Behavior ICC: 19.86%	Null		0.815	0.202		
	1	Grade (1)	0.817	0.203	-0.25	-0.50
	2	Gender (2)	0.817	0.185	-0.25	8.42
	3	Anti-Bullying Attitudes (1)	0.732	0.157	10.18	22.28
	4	Anti-Bullying Norms (2)	0.73	0.145	10.43	28.22
	5	Neutral Norms (2)	0.73	0.127	10.43	37.13
	6	Social Dilemma - Verbal Bullying (1)	0.725	0.137	11.04	32.18
	7	Social Dilemma - Physical Bullying (1)	0.731	0.135	10.31	33.17
	8	Social Dilemma - Relational Bullying (1)	0.723	0.144	11.29	28.71
	9	Social Dilemma - Verbal Bullying (2)	0.723	0.138	11.29	31.68
	10	Social Dilemma - Physical Bullying (2)	0.723	0.101	11.29	50.00
11	Social Dilemma - Relational Bullying (2)	0.725	0.077	11.04	61.88	
Withdrawing ICC: 11.55%	Null		0.888	0.116		
	1	Grade (1)	0.876	0.127	1.35	-9.48
	2	Gender (2)	0.874	0.114	1.58	1.72
	3	Anti-Bullying Attitudes (1)	0.875	0.117	1.46	-0.86
	4	Anti-Bullying Norms (2)	0.875	0.129	1.46	-11.21
	5	Neutral Norms (2)	0.875	0.123	1.46	-6.03
6	Social Dilemma - Verbal Bullying (1)	0.877	0.121	1.24	-4.31	

Behavior and ICC	Model	Variables Added (Level Added)	Level 1 Variance	Level 2 Variance	R^2_w (%)	R^2_B (%)
	7	Social Dilemma - Physical Bullying (1)	0.87	0.124	2.03	-6.90
	8	Social Dilemma - Relational Bullying (1)	0.873	0.126	1.69	-8.62
	9	Social Dilemma - Verbal Bullying (2)	0.873	0.138	1.69	-18.97
	10	Social Dilemma - Physical Bullying (2)	0.872	0.107	1.80	7.76
	11	Social Dilemma - Relational Bullying (2)	0.873	0.078	1.69	32.76
Defending the Victim ICC: 11.53%	Null		0.89	0.116		
	1	Grade (1)	0.851	0.126	4.38	-8.62
	2	Gender (2)	0.851	0.133	4.38	-14.66
	3	Anti-Bullying Attitudes (1)	0.826	0.114	7.19	1.72
	4	Anti-Bullying Norms (2)	0.825	0.095	7.30	18.10
	5	Neutral Norms (2)	0.824	0.092	7.42	20.69
	6	Social Dilemma - Verbal Bullying (1)	0.829	0.084	6.85	27.59
	7	Social Dilemma - Physical Bullying (1)	0.833	0.076	6.40	34.48
	8	Social Dilemma - Relational Bullying (1)	0.836	0.079	6.07	31.90
	9	Social Dilemma - Verbal Bullying (2)	0.84	0.019	5.62	83.62
	10	Social Dilemma - Physical Bullying (2)	0.838	0.023	5.84	80.17
11	Social Dilemma - Relational Bullying (2)	0.821	0.003	7.75	97.41	

Because none of the models included random slopes, it was possible to compute explained (or modelled) variance, analogous to R-squared statistics in traditional regression. The figures are computed by subtracting the variances of the present model from the variances of the null model and dividing by the variances of the null model. Thus they show the proportion of total variance at each level that is explained after the addition of the variable added to the present model. In some cases, the addition of predictors to a model actually increased the variance and thus decreased the variance explained. These predictors unnecessarily complicated the models, using up degrees of freedom and thus increasing variance.²⁶

Table Ten shows that the variable that explained the most within group variance for the pro-bullying behaviour outcome was anti-bullying attitudes. None of the other predictors resulted in sizeable decreases in variances (or increases in explained variance.) Indeed while the ICCs indicate that the majority of the variance in the behaviours is explained at the individual level, the predictors included in the present study's models did not explain much of that variance. For the pro-bullying

²⁶ Additionally, if a predictor that models part of the within group variability does not model part of the between-group variability, the decrease in the level one variance must be balanced by an increase in the estimate of the level two variance. Adding a level one predictor results in a decrease in the similarity within groups and, consequently, an increase in the dissimilarity between groups
SNIJDERS, T. A. B. & BOSKER, R. J. (1994) Modeled variance in two-level models. *Sociological Methods and Research*, 22, 342-363.

behaviour models, the predictors explained 10-13 per cent of the level one variance. Eight per cent of the variance for defending behaviour and only two per cent of the variance for withdrawing were explained by the predictors in the models.

The predictors explained significantly more of the level two variance. For the pro-bullying models, the predictors explained 54 to 62 per cent of the level two variance. The predictors explained 33 per cent of the between group variance in withdrawing behaviour and 97 per cent of the between group variance in defending behaviour.

For the pro-bullying models (with the exception of reinforcing), adding gender resulted in sizeable increases in explained variance, particularly for bullying behaviour. The addition of anti-bullying attitudes resulted in even larger increases in explained variance. (Although attitudes were added at the individual level, housemates' similarity in attitudes resulted in reductions in level two variance.) Anti-bullying norms and neutral norms also generally resulted in sizeable reductions in level two variance for pro-bullying behaviours. Finally, although adding the individual reports of social dilemma conditions had very little effect on the overall explained variance in the pro-bullying models, adding the mean social dilemma variables related to physical and relational bullying resulted in sizeable increases in explained level two variance.

For the withdrawing models, most of the predictors added resulted in decreases in explained level two variance. Indeed, the only predictors that had a substantial effect were the mean social dilemma variables related to physical and relational bullying. Adding the mean social dilemma variable related to relational bullying increased explained variance at level two from 7.76 percent to 32.76 percent.

For the defending models, the additions of anti-bullying norms, mean social dilemma related to verbal bullying, and mean social dilemmas related to relational bullying each resulted in substantial increases in explained variance.

Examination of the variances provides a clearer understanding of the overall influence of individual versus group factors and at what level and to what degree the independent variables included in the present study predict behaviour in bullying situations. The results show that although both individual factors and group factors are important, individual factors are more important. Attitudes toward bullying is an important individual factor but other factors, not included in the present study, are also important. Attitudes, norms, gender, and social dilemmas are all important group factors in predicting behaviour according to the variance results. Notably, mean social dilemmas was the only factor included in the present study that substantially helped to predict withdrawing behaviour. As more housemates reported social dilemma conditions, individuals' scores on withdrawing from bullying situations increased.

Summary

To assess if and how attitudes, group norms, and social dilemmas predict behaviour in bullying situations, multilevel modeling was employed using Hierarchical Linear Modeling software. A series of 11 multilevel regression models of increasing complexity were run for each of the dependent variables: bullying, assisting the bully, reinforcing the bully, pro-bullying (composite of the three pro-bullying behaviours), withdrawing from bullying situations, and defending victims of bullying.

Analyses of deviance statistics suggested that, consistent with Hypothesis Two, anti-bullying attitudes made a substantial contribution to the model, fit for all behaviours, except withdrawing. However, contrary to Hypothesis Two, anti-bullying norms did not improve the model, fit for any of the behaviours. Also contrary to expectations, none of the social dilemma variables entered at level one did much to improve model fit. By contrast, group means for social dilemmas, added at level two, substantially improved model fit for all behaviours, particularly for social dilemmas related to physical and relational bullying.

Analyses of regression coefficients suggested that as anti-bullying attitudes increased, pro-bullying ranks decreased and defending ranks increased. Anti-bullying attitudes, however, did not have a significant effect on withdrawing behaviour. Additionally, the relationship of anti-bullying norms to pro-bullying behaviours was significant and in the expected direction: as anti-bullying norms increased, pro-bullying behaviour ranks decreased. The coefficient for withdrawing behaviour was not significant, and the anti-bullying norms coefficient for defending behaviour approached significant and was positive, as expected. Contrary to expectations, within group variation on reporting, social dilemma conditions generally did not predict behaviour in bullying situations. However, the number of students in a student home reporting all three social dilemma conditions related to either physical or relational bullying tended to have a positive relationship with pro-bullying behaviours and withdrawing, as expected.

Analyses of the variance components of each model suggested that both individual and group factors are associated with behaviour in bullying situations. The interclass correlations (ICC), which measure the degree to which group members share common experiences, the outcome behaviours in the present studied ranged from 11.5 percent for defending and withdrawing behaviour, to 19-20 per cent for the pro-bullying behaviours. For the pro-bullying behaviour models, the predictors explained 10-13 per cent of the level one variance. Eight per cent of the variance for defending behaviour and only two per cent of the variance for withdrawing were explained by the predictors in the models. The predictors explained significantly more of the level two variance. For the pro-bullying models, the predictors explained 54-62 per cent of the level two variance. The predictors explained 33 per cent of the between group variance in withdrawing behaviour and 97 per cent of the between group variance in defending behaviour.

The independent variables included in the study had a relatively weak, although significant, association with the dependent variables. These results suggest that other predictors, not included in the present study, would have stronger

associations with behaviour in bullying situations and/ or that there are a multitude of factors that are associated with these behaviours.

Chapter Twelve: Discussion

The present study produced support for both hypotheses: 1) Both group and individual factors predict behaviour in bullying situations; and 2) Attitudes, group norms, and social dilemmas each have a unique contribution to predicting student behaviour in bullying situations. The discussion below will review findings from the present study, compare these findings to findings from the Salmivalli and Voeten study, and then propose interpretations of the findings, drawing on evidence from relevant literature. It is important to note that an important difference between the present study and the Finnish study, that might account for differences in various findings, is sample size. The Finnish study included 1,220 students, more than four times the number in the present study. Thus, had the present study included more students, it might have produced findings more in line with those from Salmivalli and Voeten's study. This chapter concludes with a discussion of the limitations of the study.

Group And Individual Factors Predict Behaviour In Bullying Situations

The interclass correlations (ICCs), which measure the proportion of the total variance in the outcome between groups, for the outcome behaviours in the present study ranged from 11.5 per cent for defending and withdrawing behaviours to 19-20 percent for the pro-bullying behaviours. These findings support the hypothesis that both individual and group factors are associated with behaviour in bullying situations. Additionally, while there are clear associations between context and behaviour for all of the behaviours measured, the pro-bullying behaviours were more closely associated with context than were withdrawing and defending.

Salmivalli and Voeten do not report on ICCs for their models, although variance was detected at both levels, suggesting that both individual and group factors predicted behaviour in bullying situations. As noted, in other studies of household groups using multilevel modelling, typical ICCs range from 0 to 30 per cent (Gulliford et al., 1999).

The Contribution Of Attitudes To Predicting Behaviour In Bullying Situations

As set forth by Hypothesis Two, results indicated that anti-bullying attitudes are predictors of behaviour in bullying situations. Additionally, as also set forth by Hypothesis Two, the coefficients suggest that as anti-bullying attitudes increased, pro-bullying ranks decreased and defending ranks increased. It should be noted that even those who scored low on anti-bullying attitudes ranked below the mean on pro-bullying behaviour and above the mean on defending behaviour, suggesting that having pro-bullying attitudes does not necessarily lead to strong bullying behaviour.

Anti-bullying attitudes did not appear to have a significant association with withdrawing behaviour. It was expected that anti-bullying attitudes would be

associated with withdrawing from bullying situations because students with these attitudes would be less likely to want to actively bully others.

Salmivalli and Voeten also found that anti-bullying attitudes was inversely related to pro-bullying behaviour and positively related to defending behaviour. However, unlike the present study, Salmivalli also found that anti-bullying attitudes were positively related to withdrawing behaviour, which is in line with the hypotheses for the present study. Also in contrast to the Finnish study, which found the relationships between behaviour in bullying situations and anti-bullying attitudes to be significant but relatively modest (significant coefficients ranged from .09 to .24, the latter just for boys in the fourth grade), the present study found stronger associations between behaviour and attitudes (significant coefficients ranged from .38 to .48).

Other research has shown that the link between attitudes and behaviour often depends on the strength of the attitude. Evidence suggests that strong attitudes can lead to selective information processing. The strength of an attitude can be measured in different ways, but in general, attitudes that result in multiple and coherent associations between the attitude object and prior experience are thought to be strong (Eagly and Chaiken, 1998).

People also often strive for behaviour-attitude consistency or infer attitudes from their own behaviour. Thus the causal direction between attitudes and behaviour is not always clear. Research in the 1960s and 1970s by Festinger, Carlsmith, and others, which eventually led to the dissonance theory, demonstrated that subjects in laboratory situations (both adults and children) change their attitudes when they were convinced to engage in behaviour that was contradictory to their current attitudes (Eagly and Chaiken, 1993). However, Huesmann and Guerra found that as children grow older they are less likely to base normative beliefs (i.e. beliefs about appropriateness of behaviour) on behaviour and more likely to base behaviour on beliefs (Huesmann and Guerra, 1997). This finding is consistent with those that show that strong attitudes have a greater influence on behaviour than do weak attitudes. Older children are more likely to have stronger attitudes than are younger children due to more experiences with attitude objects (Eagly and Chaiken, 1993).

Comparing the results regarding the link between attitudes and behaviour from the present study to those from the Finnish study raises two important questions: 1) Why did attitudes not predict withdrawing behaviour in the present study although there was a relationship in the Salmivalli and Voeten study? 2) Why were anti-bullying attitudes a stronger predictor of pro-bullying and defending behaviour in the present study than in the Finnish study? These issues are discussed below.

Why did attitudes not predict withdrawing behaviour in the present study although there was a relationship in the Salmivalli and Voeten study?

The two studies were conducted in different countries and in different types of schools. Participants in the present study were students, aged 12 to 16 years, from low-income families, living in a residential school in the United States, whereas participants in the Salmivalli and Voeten study were Finnish students, aged nine to

12 years, living with their own families. Although the authors do not report on the socio-economic status of their sample, Salmivalli and Voeten collected data from 16 schools in five cities in Finland and noted there were no significant socio-economic differences among the schools. These factors as well as other, unknown factors, may contribute to differences in cultural norms between the two samples, which in turn, may account for differences in relationships between attitudes and withdrawing behaviour. For example, the two samples might have different societal norms concerning withdrawing behaviour (which were not measured in either study) which in turn might lead students in the Finnish sample, who opposed bullying, to feel that withdrawing is an acceptable response in bullying situations, whereas students with anti-bullying attitudes in the present study might feel that defending is a more acceptable response.²⁷

Why were anti-bullying attitudes a stronger predictor of pro-bullying and defending behaviour in the present study than in the Finnish study?

The age difference between the two samples might account for the stronger association between attitudes and behaviour in the present study. Evidence from other research suggests that the attitude-behaviour link becomes stronger with age. As noted above, stronger attitudes appear to be more predictive of behaviour than weaker ones, and younger people are less likely to have strong attitudes as are older people (Eagly and Chaiken, 1998). However, the age differences between the two samples might not be great enough to account for the differences in the findings regarding the attitude-behaviour link. A study by Trafimow surveyed 313 children, aged eight-16 and found that correlations between both attitudes and subjective norms with behavioural intentions did not vary by age (Trafimow et al., 2002). As with other differences in the findings between the two studies, cultural differences or differences in sample size might also help to explain the difference in this finding.

The Contribution Of Norms To Predicting Behaviour In Bullying Situations

The present study produced evidence that anti-bullying and neutral norms are group factors associated with pro-bullying behaviour and defending behaviour and in the expected directions. However, because group factors explain much less of the overall variance than individual factors, the effect of anti-bullying norms is quite modest. Specifically, and consistent with Hypothesis Two, the effect of anti-bullying norms on pro-bullying behaviours was significant and in the expected direction: as anti-bullying norms increased, pro-bullying behaviour ranks decreased. The anti-bullying norms' coefficient for defending behaviour approached significance and was positive, as expected. Student homes that ranked higher on neutral norms tended to have students that ranked higher on pro-bullying behaviour and lower on defending. Additionally, like attitudes, norms did not appear to have a significant association with withdrawing behaviour. The present study found no significant interaction between either the norms variable or gender or grade.

²⁷ Investigation into the differences in cultural norms related to anti-social behaviour, bullying behaviour, and social behaviour in general between the U.S. and Finland and how these differences vary by age, race, region, institution, gender, etc. falls outside of the scope of this thesis.

As in the present study, Salmivalli and Voeten found that norms were associated with behaviour in bullying situations (particularly anti-bullying norms). In the Finnish study, anti-bullying norms were negatively associated with bullying and reinforcing behaviour, but only for fifth and sixth grade students, and positively associated with defending behaviour, but only for sixth grade students. Fourth grade students' behaviour was generally not associated with anti-bullying norms, although they were more likely to withdraw when anti-bullying norms were low than students in the other grades, whereas the present study found no significant relationship between norms and withdrawing behaviour. Additionally, coefficients for anti-bullying norms were larger in the Finnish study than in the present study.

Normative indifference (or what the present study refers to as “neutral norms,” i.e. students within a group tending to say that acting in a certain way in a bullying situation would have no particular social consequences) had variable relationships with behaviour in the Finnish study, depending on the grade and gender of subjects. Normative indifference was negatively related to assisting the bully for fifth grade girls and negatively related to defending for fifth and sixth grade girls. However, normative indifference was positively related to defending for sixth grade boys. All other coefficients for normative indifference were non-significant. The present study, by contrast, found more positive relationships between neutral norms and pro-bullying behaviour. Both studies did not find a significant relationship between neutral norms and withdrawing behaviour. Additionally, both studies found a negative relationship between neutral norms and defending behaviour (although Salmivalli and Voeten only found it in fifth and sixth grades). It is important to note that norms were measured in a somewhat different manner in the present study than in the Finnish study (see Methods chapter), and thus differences in the findings should not be over-interpreted.

A wide range of studies have provided evidence that social norms exist in children's groups and help to explain some child behaviours. As noted in the literature review, research evidence generally suggests that children tend to behave in ways that are deemed acceptable by others in their particular group. Behaviours related to aggression and social withdrawal appear to be particularly influenced by classroom norms, while pro-social behaviour does not appear to be as closely linked with norms (Chang, 2004, Stormshak et al., 1999). Furthermore, there is evidence that children do not simply imitate the behaviour of other group members, but instead adopt beliefs similar to proximal peers which, in turn, affect their behaviour (Henry et al., 2000).

There are relatively few studies that have looked at the association between group membership and bullying behaviour specifically. As Salmivalli notes in her 2010 review of research on bullying and the peer group, “Despite many descriptive studies on the attitudes, intentions, and social positions of children behaving in different ways in bullying incidents, the actual group-level processes potentiating bullying and maintaining it have not been much elaborated. Different modes of group influence have been suggested to be involved, but rarely put to rigorous empirical test (Salmivalli, 2010).”

Comparing the results of the present study regarding the link between norms and behaviour in bullying situations to those from the Finnish study raises an important question: Why were norms not as strong a predictor of behaviour in the present study as in the Finnish Study? (See the following for discussion on the differences between the two studies in terms of findings on interactions between grade/gender and norms.)

Why were norms not as strong a predictor of behaviour in the present study as in the Finnish Study?

It is not clear from the Finnish study report to what degree students within classrooms spend time with each other versus with students in other classes. Students at the residential school involved in the this study spend about 40 per cent of their waking hours with their housemates and 60 per cent of their waking hours with other students (at school and at other activities). It is therefore possible that these students spend more time with students outside of their groups than the students in the Finnish study did and thus are less influenced by their group mates than the Finnish students were. Additionally, because students in the present study attend a residential school that promotes a certain school identity, they might be most influenced by school-wide norms than children who attend day schools, who, by contrast might be more influenced by their immediate classmates. Cultural differences between the two samples also might account for the difference in findings concerning norms. Finally, a key difference between the two studies was that the present study included the measure of social dilemmas not included in the earlier study. Thus the social dilemmas measure might have measured an aspect of norms more precisely than did the norms instrument, thus partitioning the norms variation between these two predictors. Finally, as noted, the Finnish study did not measure norms items using a Likert scale as in the present study and instead used the optimal scaling procedure HOMALS because student answers to the norms questionnaire were qualitatively different categories. This difference in measurement procedures might also have contributed to different results.

The Contribution Of Social Dilemmas To Predicting Behaviour In Bullying Situations

The findings of the present study suggest that social dilemma dynamics help to predict behaviour in bullying situations. Moreover, unlike attitudes and norms, social dilemmas helped to predict withdrawing behaviour. Additionally and contrary to expectations, within group variation in reporting social dilemma conditions generally did not predict behaviour in bullying situations.

The number of students in a student home reporting all three social dilemma conditions related to either physical or relational bullying tended to have a positive relationship with pro-bullying behaviours and withdrawing, as expected. It should be noted that most of the coefficients for mean social dilemmas related to verbal bullying were not significant (with the exception of boys' defending behaviour). Additionally, several significant interactions indicate that the relationship between mean social dilemmas and behaviour sometimes varied by gender or grade.

Salmivalli and Voeten did not measure social dilemmas in their study, nor have any other studies examined the relationship between social dilemmas and behaviour in bullying situations. However the findings regarding social dilemmas in the present study raise some important questions: 1) Why were social dilemmas only predictive of behaviour at the group level? 2) Why were social dilemmas better at predicting withdrawing behaviour than attitudes and norms were? 3) Why were social dilemmas related to verbal bullying generally not related to behaviour in bullying situations? 4) Why did some findings for mean social dilemmas only hold for some grades or for one gender? These issues are addressed below.

Why are social dilemmas only predictive at group level?

Goal-Expectation theory predicts that an individual, under social dilemma conditions, looks at the situation and understands that he or she is contributing to the problem, but believes that a unilateral effort will have no impact on the situation; only a group effort will work. Moreover, because he or she has low expectations that enough other people will act in the interest of the group, he or she concludes that it is pointless for him/her to act in the interest of the group. The individual's low expectations of others could result from a number of factors such as: a) he or she thinks others are generally selfish, b) he or she thinks others do not understand how their actions affect the larger community, c) he or she thinks others are making the same assessment of the situation and concluding that it is futile to act in the interests of the group.

Interestingly, in the present study, the social dilemma predictors at the individual level (whether a student agreed that the three social dilemma conditions existed in his or her home) did not predict behaviour well. However, students in homes in which more students reported social dilemma conditions—regardless of their own assessment of social dilemma conditions—scored higher on pro-bullying behaviours and withdrawing and lower on defending behaviour. One would expect, based on the goal-expectation theory, that both individuals' reporting of social dilemma conditions *and* average group reporting would be associated with behaviour in bullying situations. As noted above, a singular group member comes to the conclusion that unilateral action is pointless and group action, although probably more effective, is unlikely, and thus the individual either joins in the bullying or withdraws and does not defend the victim. Part of the individual's assessment that group action is unlikely might be his or her perception that others are making the same assessment of the situation that he or she is and coming to the same conclusion. Therefore it might be that the more students who report social dilemma conditions in a home, the more likely any individual in that home would avoid defending victims and even join in the bullying.

The present study found that perceiving the situation as hopeless (because of the futility of unilateral action and the improbability of group action) *does not* predict behaviour in bullying situations in the present sample. However, being around students who perceive the situation this way *does* affect behaviour. Several different interpretations of this finding are discussed below.

One possible interpretation is that the more students who report social dilemma conditions, the more likely it is that those conditions actually exist. As

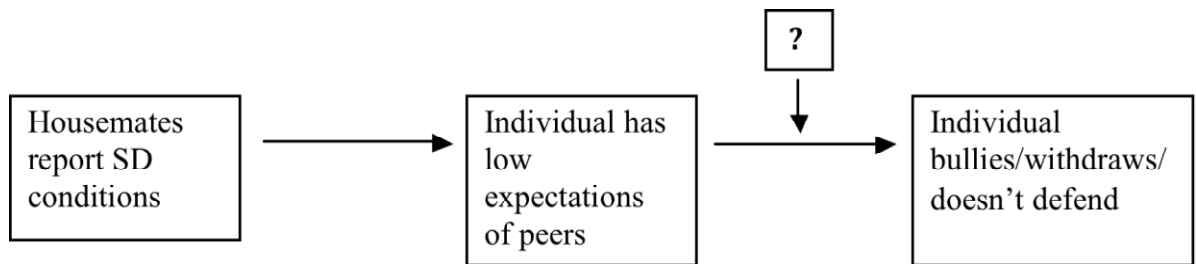
discussed, to date, the most common method used in social dilemma research has been laboratory experiments in which researchers develop “games” that include social dilemma conditions and then observe how subjects behave under those situations (Pellegrini, 2002, Johnson and Johnson, 2001, Piliavin, 2001). Additionally, the relatively few field studies that have been conducted usually start with a situation in which social dilemma conditions naturally exist and then asks respondents how they behaved and why (Fujii et al., 2001, Ohnuma et al., 2005, Tyler and DeGoey, 1995). The present study relied on students’ perceptions to establish whether social dilemma conditions exist within various student homes. Thus it is possible that, even though an individual within a home does not perceive the conditions, he or she is in a home that has the conditions, and he or she is acting accordingly, albeit not consciously.

Another interpretation came from looking at particular student homes: those that had low and high mean social dilemma scores related to physical and relational bullying (the two types that appear to be affected by social dilemmas). Table Eleven shows characteristics of students in six student homes: two homes that had low mean social dilemma scores related to both physical and relational bullying (Student Homes One and Two), two that had high mean social dilemma scores related to physical bullying (Student Homes Three and Four) and two that had high mean social dilemma scores related to relational bullying (Student Homes Five and Six). Although the “low” and “high” homes appear to be fairly similar to each other in terms of both independent and dependent variables (or no patterns are apparent), a few characteristics appear to distinguish the “low” from the “high” student homes. The “low” homes have a notably larger percentage of students who reported strong anti-bullying attitudes and strong anti-bullying norms than the “high” homes.²⁸ Additionally, the “low” homes have a much lower percentage of students who reported social dilemma condition C (low expectations regarding others’ cooperation in defending victims) than the “high” homes.

This evidence suggests a possible causal chain (see Figure J below.)

²⁸ Note: norms are based on self-report in this table rather than mean scores for each student home. Thus the table shows the percentage of children within the home who reported that they perceived strong anti-bullying norms in their homes.

Figure J: Relationship Between Housemates' Reports Of Social Dilemma Conditions And Individual Behaviour In A Bullying Situation



As represented in the figure above, the link between the first and second boxes might be interpreted as individuals sensing (from cues or past experience) that their peers, who are reporting social dilemma conditions, are not likely to defend victims. The link between the second and third boxes is more difficult to determine. According to the goal-expectation theory, one would expect that individuals with low expectations regarding cooperation from other group members *along with a belief that only group action would be effective* would be more likely to “defect” or “not cooperate” (which in the case of bullying means withdraw or join in the bullying.) However, if this were the case, one would see a positive and significant relationship between individual reports of social dilemma conditions and behaviour in bullying situations—a finding the current study did not produce. The link, instead, might be that individuals’ low expectations of peers lead them to conclude that such behaviour is the norm (a norm not measured by the instrument used to measure norms in the study since both the norms instrument and the social dilemmas instrument explained unique variance²⁹). The perceived norm, in turn, leads them to behave “non-cooperatively” and perhaps to adjust their attitudes accordingly. Past research suggests that children in this age range are aware of peer group norms regarding certain behaviours and tend to act in accordance with those norms. Henry found that injunctive norms (i.e. how approving of aggression others in the classroom were) were associated with behaviour among the elementary school students in his sample but descriptive norms (i.e. how aggressively others in the classroom behaved) were not. This finding suggests that students in this age range are sensitive to the perceptions and attitudes of their peers (Henry et al., 2000). However, as noted, Kerr’s review of research on social dilemmas shows a strong relationship between expectations and behaviour, even when normative and conformity pressures are weak, suggesting that the other possible influences--including strategic calculation--are sufficient to understand the association between expectations and behaviour (Van Lange et al., 1992, Kerr, 1989).

As noted, no other studies have looked at the relationship between social dilemmas and behaviour in bullying situations. Lab and field studies show that social dilemma conditions do affect subjects’ (usually adults’) behaviour (Rutte and Wilke, 1992, Garvill, 1999, Smithson and Foddy, 1999, Wilke and Braspenning,

²⁹ The norms measure used in the present study measured the consequences of pro- and anti-bullying behaviour (i.e. laughing when someone is victimised, telling an adult when someone is being bullied, etc.) Expectations about others’ actions might not be dependent on these consequences. For example, one might expect others to *not* defend a victim even if the consequences of defending are not minimal or non-existent. It is possible that such a student feels that his or her housemates are not concerned about victims or he or she prefers to refrain from involving him/herself in situations that do not directly concern him/her.

1989). As also noted, the present study is unique in measuring the perception of social dilemmas by subjects (rather than studying subjects in a situation which was constructed or chosen for its social dilemma properties.) Thus it is not possible to look to other studies to elucidate the finding that group, but not individual, reports of social dilemma conditions were associated with behaviour.

Table Eleven: Comparison Of Sample Student Homes With Low And High Numbers Of Students Reporting Social Dilemma (SD) Conditions

	Condition	Student Home 1	Student Home 2	Student Home 3	Student Home 4	Student Home 5	Student Home 6
Mean SD: Physical Bullying ³⁰		Low	Low	High	High		
Mean SD: Relational Bullying		Low	Low			High	High
Gender		Female	Male	Female	Male	Female	Male
% Scoring > 1 on pro-bullying		0.0	28.6	42.9	22.2	0.0	16.7
% Scoring >1 on withdrawing		16.7	28.6	42.9	44.4	0.0	0.0
% Scoring >1 on defending		50.0	28.6	0.0	22.2	14.3	16.7
% Scoring > 3 on anti-bullying attitudes		66.7	42.9	14.3	33.3	28.6	16.7
% Scoring > 75 on anti-bullying norms		83.3	57.1	28.6	22.2	0.0	16.7
% Scoring > 13 on neutral norms		83.3	57.1	57.1	44.4	14.3	33.3
% That Met SD Conditions Related to Verbal Bullying ³¹	A	50.0	42.9	42.9	66.7	57.1	16.7
	B	50.0	57.1	57.1	44.4	57.1	66.7
	C	0.0	14.3	42.9	44.4	57.1	50.0
	D	100.0	85.7	85.7	77.8	85.7	100.0
% That Met	A	33.3	42.9	57.1	77.8	42.9	33.3

³⁰ “Low” means that no students reported all three SD conditions and “high” means that more than 25% reported all three social dilemma conditions.

³¹ Meaning of conditions:

- A: Unilateral action seen as ineffective AND/OR dangerous
- B: Group efforts seen as more effective AND/OR more safe than unilateral ones
- C: Low expectations regarding others’ cooperation
- D: Others seen as not likely to act unilaterally, more likely to act in group

	Condition	Student Home 1	Student Home 2	Student Home 3	Student Home 4	Student Home 5	Student Home 6
SD Conditions Related to Physical Bullying	B	50.0	42.9	42.9	44.4	42.9	33.3
	C	0.0	0.0	57.1	55.6	28.6	33.3
	D	66.7	85.7	71.4	44.4	57.1	83.3
% That Met SD Conditions Related to Relational Bullying	A	66.7	42.9	71.4	77.8	71.4	50.0
	B	50.0	57.1	28.6	33.3	71.4	66.7
	C	16.7	0.0	42.9	33.3	42.9	50.0
	D	100.0	71.4	57.1	77.8	71.4	83.3

Why were social dilemmas better at predicting withdrawing behaviour than were attitudes and norms?

As discussed above, it was not students' own perceptions of social dilemmas that predicted withdrawing behaviour, but their housemates' perceptions. As also discussed, it appears that homes with more students' perceiving social dilemma conditions are characterised, in particular, by a larger number of students reporting that they do not expect their housemates to defend a victim in a bullying situation. If students in such homes expect their peers to withdraw from bullying rather than defend a victim, then these students might be more likely to act in kind to conform with a withdrawing norm.

Why were social dilemmas related to verbal bullying generally not related to behaviour in bullying situations?

Physical and relational bullying, which were less common according to student reports, might appear more difficult to handle and more dangerous than verbal bullying to students. Because almost all of the students reported witnessing verbal bullying (96.2 per cent), bullying situations involving verbal abuse might have less salience for students and thus less impact on their behaviour.

Why did mean social dilemma related to physical bullying not predict withdrawing behaviour for boys, while it strongly predicted withdrawing behaviour for girls?

It might be more socially acceptable for girls to withdraw when physical bullying is occurring than it is for boys. Thus, when mean social dilemmas related to physical bullying are high, they may be more likely to withdraw whereas boys in the same situation might feel more pressure to join in the bullying to demonstrate their power or aggressiveness. In a detailed observation of girls and boys attending a summer camp, McGuffey and Rich describe how boys were consistently chastised when they transgressed boundaries of masculinity. These boundaries were set by larger societal norms (the importance of being assertive or aggressive) as well as norms established by high status male peers. Such findings suggest why withdrawing might be a more viable alternative for girls facing social dilemmas than for boys in similar situations. Boys might more safely secure their position in the social hierarchy or prevent being bullied themselves by actively joining in bullying

rather than withdrawing (McGuffey and Rich, 1999). Similarly, Alder et al. found, through their participant observation with pre-adolescent children in and outside elementary schools, that boys achieved high status when they displayed active characteristics such as athletic ability, coolness, toughness, social skills, and success in cross-gender relationships. Whereas girls' status was more associated with passive traits such as their parents' socio-economic status and their own physical appearance, again suggesting that a more passive response such as withdrawing might more negatively affect a boy's status than a girl's (Adler et al., 1992).

Why did mean social dilemmas related to verbal bullying not predict girls' defending behaviour, while it appeared to have a strong relationship with boys' defending behaviour?

Again, the answer to this question might relate to what is more socially acceptable for girls versus boys. The literature shows that defending behaviour, in general, is more common among girls than it is among boys (O'Connell et al., 1999, Rigby and Slee, 1991, Salmivalli et al., 1996). Thus it may be easier for girls to defend victims without negative social consequences than it is for boys. When mean social dilemmas related to verbal bullying is high, boys might have quite low expectations that their peers will support defending behaviour and might also fear that their housemates would bully anyone who tried to defend a victim, leading them to avoid defending behaviour. By contrast, the very common behaviour of verbal bullying might be the least threatening to girls and thus not interfere with an inclination towards defending victims.

Why were sixth graders' defending behaviour, on average, not strongly associated with mean social dilemmas related to relational bullying while eighth grade students' defending behaviour was?

Findings from earlier research provide reason to expect that social dilemma conditions would have a greater affect on older children than on younger children. Pruitt cites evidence that short-range thinking leads to defection and retaliation in social dilemmas while long-range thinking, often won through experience, leads to cooperation (Pruitt, 1998). Similarly, Björkqvist et al. notes that around the ages of 11–12, children learn to see situations from others' perspectives and can achieve metacognitions such as: "I know that you know that I know". (Björkqvist et al., 2000) Thus eighth grade students might be more sophisticated at "reading" their housemates, predicting their likely actions, and acting accordingly. Such sophistication might be particularly important in a situation that involves relational bullying because it is often less visible than verbal or physical bullying. Thus older students in homes with high average scores on social dilemmas related to relational bullying might be more affected by these conditions than younger students in similar homes. Moreover, older students might only be willing to defend a victim—the riskiest of the behaviour options—if social dilemma conditions are absent.

The Contribution Of Grade And Gender To Predicting Behaviour In Bullying Situations

Although gender and grade were not predictors of central interest in the present study, they were in the Salmivalli and Voeten study. Thus the findings from both studies are reviewed and compared. The results of the present study suggest that grade, in general, was not an important factor in predicting behaviour in bullying situations. Gender, however, appeared somewhat important. In general, boys' homes ranked higher than girls' homes on pro-bullying behaviours, but they were fairly similar in rank on defending and withdrawing behaviours. Additionally, while neither attitudes nor norms appeared to vary by grade or gender, several significant interactions between social dilemmas and grade and gender were detected. As discussed above, these interactions might be related to differences in what is considered socially acceptable behaviour in boys versus girls and to differences in the social acumen of younger versus older children.

Salmivalli and Voeten also found gender to be more important than grade in predicting behaviour in bullying situations. As expected, and reflecting findings from the present study as well as other studies, boys were more involved in pro-bullying behaviour than girls (Camodeca, 2002, Salmivalli et al., 1996, Duncan, 1999, Siann and Callaghan, 1994, Nansel et al., 2001, Salmivalli et al., 1998, Salmivalli, 2001). However, they also found, as they expected, girls to rank higher on defending behaviour, a finding not replicated in the present study. Additionally, the Finnish study found generally larger effect sizes for gender than the present study did (with the exception of the withdrawing model.)

Another difference between the two studies was that Salmivalli and Voeten found that the associations between attitudes and norms and behaviour sometimes varied by gender and grade. Among fourth-grade girls in the Finnish study, no statistically significant effect of anti-bullying attitudes on pro-bullying behaviours was found. By contrast, among fourth grade boys in the sample, anti-bullying attitudes were negatively associated with these behaviours. Additionally, among fifth and sixth graders, the effects of attitudes on pro-bullying behaviours were the same and statistically significant for both girls and boys.

Several differences among grades and gender in relation to norms were also detected in the Finnish study. The relationship between norms and reinforcing behaviour was unexpectedly stronger for fifth grade boys compared to fifth grade girls. In grade six, anti-bullying norms were associated with defending the victim, but only for girls. Additionally, in classrooms with relatively low anti-bullying norms, girls were more inclined to withdraw from bullying situations than were boys.

In the Finnish study, the level one and level two components were in the models separately for each grade level. In addition, Salmivalli and Voeten let the student-level and classroom-level variances be different for boys and girls. As a result, the models had variance components for a three (grade) by two (gender) classification of the students. The present study, because it did not have hypotheses about grade and gender, did not conduct the analyses in this manner. Additionally, grade and gender (considering either main effects or interactions with attitudes and

norms) appeared to be less important predictors in the present study than in the Finnish study. Salmivalli and Voeten found that, as they predicted, between-classroom variance in bullying-related behaviours was relatively larger for girls than for boys, indicating stronger contextual influences for girls. They also found that the unexplained variance at the group level was larger for girls than for boys, suggesting that whatever the unidentified classroom factor(s) was, it may have a greater effect on girls.

Comparing the results of the present study regarding the link between gender or grade and behaviour in bullying situations to those from the Finnish study raises several important questions: 1) Why did grade appear to be a less important predictor of behaviour than gender in both studies? 2) Why did girls in the present study not rank higher than boys on defending behaviour as in the Finnish study as well as other studies? And 3) Why did Salmivalli and Voeten find interactions between norms and attitudes with grade and gender that the present study did not? These issues are discussed below.

Why did grade appear to be a less important predictor of behaviour than gender in both studies?

Other studies have shown a significant relationship between age and bullying/aggression. A wide range of studies show that aggressive behaviours (including bullying) become more acceptable to children as they grow into early adolescence (Zeller et al., 2003, Pellegrini et al., 1999, Pellegrini and Long, 2004, Huesmann and Guerra, 1997). Pellegrini suggests that bullies may be viewed less negatively during adolescence because it is a time when young people challenge adult roles and values as they search for their own identities (Pellegrini and Long, 2004). Additionally, it is important to note that there is no evidence that decreases in victimisation over time (usually starting in middle school and declining through high school) result from decreases in bullying. Smith and Madsen reviewed research in this area and found only slight and/or non-monotonic age changes in reports of bullying others. Decreases in self-reports of victimisation may be due to bullies focusing on fewer victims (Smith and Madsen, 1999). The relative unimportance of age in the Finnish and present studies, in contrast to other studies, might be due to the small range of ages included in the samples.

Why did girls in the present study not rank higher than boys on defending behaviour as in the Salmivalli study as well as other studies?

A wide range of studies have produced evidence that girls are more likely to defend victims of bullying than are boys. Rigby and Slee suggest that girls may defend victims more often due to a greater capacity for empathy (Rigby and Slee, 1991). Salmivalli et al. explain their 1996 findings in terms of societal expectations that girls serve as caretakers (Salmivalli et al., 1996). In the present study, groups were single-sex student homes and subjects were thus only reporting on others of their same gender. Perhaps because of this situation, students rated their housemates' behaviour relative to other housemates' behaviour rather than relative to those outside the student home, including students of the opposite gender, resulting in similar assessments for boys and girls.

Why did Salmivalli find interactions between norms/attitudes and grade/gender that the present study did not?

Past research provides reason to expect interactions between norms and grade. A body of research suggests that as children move into middle childhood and beyond, they become more sensitive to and affected by the social norms of their peer groups (Ruble and Goodnow, 1998, Zeller et al., 2003). In the Salmivalli and Voeten study, fourth graders' behaviour appeared to be, in general, not as affected by attitudes (particularly girls) or norms (particularly boys). Additionally, as children age, their attitudes tend to become more solidified (Eagly and Chaiken, 1993). Thus the older age range of the present study compared to the Finnish study would suggest more consistent relationships between attitudes and norms and behaviour across grades. Additionally, the current study's residential setting, in which students spend more time with one another than students who attend day schools, might lead to more consistent norms across genders.

Limitations

Although the study produced interesting findings that warrant further investigation, it is important to note its limitations. The cross-sectional design does not allow an assessment of the causal direction between the predictors and behaviour. Thus although a hypothesis was that attitudes, norms, and social dilemmas lead to certain behaviours in bullying situations, it could be that the behaviours lead to the attitudes, norms, and/or social dilemmas. For example, as discussed previously, sometimes individuals infer their attitudes from their behaviour. Additionally, the statistically significant associations that were found between the predictor variables and the outcome variables could result from both predictors and outcomes being associated with a third, unmeasured, variable.

The sample size could be another limitation of the study. The present study involved 292 students living in 37 student homes. Although a larger number of students and student homes would have improved the accuracy of the findings, the size was probably large enough to produce accurate estimates of the effect of the predictors on the outcome variables. Maas and Hox conducted a simulation study to determine the influence of different sample sizes on the accuracy of regression coefficients and variances in multilevel modelling. Three conditions were varied in the simulation: 1) number of groups (NG = 30, 50, and 100), 2) group size (GS = 5, 30, and 50), and 3) interclass correlation (ICC = .1, .2, and .3). They found that the point estimates of both the fixed regression coefficients and the random variance components were all estimated without bias, in all of the simulated conditions. The standard errors of the fixed regression coefficients were also estimated accurately (Maas and Hox, 2004).³²

³² Only the standard errors of the second-level variances are estimated too small when the number of groups is substantially lower than 100. With 30 groups, the standard errors are estimated to be about 15 per cent too small. However, it is important to note that most authors do not rely on or report the standard errors of second level variances.

Missing data might also limit the reliability of the findings of the present study. The response rate was 75 per cent of the total middle school population. The lack of participation by 25 per cent of the population primarily was due to parents/guardians refusing or not responding to the request for consent. Only five per cent of the students with parental permission who were invited refused to participate. Additionally, 34.9 per cent of subjects had missing data on at least one predictor, and 10 (out of 37) student homes had 50 per cent or more students (who participated in the study) with missing data on at least one predictor variable. Missing data points were replaced with imputed scale or sample means. Mean substitution produces internally consistent sets of results. However, it also artificially decreases the variation of scores, and this decrease is proportional to the amount of missing data. To assess the possible effect of missing data, dummy variables were created as controls where means were imputed for missing data. Only a small number of the coefficients for the missing data dummy variables were significant, suggesting that those subjects with missing data did not significantly differ from those without missing data. Additionally, final models for three outcomes (composite pro-bullying, withdrawing, and defending) were run with cases with missing data deleted (i.e. list-wise deletion). This procedure eliminated approximately one third of the cases (n=190). However, even with this much-reduced sample, the coefficients were generally similar in size and direction to those produced with the whole sample (which included imputed means and dummy variable controls) suggesting that the missing data did not have a substantial effect on the results (See “Full Coefficient Table” in appendices.) It is important to note that, although the diagnostic tests suggest that missing data did not affect results, there is no way to know how students would have responded to items that they skipped, thus results should be interpreted with caution.

The instruments employed to measure the variables of interest also had potential limitations. As noted in the methods chapter, the Participant Role Questionnaire (PRQ) generally shows good psychometric properties. However, some studies have found that, although the bully, assistant, and reinforcer roles appear conceptually distinct, the subscales used to assess these three pro-bullying roles might be measuring the same underlying concept. Thus a conservative approach to interpretation of finding would focus only on the “composite pro-bullying role,” and this report has tended to emphasise the composite role (rather than bullying, assisting, and reinforcing roles) in the results and interpretation. Additionally, although items related to outsider behaviour loaded most heavily on a separate factor than the other roles, the outsider items also loaded moderately heavily on the factor related to defender behaviour. It appears that a fair number of students who displayed defending behaviours, according to their housemates, also displayed outsider behaviours. However, the two roles were dealt with separately in the analyses, due to the results of the factor analysis and the conceptual difference between the two roles. The relationships between the predictors and these two roles might have been affected by the lower distinctiveness of these roles compared to the pro-bullying role.

The current study did not examine the relationship between the predictors (attitudes, norms, and social dilemmas) and particular types of bullying (physical, verbal, or relational). However, social dilemmas were measured in the context of the three types of bullying since it was assumed that students’ reporting of the

conditions would depend on the type of bullying under consideration. This approach might have limited the clarity of the findings because there is reason to believe that attitudes and norms might also vary depending on the type of bullying under consideration. As Salmivalli and Voeten note in their article, attitudes and norms might differ with regard to direct versus indirect or relational bullying. They cite research by Crick and Grotpeter, which provided evidence that boys tend to be more overtly aggressive (particularly physically) while girls tend to be more relationally aggressive (Crick and Grotpeter, 1995). Other studies have produced similar findings (Björkqvist et al., 1992, Xie et al., 2002). Moreover, research by Werner and Crick suggests that girls' relational aggression is more influenced by their friends' relational aggression than boys' relational aggression and, conversely, that boys' physical aggression is more influenced by their friends' physical aggression than girls'. The authors suggest that girls might form alliances through relational aggression that are more important to their social standing than they are for boys (Werner and Crick, 2004). The current study addressed the relationship between norms and attitudes and different types of bullying indirectly by looking at possible interactions with gender, since past research suggests that gender moderates the relationship between these types of predictors and behaviour. However, future studies could provide a clearer understanding of the relationship between these predictors and behaviour if behaviour roles related to specific types of bullying were considered as well as social dilemmas, attitudes, and norms.

Another limitation could be the way social dilemmas were measured. As noted above, the study relied on students' perception of the conditions of a social dilemma because there was no way to clearly establish the existence of those conditions as one might in situations in which the costs and benefits of acting selfishly and the costs and benefits of acting cooperatively can be objectively demonstrated as in laboratory studies using games. However, relying on perceptions may be problematic with sixth-eighth grade students, who might not be socially sophisticated enough to understand the costs and benefits of unilateral versus multilateral action. Past research suggests children in middle childhood are beginning to focus more on their peers and their peers' perspectives, the consequences of different types of interactions with peers, and fitting into a peer structure. In his review of childhood social development, Ruble notes that interest in strategic aspects of relationships appears to emerge after early elementary school years (Ruble and Goodnow, 1998). Despite such evidence, middle school students might not have enough social acumen to fully understand or perceive the conditions of a social dilemma. Social dilemmas might also have been measured more accurately had more items related to each social dilemma condition been included in the survey instrument. In the present study, there were only one-two items per condition, which did not allow for a very rigorous testing of reliability. Moreover, social dilemmas were treated as a categorical variable (i.e. social dilemma conditions either existed or did not exist according to student reports). However, a continuous variable might have provided a more subtle understanding of how such conditions, as they grow stronger, affect individual and group behaviour.

Studies, which employ different means of assessing social dilemmas, might help to elucidate the relationship between social dilemmas and behaviour in bullying situations. For example, a future study might employ group or individual interviews, which provide more nuanced data than surveys do, to establish the existence of

social dilemmas. However, such an approach might compromise reliability because interviews might not be conducted consistently across individuals or groups. Another approach might involve presenting children with hypothetical social dilemma scenarios and asking them if similar dynamics exist within their student home or classroom. Additionally, testing an intervention programme, designed to address social dilemmas, would further understanding of the role of social dilemmas in bullying. Such an intervention, along with other implications to this research, are discussed in the next and final section of the thesis.

Summary

The present study, like the Salmivalli and Voeten study, found that anti-bullying attitudes was inversely related to pro-bullying behaviour and positively related to defending behaviour. However, unlike the present study, the Finnish study also found that anti-bullying attitudes were positively related to withdrawing behaviour, which is in line with the hypotheses for the present study. Differences in cultural norms between the two samples may account for differences in relationships between attitudes and withdrawing behaviour.

As in the present study, Salmivalli and Voeten found that norms were associated with behaviour in bullying situations. However, unlike the Finnish study, the present study found no significant interactions between norms and grade. A body of research suggests that as children move into middle childhood and beyond, they become more sensitive to and affected by the social norms of their peer groups. The older age range of the present study compared to the Finnish study would suggest more consistent relationships between norms and behaviour across grades.

Salmivalli and Voeten did not measure social dilemmas in their study, nor have any other previous studies examined the relationship between social dilemmas and behaviour in bullying situations. The findings of the present study suggest that social dilemma dynamics help to predict behaviour in bullying situations. Moreover, unlike attitudes and norms, social dilemmas helped to predict withdrawing behaviour. Additionally and contrary to expectations, group variation in reporting social dilemma conditions generally did not predict behaviour in bullying situations. In other words, the social dilemma predictors at the individual level (whether a student agreed that the three social dilemma conditions existed in his/her home) did not predict behaviour well. However, students in homes in which more students reported social dilemma conditions—regardless of their own assessment of social dilemma conditions—scored higher on pro-bullying behaviours and withdrawing and lower on defending behaviour. One would expect, based on the Goal/Expectation Theory, that both individuals' reporting of social dilemma conditions, *and* average group reporting, would be associated with behaviour in bullying situations. One possible interpretation is that the more students who report social dilemma conditions, the more likely it is that those conditions actually exist and affect behaviour of individuals, even if some individuals don't perceive the conditions. Another interpretation is that the mean social dilemmas variable is capturing an aspect of social norms not measured by the social norms instrument.

Although the study produced interesting findings that warrant further investigation, it is important to note its limitations. The cross-sectional design does not allow an assessment of the causal direction between the predictors and behaviour. The current study also did not examine the relationship between the predictors (attitudes, norms, and social dilemma) and particular types of bullying (physical, verbal, or relational). However, social dilemmas were measured in the context of the three types of bullying since it was assumed that students' reporting of the conditions would depend on the type of bullying under consideration. This approach might have limited the clarity of the findings because there is reason to believe that attitudes and norms also might vary depending on the type of bullying under consideration. Another limitation could be the way social dilemmas were measured. As noted above, the study relied on students' perception of the conditions of a social dilemma because there was no way to clearly establish the existence of those conditions as one might in situations in which the costs and benefits of acting selfishly and the costs and benefits of acting cooperatively can be objectively demonstrated as in laboratory studies using games. However, relying on perceptions may be problematic with sixth to eighth grade students, who might not be socially sophisticated enough to understand the costs and benefits of unilateral versus multilateral action.

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This part of the thesis provided a detailed description of the study on the relation of social dilemmas to behaviour in bullying situations, including its methodology, results, discussion of the findings, and its limitations. The study provided support for one of the four basic ideas introduced at the outset of the thesis: immediate group context can have a significant effect on behaviour. The study looked at two aspects of group context—social norms and social dilemmas—and their relation to various behaviours in bullying situations. As discussed, this idea, along with the other propositions about the neglect and importance of understanding the anti-social behaviour of “good” people, provide the broad context for the study. The thesis concludes with a discussion, presented in the subsequent chapters, of its implications for future research and practice concerned with reducing anti-social behaviour among children.

Part Four: Contributions And Implications

Inquiry and practice concerned with anti-social behaviour has focused too often on individual people—particularly “bad” people. This thesis argues for a broader view, a view that includes not only chronic offenders but also “good” people who sometimes behave anti-socially. In essence, this thesis calls for more of a public health approach. This approach does not preclude the medical model focused on “curing” individuals, but it brings a stronger emphasis to prevention and the contexts that promote anti-social behaviour among both high- and low-risk individuals.

The call for a public health perspective is not new. Researchers and advocates concerned with criminal behaviour have made this appeal since the 1980s. Additionally, such prominent researchers as Michael Rutter and David Farrington have called for more attention to context in examinations of anti-social behaviour, as noted in Chapter One. Moreover, those investigating non-criminal anti-social behaviour, such as bullying, have recently begun to more strongly emphasise the role of social groups in fostering bullying behaviour. Rather than focusing solely on the trajectories of bullies and victims or the relations between the two, researchers are now looking at the role of bystanders and school culture in bullying. However, the lack of a broader focus historically may account for the limited progress in bullying interventions and violence interventions in general.

The thesis concludes with a discussion of how the study on social dilemmas and behaviour in bullying situations contributes to a broadening of perspectives on anti-social behaviour. The final chapter then suggests future research that might be conducted and interventions that might be tested which take into consideration the impact of social contexts on behaviour.

Chapter Thirteen: Contributions Of The Study

The study on social dilemmas and behaviour in bullying situations helped to broaden the perspective on anti-social behaviour in a number of ways. Most basically, it provided further evidence that both individual *and* group factors contribute to pro- and anti-bullying behaviour. The study also contributed to the limited literature on real life social dilemmas. Additionally, it furthered understanding of the anti-social behaviour of “good” people and, more specifically, provided some support for the models of anti- and pro-social behaviour proposed at the outset of the thesis. Each of these contributions is discussed below.

Both Individual And Group Factors Contribute To Behaviour In Bullying Situations

The study provided additional evidence that both individual and group factors are associated with behaviour in bullying among children. This finding reflects the conclusion of a 2003 article that reviewed anti-bullying programmes and their effectiveness. Based on available research, the authors recommended interventions that take a comprehensive focus that includes not only attention to individual characteristics, like attitudes, but also group characteristics, like norms (Limber, 2003). The study also replicated Salmivalli and Voeten’s findings that both attitudes and norms contribute to behaviour in bullying situations, suggesting the importance of focusing on these particular factors in anti-bullying programmes.

The current study also furthered inquiry into group factors related to bullying. Past research in this area has focused on norms as the key group factor that might affect bullying. The current study examined another group factor: the role of social dilemmas in bullying. Social dilemmas were examined based on children’s descriptions of why they bully and why they do not defend victims (primarily from ethnographic studies) (Owens et al., 2000, Adler and Adler, 1995, Bishop et al., 2004, Rigby, 2002). Evidence from the current study suggests that social dilemma dynamics could be at play in bullying situations among children in middle childhood.

Literature On Real-Life Social Dilemmas

The present study also contributed to the literature on real-life social dilemmas. Social dilemma research has been criticised for relying on computer simulations and laboratory experiments, in which real or virtual subjects play games that present dilemmas. Social dilemma field studies are becoming more popular and, by replicating results from laboratory studies, increasing the ecological validity of social dilemma findings (Smithson and Foddy, 1999). Most field studies look at behaviour within a naturally occurring social dilemma (rather than look at how behaviour varies depending on whether a social dilemma exists or is perceived to exist.) Studies have found that expectations regarding others’ actions in naturally occurring social dilemmas have a significant impact on behaviour (Garvill, 1999, Tyler and DeGoey, 1995). Unlike past field studies that began with a situation in

which social dilemma conditions could be demonstrated to exist and then collected data on how people behaved and why, this study broke new ground in using individual reports to establish whether, in the eyes of group members, social dilemma conditions exist.

Understanding Of The Anti-social Behaviour Of “Good” People

Finally, the study furthers research on the anti-social behaviour of “good” people. The study produced evidence that even students who hold anti-bullying attitudes do not necessarily defend victims or refrain from bullying themselves. It appears that individual subjects’ behaviours were also influenced by the number of their housemates reporting social dilemma conditions. When they lived in homes where more students were reporting these conditions, they were more likely to withdraw from bullying situations or bully other students despite their own attitudes about bullying. The findings that anti-bullying attitudes alone were not sufficient to prevent withdrawing or pro-bullying behaviour and that the pro-bullying behaviours were more closely associated with context than were withdrawing and defending suggest the vulnerability of “good” people to social conditions that promote bad behaviour, one of the ideas presented early in this thesis.

Further evidence in support of all of the four basic ideas presented in the introduction would, together, provide a strong argument for much greater investment in policies and programmes that work to foster pro-social behaviour and prevent anti-social behaviour among “good” people. Such policies and programmes might aim to engineer social settings, such as schools and playgrounds, in ways that allow young people to fulfil common human desires (such as to protect oneself from harm or criticism, to garner acceptance or praise from leaders and peers in a group, and to empower oneself) in pro-social ways and prevent social dynamics, like social dilemmas, that can lead to anti-social behaviour of group members. Chapter fourteen will examine both the research base needed and possible interventions that might be tested to provide further support for the four ideas.

Evidence in Support of Models

The study also produced evidence that fits the model for the prediction of anti-social behaviour presented in Chapter Four. Specifically, the study suggests that those with “low anti-social potential” presented with the “strong situation” of a student home in which a sufficient number of housemates report social dilemma conditions, will be more likely to behave anti-socially (i.e. withdraw from or support bullying) than those with “low anti-social potential” in “weak situations” (i.e. those in which few housemates report social dilemma conditions). Because the large majority of subjects held anti-bullying attitudes, the study does not provide sufficient evidence to support predictions of the behaviour of those with “high anti-social potential”. Moreover, attitudes were the only variable in the study that might be used to assess “anti-social potential”; social dilemmas were the only “strong situation” examined; and the study did not examine the link between present and future behaviour. Thus further research is needed to substantiate and refine both the model for the prediction of pro-social and the model predicting anti-social

behaviour. Chapter Fourteen will describe what type of research would further this end.

Summary

The study on social dilemmas and behaviour in bullying provided further evidence that both individual *and* group factors contribute to pro- and anti-bullying behaviour. Past research in this area has focused on norms as the key group factor that might affect bullying. The current study examined another group factor: the role of social dilemmas in bullying.

The research contributed to the limited literature on real life social dilemmas. Unlike past field studies that began with a situation in which social dilemma conditions could be demonstrated to exist and then collected data on how people behaved and why, this study broke new ground in using individual reports to establish whether, in the eyes of group members, social dilemma conditions existed.

The study furthered research on the anti-social behaviour of “good” people. When students lived in homes where more students were reporting these conditions, they were more likely to withdraw from bullying situations or bully other students despite their own attitudes about bullying.

The research also produced evidence that fits the model for the prediction of anti-social behaviour presented in Chapter 4. Specifically, the study suggests that those with “low anti-social potential” presented with the “strong situation” of a student home in which a sufficient number of housemates reported social dilemma conditions, would be more likely to behave anti-socially (i.e. withdraw from or support bullying) than those with “low anti-social potential” in “weak situations” (i.e. those in which few housemates reported social dilemma conditions).

Chapter Fourteen: Future Research And Practice On Anti-Social Behaviour

The results of the empirical study suggest the importance of continued research on the role of social dilemmas in children's bullying and other types of anti-social behaviour, and more broadly, on the four basic ideas presented at the outset of the thesis. Further inquiry is also needed to substantiate and refine the models for the prediction of pro-social and anti-social behaviour proposed in Chapter Four.

This chapter first recommends areas for continued research, including research focused specifically on social dilemmas as well as inquiry into the four ideas presented at the beginning of the thesis and into the models for anti- and pro-social behaviour. The chapter concludes with some suggestions for the types of interventions that might be developed or increased if further evidence supports the importance of social context in promoting pro- and anti-social behaviour.

Future Research On Social Dilemmas And Children's Behaviour

The present study suggests the importance of continuing to examine the role of social dilemmas in children's behaviour. Future studies could further understanding by improving measurement of social dilemmas through the use of multiple items to measure each of the three social dilemma conditions, which would allow for the assessment of reliability and provide data that could be used to impute values for missing data. As noted, measurement might also be improved by assessing social dilemma conditions on a continuous scale. Other improvements might include, as also mentioned previously, using different methods to assess social dilemmas such as group or individual interviews and presenting children with hypothetical social dilemma scenarios and having them reflect on whether similar dynamics exist within their student homes or classrooms. A larger sample, which represents the general population in terms of socio-economic status and day school attendance, would also further understanding of the role of social dilemmas in bullying situations.

Testing an intervention programme, designed to address social dilemmas, would be another approach to inquiry in this area. Of course, the primary challenge to such an approach would be the difficulty in establishing whether any observed changes in behaviour are attributable to social dilemma conditions. Thus an intervention study should be part of a broader programme of research on social dilemmas and anti-social behaviour among young people, which includes more basic research, using methods such as those described above.

Several different types of solutions to social dilemma problems have been demonstrated in past research. As described in Chapter Eight, "structural solutions," rid situations of social dilemmas. Such reforms make it possible for individuals to act in their self-interest and, at the same time, benefit the collective (Yamagishi, 1988, Klandermans, 1992, Samuelson and Messick, 1995). One type of structural

solution is a sanctioning system, which punishes those who do not act in the best interest of the group.

Many of the existing anti-bullying programmes have elements of a structural solution. They focus on teaching school staff to recognise and punish bullying and on teaching students (sometimes through modelling and role-playing) how to act to reduce bullying when they encounter it. However, such interventions have some significant limitations. Teachers are often not present during bullying situations, and students may have strong motivations, as discussed in this thesis, to avoid intervening in bullying situations despite their attitudes and intervention training.

Strategies that directly address social dilemma conditions are those that give group members opportunities to safely discuss the dilemma they each face and to make promises to each other about how they will act in the future (Orbell et al., 1988, O'Connor and Tindall, 1990, Kollock, 1998, Komorita and Parks, 1995, Van Lange, 2001, Pruitt, 1998). As trust among group members grows, individuals feel more confident that their own pro-social behaviours will not be wasted or counter-productive.

Research suggests children better use learning strategies when the utility of the strategy is explained to them. This process is called metacognitive training (Paris et al., 1982, Reeve and Brownl, 1985). Children might be better able to reduce bullying if: 1) they understand, in basic terms, how and why social dilemmas work; 2) they are given the opportunity to reflect as a group on if and how social dilemmas are at play in their own social groups; and 3) they are taught strategies known to reduce social dilemma conditions. An adult facilitator also could help students to make promises to one another about how they will behave in future bullying situations. The trust and open communication engendered through such promises might be reinforced over time through periodic group conversations either in person or through technologies like Twitter. In other words, rather than trying to convince children to act altruistically as many anti-bullying programmes do (and ignoring that unilateral efforts to help victims might be ineffective and/or dangerous), such an intervention would help create a trusting environment in which altruistic actions are actually effective strategies. If an evaluation of such an intervention showed significant reductions in bullying among students involved in the programme (based on rigorous comparisons to control groups), then more attention to research and practice focused on bullying and social dilemmas would be justified.

Another approach would be to rely on communications technologies more than on in-person discussions. Such an approach might be particularly effective with cyber-bullying, which is made possible by such technologies. Cyber-bullying through phones and computers (and social networking sites in particular) appears to be increasing. Although research is still limited, this form of bullying appears particularly pernicious because students are often less inhibited when bullying online than in person. Rumours can be spread quickly and anonymously via the internet and are impossible to retract. Moreover, although cyber-bullies usually target schoolmates, schools' jurisdiction over cyber-bullying incidents is often unclear, and many parents have difficulty limiting their children's access to the internet.

The internet's capacity to spread information from anonymous sources, however, might not only facilitate bullying, it might also help to curtail it. There are websites that foster action on the part of individuals because the sites assure users of the support of a collective. An example is the website called Groupon. The name is a combination of "group" and "coupon". Individuals register, free of charge, on Groupon.com, and each day receive an e-mail offering one "unbeatable" deal: an opportunity to receive a discount of 50 to 90 per cent off the regular price of a restaurant meal, spa outing, car wash or other local service. Members who are interested "pledge" the discounted amount and only if a sufficient number of others also pledge, do all pledgers receive the deal. Groupon assures vendors the economies of scale necessary to provide the discount (and expand their customer base) by promising a minimum number of customers. Thus Groupon found a way to use the interest to build a collective to do something that would not be possible on an individual basis. It addresses the problem of individuals' scepticism about their peers' likely actions: why should I take action when it is doubtful that enough others will do the same? The Groupon daily deals *only* occur if enough individuals pledge. If the target number is not reached, no one's credit card is charged.

The idea for Groupon grew out of the founder's work on another website called "The Point". The Point is a web platform for organising collective action based on the tipping point principal—the number of units needed to reach critical mass. The Point allows anyone to write a campaign exhorting others to do something such as stage a demonstration or donate money to a cause. Additionally, like its successor, Groupon, individual action is only required if the target number of people pledge, thus helping group members to feel that their individual actions are worthwhile.

The Point might be used to start an online campaign to stop cyber-bullying in a particular school. For example, a middle school with 400 students could start a campaign, set a target number of 250 students, and ask, via e-mail, that each student pledge some type of public support for a victim of cyber-bullying. For example, a mass e-mail or text message would be sent out to the entire school community expressing support for a victim, signed by 250 students. The Point allows individuals to pledge anonymously and only reveals their identities if the target is met. The exact nature of the campaign - including the target number and the type of pledge - might best be determined by students themselves. Regardless of the campaign particulars, the aim would be to reduce the social isolation of the victim and to increase the isolation of the bullies, while also providing assurance to other students that their pledges of support will be supported by most of the other students in the school. Again, if an evaluation of such an intervention showed significant reductions in bullying among students involved in the programme, then more attention to research and practice focused on bullying and social dilemmas would be justified.

Future Research On Four Basic Ideas

This thesis began with a discussion of four interrelated ideas:

1. Immediate group context can have a significant effect on behaviour.

2. Research and practice have neglected the anti-social behaviour of “good” people.
3. “Good” people are more susceptible to negative influences in their immediate social environments than are “bad” people to positive influences.
4. A significant proportion of all anti-social behaviour is committed by “good” people.

Each of these ideas requires further examination. Recommendations for future research in these areas are discussed below.

Immediate Group Context Can Have A Significant Effect On Behaviour

The majority of the thesis focused on this first idea, which was the premise for the empirical study. The study provided evidence that both individual and group factors are associated with behaviour of children in bullying situations and that social dilemma dynamics are an important group factor in predicting behaviour in bullying situations, with a stronger effect than norms at the group level. Additionally, unlike attitudes and norms, social dilemmas helped to predict withdrawing behaviour. However, there remains much more to be understood about if, when, and how various types of social environments affect various types of behaviours.

The gaps in research on relationships among social environments and behaviour were reviewed in Chapter Seven. As discussed, evolutionary psychology has examined the relationship of aggression and social status in groups of adults. However, more research is needed on children’s and adolescents’ social hierarchies, particularly those which use social network techniques to test propositions formed in ethnographic studies on the stability and influence of cliques and social hierarchies on behaviour over time. Additionally, although there is a large body of research on the influence of group norms on behaviour, such as the classic Sherif studies, more examination of how norms emerge and are transmitted among group members is required.

Further, it remains unclear to what degree a particular behaviour within a group context, such as anti-social behaviour, is affected by individual versus group factors. Various researchers have noted that some situations or groups appear to more strongly influence behaviour than others, but more precise understanding is needed to design more effective interventions. For example, and drawing on cases discussed in Chapters Two and Three, might strong situations require some type of clear authority residing in either a single person or a strictly enforced social norm? Might strong situations require some degree of isolation from other moderating influences on behaviour?

Also unclear is how a present context affects future behaviour and on the degree to which and how individuals apply learning about anti-social behaviour and pro-social behaviour from one context to another. As previously discussed, assessments of behavioural interventions often show changes within the context where the interventions were applied but less often are the changes reported in other contexts. Thus many questions remain. For example: Might present and future contexts need to be sufficiently similar (in terms of quantity and quality of group

members, for instance) for learning to be applied from one situation to another? Do present situations affect future behaviour primarily by fostering behaviour that allows access to different types of future situations that further support the behaviour?

Another important remaining question is: what is the limit of social influences on anti- and pro-social behaviour? The present study showed that individual variables accounted for more variance in behaviour in bullying situations than did group variables. Certainly Rutter and others have demonstrated the strong influence of genetically linked traits such as hyperactivity and impulsivity on anti-social behaviour. The persistence of such traits over time and across generations suggests their limited susceptibility to social influence. Significant early experiences might also have a lasting effect on behaviour, which is difficult to alter in later years. As discussed in Chapter Three, studies of abused children and those living in orphanages without emotional support, suggest that certain synaptic pathways in the brain are not developed when children lack stable emotional attachments with caregivers and peers. Without these connections, it appears that brain development of caring behaviour can be damaged forever (Perry, 2002). Novel social environments might be more likely to change behaviour than situations that are familiar to an individual. As discussed, people might be more prone to applying lessons from one situation to another if the two situations are sufficiently similar. Cases of “good” people behaving poorly, presented at the outset of the thesis, often involved novel and extreme situations in which individuals could not easily draw on past experience to guide their behaviour. Thus social group factors might be less influential in familiar situations. Further, some types of individuals might be more susceptible to social influences than others. For example, some individuals appear more motivated to behave in ways, including anti-social ways, which will boost their status than others (Olthof and Goossens, 2003, Sitsema et al., 2009).

Research And Practice Have Neglected The Anti-Social Behaviour Of “Good” People

The second basic idea, that research and practice have neglected the anti-social behaviour of “good” people, might seem self-evident to anyone working to understand or reduce anti-social behaviour. However, the idea might be better established through a review of research on anti-social behaviour focused on the types of samples such studies employ and how their behaviour is measured. Most studies to date have either limited their samples to those who behave anti-socially or included a broader sample, but limited their focus on usual behaviour, for example, how individuals behaved during the past year. Fewer studies have examined the frequency of anti-social behaviour among both “good” and “bad” people *and* the situational correlates of good and bad behaviour amongst these two groups. As Walter Mischel notes, meteorologists look not only at large climatic trends (which, for example, suggest that Madrid is usually warmer than London). They also examine specific atmospheric processes to predict what the weather conditions will be in a certain place at a certain time. Indeed, the weather forecast for a particular day at a particular time is of greater use to most people than information on general weather conditions over time. Similarly, he suggests that to understand behaviour, one must not only look at individuals’ general behaviour patterns over time, one

should also consider the various factors that lead to specific types of behaviour in specific contexts (Engler, 2009).

“Good” People Are More Susceptible To Negative Influences In Their Immediate Social Environments Than Are “Bad” People To Positive Influences

The third idea, that “good” people are particularly susceptible to negative influences in their immediate social environments, arose from the review of seminal research and historical examples presented in Chapters Two and Three. The Milgram or Stanford Prison experiments, for example, demonstrated how certain environments quickly fostered anti-social behaviour among samples of generally well-behaved individuals. By contrast, examples of generally poorly behaved individuals quickly changing their behaviour were much more difficult to find. However, although anecdotal evidence seems to suggest the particular vulnerability of “good” people, this proposition is not yet well supported through research.

To further research in this area, experimental studies are required. Such studies should assess the anti-social potential of subjects as well as subjects’ actual or potential behaviour in various social environments. Subjects could be surveyed about their likely behaviour in hypothetical situations, or subjects could participate in experimental games (such as those used in social dilemmas research) that allow for observations of actual behaviour. Of course, for ethical reasons, experiments would require approaches that induce less emotional stress than those used by Milgram.

A Significant Proportion Of All Anti-Social Behaviour Is Committed By “Good” People

The final idea, that a significant proportion of all anti-social behaviour is committed by “good” people, is supported by surveys of samples that represent the general population. As noted in Chapter Two, a 1995 survey of a national random sample of 14-25 year olds in the U.K. found that three per cent of young offenders were responsible for 26 per cent of self-reported offences in one year (Graham and Bowling, 1995). Other studies, based on both government records and self-reports, have produced similar findings, suggesting that a small percentage of offenders (usually less than 10 per cent of a sample) account for a large percentage of crimes, usually between 20 and 50 percent (Farrington and West, 1993, Flood-Page et al., 2000). Such statistics suggest that 50 to 80 per cent of offending is not being conducted by “bad” people (i.e. the small percentage of persistent offenders), but rather by the rest of the population or “good” people.

To further support the proposition that a large percentage of anti-social behaviour is committed by non-persistent offenders, further surveys of the general population are needed which allow researchers to assess the degree to which “bad” behaviour (including both criminal and other types of anti-social behaviour) by “good” people varies by age, gender, ethnicity, socio-economic status, and other factors.

Research to Substantiate and Refine Models

Following the discussion of “good” people behaving anti-socially and of “bad” people behaving pro-socially in Chapters Two and Three, Chapter Four proposed two models to explain anti-social and pro-social behaviour. Further research is required to test and refine these models. Suggestions for ongoing research in this area are discussed below.

Model for Anti-social Behaviour

The primary question behind the anti-social model is: under what circumstances do those with low anti-social potential nevertheless behave anti-socially and how might such experiences relate to future behaviour? The study, which was the focus of this thesis, demonstrated the potential influence of a strong situation, characterised by social dilemma dynamics, on the behaviour of students with low anti-social potential. As previously discussed, strong situations, or those that provide clear cues regarding acceptable behaviour, tend to wield more influence than weaker, less structured ones (Deaux and Major, 1987, Krahe, 1992). Social dilemmas fit this description. However, as noted above, more work is needed to specify what constitutes a strong or weak situation and how a present context affects future behaviour. This type of information would help to refine the model for anti-social behaviour.

To further substantiate the model for anti-social behaviour, longitudinal studies that follow a sample, drawn from the general population, over a long period of time might be employed. Such studies might assess the anti-social potential of subjects early in life and then assess the quality and impact of naturally-occurring strong situations on present behaviour as well as how present behaviour relates to future behaviour and what appears to mediate or moderate those relationships. However, given the difficulty and expense of such an approach, short-term studies might be more feasible. For example, the bullying and social dilemmas study might be redesigned to occur over the course of a year by assessing anti-social potential at Time One, the influences of social dilemmas on present behaviour in bullying situations at Time Two, and future behaviour in bullying situations at Time Three. To further understand the relationship between Times Two and Three, potential mediators or moderators might also be measured such as changes in social affiliations.

Model for Pro-Social Behaviour

The primary question behind the pro-social model is: under what circumstances do those with high anti-social potential nevertheless behave pro-socially and how might such experiences relate to future behaviour? Although the majority of offending appears to be conducted by those with low anti-social potential, prisons and head masters’ offices are filled with chronic offenders and clear solutions to breaking the cycles of recidivism still elude researchers and practitioners. As noted in Chapter Three, it is more difficult to find research

evidence or historical examples of “bad” people behaving pro-socially than of “good” people behaving poorly. Moreover, the examples are not as dramatic and changes are more gradual.

The current study did not address this issue. However, an evaluation of an intervention designed to reduce social dilemmas by increasing communication and trust among group members, such as the ones described above, might track the effects, in particular, on students who tend to be chronic bullies. A famous quote attributed to Aristotle, "No tyrant need to fear till men begin to feel confident in each other", suggests the potential power of such an intervention. Because bullies' power is dependent on the actions of others, particularly those who join in the bullying and witness it without trying to stop it, changes in the behaviour of bystanders would likely change the behaviour of bullies.

Broader research on the elements of strong situations that impact the current and future behaviour of those with high anti-social potential is also needed. Interventions based on the power of leaders, religion, association with pro-social individuals, and empathy and responsibility toward others all require further research. Also needed is more inquiry into the paths between pro-social behaviour among typically anti-social individuals in the current circumstances and their future behaviour, under varying circumstances. Such understanding might be attained through longitudinal research on those with high anti-social potential focusing on whether and how certain types of strong situations change behaviour trajectories of certain types of individuals. Such research could clarify the extent to which continued pro-social behaviour is dependent on significant changes in environments over the long-term; to what degree learning from one situation is applied to varying future situations; and what variables appear to mediate or moderate the relationship between present and future behaviour.

Implications for Practice

If research tends to support the basic ideas and models proposed in this thesis, the implications for practice are quite broad. Teachers, social workers, and others working with children usually have limited influence over risks and protective factors of individual children. However, they have greater influence over social circumstances in their domains and can engineer them to promote pro-social behaviour and prevent anti-social behaviour. Interventions, in general, could aim to create environments which help individuals to fulfil common human desires such as to protect oneself from harm or criticism, to garner acceptance or praise from leaders and peers in a group, and to empower oneself in pro-social ways. Possible interventions, pending research support, are briefly described below.

Although no current bullying interventions use social dilemma models, some new, related interventions do address dilemmas faced by bystanders. As noted, the KiVa programme in Finland teaches children safe strategies for supporting victims (Kärnä et al., 2011). Similarly, several programmes designed to reduce violence (including sexual violence) on college campuses focus on the role of the bystander. Programmes like *Mentors in Violence Prevention*, *The Green Dot Programme*, and *Bringing in the Bystander* train college students on various methods of intervening

that maximise their own safety, such as making an anonymous phone call, sending a text message to a friend or diverting the attention of the perpetrator. *The Bringing in the Bystander Programme* also has students generate their own “bystander plans” for when they witness sexual violence and sign a pledge that they will be active, pro-social bystanders in the future. Such strategies, however, do not address group dynamics, and their impact has yet to be established. A longitudinal study of the *Green Dot Programme* and its impact on violence among high school populations began in 2009 and will conclude in 2014. A study of the 389 students at a U.S. college, suggested that students who participated in the *Bringing in the Bystander Programme* were more likely to report positive bystander behaviour than students who did not participate. However, this study did not assess the impact of the programme on the occurrence of sexual violence on campus (Prevention, 2009, Banyard et al., 2007, Cornblatt, 2009).

Another intervention, *the Safe School Ambassadors Programme*, acknowledges the influence that some students have within the social hierarchy of schools and trains these students to be “ambassadors” for good behaviour by setting a pro-social example and intervening in bullying and other conflicts. The ultimate goal is to have this core group of influential students change the social emotional climate of a school and thus it reflects evidence from history that influential leaders, like Martin Luther King, can affect the behaviour of those who might otherwise behave anti-socially. It also draws on the influence of existing social hierarchies, which ethnographic studies of children suggest have a strong impact on behaviour. Anecdotal evidence suggests that ambassadors can be effective in reducing bullying and other problem behaviour in schools, although no rigorous pre/post test studies with comparison groups have been conducted to date (Phillips et al., 2006). Similarly, the KiVa programme in Finland includes meetings with pro-social and high status students to encourage them to support victimised students (Kärnä et al., 2011).

Future interventions might also draw on learning from research concerning the just world theory by engineering group activities to show the strength, power, and talents of victimised children. As noted, the just world theory explains some anti-social behaviour as resulting from a desire to see the abuse of victims as fair or morally correct. Thus an intervention that undermines the images others have of victims as deserving of their abuse might help to curb bystanders’ active or tacit support of bullies.

Teachers and other adults working with children can also engineer social environments by altering group sizes. Evidence suggests that bullying usually occurs in the presence of other children, a finding that is not surprising given how young people involved in ethnographic studies describe the social hierarchies in their classrooms and the function of such hierarchies. Additionally, the work of Darley and Latane on the bystander effect suggests that as the number of bystanders increase, the amount of helping behaviour decreases. Thus educators might try to limit the number of students allowed to congregate during recess and other times, such as before and after school, when fewer adults are present.

Another strategy for reconstructing social environments in schools to promote pro-social behaviour might involve creating working groups within

classrooms to spur association among those with high and low anti-social potential. Work by Rutter and others show “turning point effects” when chronic offenders begin to associate with pro-social others either in work settings or through dating and marriage. Additionally, the memoirs of Jimmy Boyle, the notorious Scottish criminal, show that his positive interactions with prison staff, and later with other artists, helped him to see others as supporters rather than adversaries. The work of such groups would require careful planning so that the influence is in a positive direction (and thus avoiding iatrogenic effects described by Dishion). For example, teachers might include more “good” students than “bad” ones in a group. Also, the activity of the group might require all individuals to participate in order to be successful or might require the special talents of the “bad” student.

Restorative justice programmes, such as *The Truth and Reconciliation Commission* in South Africa, are another avenue for changing the behaviour of typically anti-social individuals. This approach focuses on the needs of victims and offenders, instead of on punishing the offender. Victims take an active role in the process, and offenders are encouraged to take responsibility for their actions by repairing the harm caused or revealed by anti-social behaviour. Such programmes are currently popular in schools in the U.S. and use varying approaches such as victim-offender dialogue, small group conferencing, peer mediation, and peacemaking circles. As noted earlier, more research is needed to understand which approaches work best with which type of students.

If bullies and others who behave anti-socially are motivated to gain power in their social groups, another way adults can help alter children’s behaviour is to provide them with the means to gain power pro-socially. For example, they might be asked to lead discussions about classroom behaviour/management. Cooke recounts that one of the first rules set by prisoners in the Barlinnie Special Unit was that all violent behaviour was unacceptable, suggesting that even those who have been the perpetrators of violence desire to live peacefully among others. When teachers, other adults, and other students experience these individuals differently, they might begin to treat them with more respect and have higher expectations for them, thus further fostering pro-social behaviour.

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A detailed discussion of human nature falls outside of the scope of this thesis. However, as noted in Chapter One, current research evidence tends to support the perspective of 18th century philosophers such as Rousseau. In *Emile*, Rousseau described how children are born in a natural state, with no conception of good or evil, and as early as infancy begin to form abiding conceptions of the world as a result of the type of care they receive from adults. In line with the ideas of Rousseau, humans’ natural states—or what is today referred to as genetic composition—appear to be related more to “good” behaviour than “bad.” As noted earlier in this thesis, twin and adoption studies have shown that genetic composition accounts for only a small percentage of the variance in different types of anti-social behaviour (Patterson, 2008). Studies have also shown that anti-social behaviour is stable across time and circumstances for a small percentage of people (three-nine per cent) and decidedly unstable for most others, suggesting the importance of environmental

factors (Barak, 2003). Moreover, research by Plomin and Knafo suggests that pro-social behaviour has deeper genetic roots than anti-social behaviour. They have found that by age seven, genetics accounts for over 50 per cent of the variance in pro-social behaviour (Knafo and Plomin, 2006).

Despite our apparent propensity for good behaviour, it is not always easy. Rousseau also said that “virtue is a state of war, and to live in it we have always to combat with ourselves.” This thesis has focused on circumstances that make virtue a battle. Individuals tend to respond to their immediate social context in ways that help them fulfil common human desires. Such desires can be accomplished through both pro-social and anti-social means. Evidence suggests that most people enter the world with a predisposition to behave well and will fulfil desires pro-socially in most social contexts. However, some contexts provide limited means to fulfil desires pro-socially and instead foster anti-social behaviour.

This thesis suggests the potential for much greater understanding of behaviour and more powerful methods to foster and support pro-social behaviour of both “bad” and “good” children, if the impact of social contexts on behaviour gains more attention in the realms of both research and practice.

Summary

The present study suggests the importance of continuing to examine the role of social dilemmas in children’s behaviour. Future studies could further understanding by improving measurement of social dilemmas. Testing an intervention programme, designed to address social dilemmas, would be another approach to inquiry in this area. Interventions that promote communication and trust among classmates, either through an adult facilitator or through the use of the internet, might help students to feel more confident that their pro-social behaviour (including defending victims and not supporting bullies) would be supported by their peers.

More research is needed on each of the four basic ideas presented at the outset of the thesis. Better understanding of the effect of immediate group context on behaviour requires more inquiry into children’s and adolescents’ social hierarchies. Further, it remains unclear to what degree a particular behaviour within a group context is affected by individual versus group factors. Also unclear is how a present context affects future behaviour and on the degree to which and how individuals apply learning about anti-social behaviour and pro-social behaviour from one context to another. Another important remaining question is: what is the limit of social influences on anti- and pro-social behaviour?

The second basic idea, that research and practice have neglected the anti-social behaviour of “good” people, might be better established through a review of research on anti-social behaviour focused on the types of samples such studies employ and how their behaviour is measured. The third idea, that “good” people are particularly susceptible to negative influences in their immediate social environments, requires studies that assess the anti-social potential of subjects as well as subjects’ actual or potential behaviour in various social environments. The final

idea, that a significant proportion of all anti-social behaviour is committed by “good” people could be further tested through surveys of the general population which allow researchers to assess the degree to which “bad” behaviour by “good people” varies by age, gender, ethnicity, socio-economic status, and other factors.

If research tends to support the basic ideas in this thesis, the implications for practice are quite broad. Teachers, social workers, and others working with children usually have limited influence over risks and protective factors of individual children. However they do have the ability to engineer social environments in ways that help individuals to fulfill common human desires in pro-social ways.

Appendices

Appendix A: Measurement of Social Dilemma Conditions

Type of Bullying	Conditions	Related Item(s)	Item Number(s)	Item Value(s)*
Verbal	A: Unilateral action is ineffective OR dangerous	I could get other kids to stop teasing someone in my home by myself.	x3c	3 or 4
		If I tried, by myself, to help a kid in my home who was being teased, other kids would be mean to me.	x3f	1 or 2
	B: Group efforts are more effective OR safe than unilateral ones	I could get other kids to stop teasing someone with other students helping me.	x3b	< x3c
		If I tried, along with some other kids, to help a kid who was being teased, other kids would be mean to me.	x3g	> x3f
	C: Low expectations regarding others' cooperation	I think other kids in my home would help someone who is being teased.	x3d	3 or 4
Physical	A: Unilateral action is ineffective OR dangerous	I could get other kids to stop beating up someone in my home by myself.	x3l	3 or 4
		If I tried, by myself, to help a kid in my home who was being beat-up, other kids would be mean to me.	x3o	1 or 2
	B: Group efforts are more effective OR safe than unilateral ones	I could get other kids to stop beating up someone with other students helping me.	x3k	< x3l

Type of Bullying	Conditions	Related Item(s)	Item Number(s)	Item Value(s)*
		If I tried, along with some other kids, to help a kid who was being beat-up, other kids would be mean to me.	x3p	> x3o
	C: Low expectations regarding others' cooperation	I think other kids in my home would help someone who is being beat-up.	x3m	3 or 4
Relational	A: Unilateral action is ineffective OR dangerous	I could get other kids to stop gossiping about someone in my home by myself.	x3u	3 or 4
		If I tried, by myself, to help a kid in my home who was being gossiped about, other kids would be mean to me.	x3x	1 or 2
	B: Group efforts are more effective OR safe than unilateral ones	I could get other kids to stop gossiping about someone with other students helping me.	x3t	< x3u
		If I tried, along with some other kids, to help a kid who was being gossiped about, other kids would be mean to me.	x3y	> x3x
	C: Low expectations regarding others' cooperation	I think other kids in my home would help someone who is being gossiped about.	x3v	3 or 4

* Values

1 = Strongly Agree

2 = Agree

3 = Disagree

4 = Strongly Disagree

Appendix B: Full Coefficient Table

Table Twelve: Effects Of Grade, Gender, Attitudes, Group Norms, And Social Dilemmas On Behaviour In Bullying Situations Estimated For The Final Model (M11): Regression Coefficients (With Standard Errors)

	Bullying	Assisting the Bully	Reinforcing the Bully	Composite Pro-Bullying Behaviour	Withdrawing	Defending the Victim
Constant ³³	-0.596 (0.246)*	-0.580 (0.249)*	-0.550 (0.239)*	-0.613 (0.241)*	-1.237 (0.345)**	0.020 (0.230)
Level 1 (Within Group) Predictors						
Grade 7	0.110 (0.137)	0.032 (0.138)	0.018 (0.137)	0.038 (0.137)	0.015 (0.150)	0.228 (0.141)
Grade 8	-0.049 (0.132)	-0.063 (0.133)	-0.200 (0.134)	-0.087 (0.133)	0.230 (0.145)	0.850 (0.180)**
Anti-Bullying Attitudes	-0.444 (0.096)**	-0.458 (0.096)**	-0.476 (0.096)**	-0.484 (0.096)**	0.066 (0.105)	0.378 (0.100)**
Attitude Missing Data	-0.415 (0.201)*	-0.378 (0.202)	-0.462 (0.200)*	-0.437 (0.201)*	0.291 (0.221)	0.193 (0.212)
Social Dilemma (Verbal Bullying)	-0.187 (0.162)	-0.193 (0.163)	-0.197 (0.162)	-0.203 (0.163)	-0.171 (0.179)	-0.152 (0.173)
Social Dilemma (Verbal Bullying) Missing Data	-0.066 (0.255)	0.012 (0.257)	0.133 (0.255)	0.0368 (0.257)	-0.436 (0.282)	-0.039 (0.273)
Social Dilemma (Physical Bullying)	-0.042 (0.180)	0.070 (0.181)	-0.016 (0.182)	-0.018 (0.181)	0.165 (0.199)	0.038 (0.193)
Social Dilemma (Physical Bullying) Missing Data	0.184 (0.250)	0.076 (0.252)	0.001 (0.250)	0.088 (0.251)	0.560 (0.276)	-0.155 (0.268)
Social Dilemma (Relational Bullying)	-0.353 (0.186)	-0.393 (0.187)*	-0.594 (0.229)*	-0.327 (0.187)	0.122 (0.205)	0.125 (0.200)
Social Dilemma (Relational Bullying) Missing Data	-0.324 (0.230)	-0.298 (0.231)	-0.284 (0.229)	-0.322 (0.231)	-0.198 (0.253)	-0.113 (0.245)
Social Dilemma (Relational Bullying) X Grade 8	--	--	0.893 (0.387)*	--	--	--
Level 2 (Between Group) Predictors						
Gender	0.420	0.331	0.282	0.353	0.976	0.335

³³ Constant represents reference group for dummy variables (i.e. girls, grade six, and reporting less than three of the conditions for social dilemmas) as well as the mean for grand mean centered variables (i.e. mean attitudes, mean anti-bullying norms, and mean neutral norms).

	(0.145)**	(0.148)*	(0.142)	(0.142)*	(0.277)*	(0.201)
Anti-Bullying Norms	-0.026 (0.012)*	-0.030 (0.012)*	-0.035 (0.012)*	-0.030 (0.012)*	0.005 (0.014)	0.018 (0.010)
Anti-Bullying Norms Missing Data	-0.472 (0.546)	-0.52 (0.555)	-0.530 (0.531)	-0.479 (0.535)	0.522 (0.565)	-0.094 (0.437)
Neutral Norms	0.064 (0.073)	0.161 (0.075)*	0.148 (0.071)*	0.126 (0.072)	0.042 (0.081)	-0.129 (0.058)*
Neutral Norms Missing Data	0.458 (0.772)	1.021 (0.785)	0.730 (0.749)	0.764 (0.755)	-0.630 (0.825)	-1.237 (0.611)
Mean Social Dilemma (Verbal Bullying)	-0.725 (0.798)	-0.584 (0.811)	-0.772 (0.774)	-0.721 (0.781)	-0.454 (0.828)	0.179 (0.683)
Mean Social Dilemma (Verbal Bullying) Missing Data	-0.427 (1.177)	-0.381 (1.196)	0.279 (1.147)	-0.024 (1.152)	2.013 (1.265)	-0.362 (0.960)
Mean Social Dilemma (Verbal Bullying) Gender	--	--	--	--	--	-2.389 (1.00)*
Mean Social Dilemma (Physical Bullying)	1.510 (0.807)	1.685 (0.820)	2.444 (0.784)*	1.992 (0.791)*	5.159 (1.536)**	-1.140 (0.723)
Mean Social Dilemma (Physical Bullying) Missing Data	0.111 (1.465)	1.002 (1.488)	0.578 (1.437)	0.380 (1.433)	-4.578 (1.666)*	-1.477 (1.149)
Mean Social Dilemma (Physical Bullying) X Gender	--	--	--	--	-5.273 (1.731)**	--
Mean Social Dilemma (Relational Bullying)	2.269 (1.020)*	1.762 (1.035)	1.888 (0.990)	2.007 (0.999)	2.086 (1.130)	0.309 (0.964)
Mean Social Dilemma (Relational Bullying) Missing Data	3.026 (1.366)*	2.120 (1.388)	2.239 (1.328)	2.642 (1.337)	3.562 (1.518)*	1.419 1.088
Mean Social Dilemma (Relational Bullying) X Grade 8	--	--	--	--	--	-3.156 (1.191)**

* = p<.05, ** = p<.01

Appendix C: References

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