



An Examination of Variation in Social Cognitions in Bullying for Different Participant
Roles: A Retrospective of Adults

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Philosophy

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Statement of Originality

I certify that except where due acknowledgement has been made, the work is that of the author alone; the work has not been submitted previously, in whole or in part, to qualify for any other academic award; the content of the thesis is the result of work which has been carried out since the official commencement date of the approved research program; any editorial work, paid or unpaid, carried out by a third party is acknowledged; and, ethics procedures and guidelines have been followed. I acknowledge the support I have received for my research through the provision of an Australian Government Research Training Program Scholarship.

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List of Abbreviations

EMS	Early Maladaptive Schemas
HSD	Honestly Significant Differences
KMO	Kaiser-Meyer-Olkin
PRS	Participant Role Scale
SCBM	Social Cognitions in Bullying Measure
SCBM-R	Social Cognitions in Bullying Measure-Revised
SD3	Short Dark Triad
WHO	World Health Organization

Abstract

Bullying involves behavior that is intended to harm, is repetitive, and characterized by an imbalance of power. Recent research has shifted from a narrower focus on dyadic bully-victim interactions to a broader socio-ecological perspective. There is increasing attention given to a range of roles associated with bullying such as bully, assistant, reinforcer, victim, defender, and outsider. Further, there is increasing recognition that roles can be dynamic, that is, a person may fulfil a range of roles depending upon social context. Nevertheless, research has tended to focus on the relatively stable cognitive styles of individuals who tend to play a specific role, rather than exploring how social cognitions may change depending upon the role assumed. It could be, therefore, that role-congruent social cognitions may contribute to the explanation of bullying behavior over and above individual difference variables such as personality traits. Further, it is challenging to address individual difference variables with practical intervention strategies. The current research, therefore, sought to examine cognitions specific to each role, irrespective of whether this role represented an individual's habitual behavior.

The current research is comprised of four studies. The aim of the first study (Chapter 4) was to develop a measure of the social cognitions experienced by individuals when involved in different bullying roles. Item development was guided by broad themes identified in the literature. This yielded an initial measure of social cognitions in bullying (SCBM) suggesting four cognitive dimensions: personal guilt, diffusion of responsibility, perceived influence, and responsibility to intervene. Study 2 (Chapter 5) employed this measure to establish profiles of bullying-related cognitions for each of the six identified roles. The clear variation in cognitive patterns between roles confirmed the viability of this research direction.

Study 3 (Chapter 6) further developed the SCBM yielding the revised SCBM-R. Additional items were generated representing emergent themes, allowing a more nuanced

measurement of cognitions according to six dimensions: personal guilt, diffusion of responsibility, perceived influence, social endorsement, personal culpability, and personal volition. Study 4 (Chapter 7) sought to integrate the present program of research which explored role-congruent cognitions with extant perspectives emphasizing individual differences. To accomplish this, the study investigated the extent to which each specific role predicted social cognitions over and above pertinent personality characteristics, specifically psychopathy, Machiavellianism, and narcissism. Social cognitive profiles for each role could still be discerned after taking these personality variables into account. As cognitions shared by those adopting a particular role are socially constructed, they provide germane intervention targets. This research provides evidence for the use of social cognitive profiles associated with particular participant roles as a basis for a new approach to bullying research, ultimately leading to practical and effective interventions.

Chapter 1: Introduction

Bullying is a significant and pervasive problem that affects children and adults (Craig et al., 2009; Due et al., 2005). It is important to study bullying because of the short- and long-term impact it has on those victimized (Klomek, Sourander, & Gould, 2011; Wolke, Copeland, Angold, & Costello, 2013). This impact includes low levels of self-esteem and self-efficacy (Esbensen & Carson, 2009; Nazir & Nesheen, 2015), higher levels of social alienation, engagement in high risk behaviors (Delfabbro et al., 2006; Varhama & Björkqvist, 2005), increased risk of long-term psychiatric disorders (Sourander et al., 2007; Thomas, Chan, Scott, Connor, Kelly, & Williams, 2016), suicide (Reed, Nugent, & Cooper, 2015) and lower health-related quality of life (Allison, Roeger, & Reinfeld-Kirkman, 2009). Recognition of the potential for significant negative effects has resulted in an increase in research dedicated to a better understanding of bullying (Craig et al., 2009; Due et al., 2005; Ochberg, 2012; Pilkington, 2014; Salmivalli, Poskiparta, Ahtola, & Haataja, 2013).

Historically, investigations into bullying have predominantly focused on dispositional differences between the bully and the victim (Boulton & Underwood, 1992; Chen, Cheng, & Ho, 2013; Gini, Pozzoli, & Hauser, 2011; Jansen, Veenstra, Ormel, Verhulst, & Reijneveld, 2011; Kaloyirou & Lindsay, 2008; Olweus, 1988; Rigby & Slee, 1991; Rivers, 2001; Rivers & Smith, 1994; Tani, Greenman, Schneider, & Fregoso, 2003). However, researchers have begun to recognize that broader social processes can also significantly contribute to bullying (Gregg & Shale, 2013; Huitsing & Veenstra, 2012; Lucas-Molina, Williamson, Pulido, & Calderon, 2014; Nansel et al., 2001; Pellegrini & Long, 2002; Salmivalli & Voeten, 2004; Salmivalli, Karhunen, & Lagerspetz, 1996a; Sutton & Smith, 1999). Specifically, roles of others in the bullying situation can be a significant factor in bullying situations (Salmivalli, Lagerspetz, Björkqvist, Österman, & Kaukiainen, 1996b).

Research investigating bullying has produced a diversity of results. These have been attributed to differences in personality (Gini, Albiero, Benelli, & Altoè, 2007; Jansen et al., 2011; Jones & Paulhus, 2014; Tani et al., 2003), contextual factors (Hitti, Mulvey, Rutland, Abrams, & Killen, 2014; Killen, Rutland, Abrams, Mulvey, & Hitti, 2013; Levy & Killen, 2008; Park & Killen, 2010), gender (Knight, Guthrie, Page, & Fabes, 2002), and type of bullying (Hymel & Swearer, 2015). Regarding the big five personality traits for example, De Bolle and Tackett (2013) reported that those who play the role of bully are characterized by low openness to experience. In contrast, several other researchers have reported that those who typically adopt the bully role are characterized by low conscientiousness and agreeableness (Bollmer, Harris, & Milich, 2006; Book, Volk, & Hosker, 2012).

Bullying has also been examined using a range of methodological techniques, which has led to varying results (McBurney & White, 2009; Merriam, 2009; Pellegrini & Bartini, 2000; Smith, 2014). Chapter 3 explores and attempts to resolve common methodological issues associated with bullying research. Further, the various definitions of bullying used in the research have also shown to influence research outcomes as this impacts on both operationalization and instructions given to participants (Arora, 1996).

Researchers examining bullying have not only explored its prevalence and how it impacts people but also how and why it occurs (Craig et al., 2009; Sanders & Phye, 2004). This chapter explores the following: definitions, types of bullying, prevalence, and the short- and long-term effects.

1.1. Definition of Bullying

A general acknowledgement within the literature is the absence of a universally-recognized definition of bullying (Esbensen & Carson, 2009; Migliaccio & Raskauskas, 2016; Smith, 2011). A substantial amount of published literature has aimed to develop a consistent way of defining and measuring bullying (Arora, 1996; Naylor, Cowie, Cossin,

Bettencourt, & Lemme, 2006; Salmivalli et al., 1996b; Smith, Cowie, Olafsson, & Liefvooghe, 2002) which would enable more accurate cross-national comparisons and prevalence estimations (Furlong, Sharkey, Felix, Tanigawa, & Green, 2010; Huang & Cornell, 2015). The fundamental problems here involve not only how researchers and participants define bullying but also how the wording or presentation of the definition results in different operationalization and research outcomes (Monks & Smith, 2006; Smith et al., 2002; Vaillancourt et al., 2008).

A substantial proportion of bullying literature concerns the school setting (Álvarez-García, García, & Núñez, 2015). One of the first researchers to explore bullying within a school setting was Dan Olweus (1973) who defined bullying as "...a student is being bullied or victimized when he or she is exposed, repeatedly and over time, to negative actions on the part of one or more other students." (1994, p.1173). Olweus (1994) further stated that these adverse actions involve intentionally causing or attempting to cause distress to others and included exclusion from the group, obscene gestures, physical harm (e.g. kicking, hitting), and verbal abuse (e.g. yelling). The requirement for behaviors to be repetitive was incorporated to exclude adverse actions that were one-off incidents. Later researchers expanded the definition of bullying to include an imbalance of power between the bully and the victim (Dake, Price, & Telljohann, 2003). Intent to harm, repetition, and imbalance of power are common factors that can be identified in other researchers' definitions of bullying (Arora, 1996; Monks & Smith, 2006; Smith et al., 2002). These three factors were therefore included in the definition adopted in the current thesis. Similar definitions are now being adopted by government agencies with respect to adult workplaces and other contexts (Fairwork Australia, 2019).

1.2. Types of Bullying

Despite common elements, bullying can occur in different forms. These can be classified into direct and physical, direct and verbal and indirect forms of bullying (Pronk, Olthof, Goossens, & Krabbendam, 2018). Direct and physical bullying includes hitting, pushing, kicking, and damaging property. Direct and verbal bullying includes name calling, teasing, laughing at, and threatening. Indirect bullying includes spreading nasty rumors, purposefully excluding an individual from a social group, sending offensive/rude text messages or emails, and placing information about the victim on the internet (Fitzgerald, 1999; Hymel & Swearer, 2015; Rivers & Smith, 1994). Indirect bullying via electronic means is known as cyber-bullying.

Cyber-bullying is widely understood to include unpleasant messages or negative posts, or comments put online about another person through email or social media (Whittaker & Kowalski, 2015). Nevertheless, there are discrepancies between definitions of cyber-bullying and those for traditional bullying. Cyber-bullying is different to traditional forms of bullying, firstly because it does not always involve an imbalance of power in favor of the perpetrator, and secondly because it may consist of a one-off incident that gets liked and shared multiple times on social media (O'Moore & Minton, 2011). The studies presented in this thesis only include cyber-bullying incidents which fall within the traditional conceptualization. Although cyber-bullying is not as common as the direct means of bullying, it is of more concern to researchers because it gives rise to a persistent digital trace and appears to have a greater personal impact (Duy, 2013; Kowalski, Giumetti, Schroeder, & Lattanner, 2014; Kyriacou & Zuin, 2015; Rivers & Smith, 1994). Impacts can include depression, anxiety, substance use, and lower achievement (Barchia & Bussey, 2010; Boulton & Underwood, 1992; Kim, Catalano, Haggerty, & Abbott, 2011; Ponzo, 2013). These impacts can also include completed suicide by the victim (Young, Subramanian, Miles,

Hinnant, & Andsager, 2016). A well-publicized example is the case of Amanda Todd, who posted a YouTube video and used flash cards to detail how she had been cyber-bullied months before taking her own life (Dean, 2012).

Nevertheless, traditional forms of bullying (i.e. physical, relational and verbal bullying) are more prevalent than cyber-bullying, at least among adolescent and young adult cohorts (Modecki, Minchin, Harbaugh, Guerra, & Runions, 2014). Vaillancourt et al. (2010) reported that school students from grades 4 to 12 indicated that they were physically (31%) and verbally (51%) victimized more than they were cyber-bullied (12%). Studies on the diverse types of bullying highlight the importance of establishing a definition which can accommodate a range of scenarios.

1.3. National Differences in the Prevalence of Bullying

Studying the prevalence of bullying is important because it can help quantify the seriousness of the problem and inform intervention strategies. Obtaining accurate prevalence data for bullying would enable researchers to examine why there may be significant differences between samples and use this information to develop programs that would target these samples and reduce bullying. Several studies investigating the prevalence of bullying in various countries (Canada, Egypt, England, Greece, Turkey, and the USA) have used a similar definition of bullying that includes intent to harm, repetition, and imbalance of power (Elgar et al., 2015; Molcho et al., 2009). These international studies have shown significant variations in prevalence (Cook, Williams, Guerra, Kim, & Sadek, 2010; Cross et al., 2009; Harel-Fisch et al., 2011; Hazler, Miller, Carney, & Green, 2001; Mishna, Pepler, & Wiener, 2006; Nansel et al., 2001).

Prominent studies by Craig et al. (2009) and Due et al. (2005) have compared bullying prevalence cross-nationally. These combined findings indicated a wide range between 4.8% and 45.2% (Craig et al., 2009; Due et al., 2005). Craig et al. (2009) conducted

one of the largest studies examining the prevalence of bullying, comparing the prevalence of bullying among boys and girls of different ages in 40 countries ($N = 202,056$). Results showed that the prevalence of bullying varied across countries from 8.6% in Sweden to 45.2% in Lithuania among boys, and from 4.8% in Sweden to 35.8% in Lithuania among girls. Bullying behavior was more prevalent among boys in all 40 countries. Victim status was more prevalent among girls in 29 of the 40 countries. The findings also indicated that bullying decreased with age in 30 of the 40 countries for boys and 25 of 40 countries for girls. These findings are relevant to the current thesis because they indicate that, despite varying prevalence, bullying is a universal problem. Therefore, continued research is needed within the area of bullying in order to better understand its antecedents and to develop strategies to reduce its harmful effects in the future.

While the literature indicates that bullying is a universal issue, the variation in prevalence between countries has not been well explained. Both Craig et al. (2009) and Due et al. (2005) attribute this to the influence of multiple factors including: using measures that are not translated accurately between different countries; differences in the cultural meaning of different words; perceptions of the severity of bullying; and differences in school and organizational environments, programs, and existing policies employed to reduce bullying. There are also variations in prevalence associated with age as the literature has shown that bullying tends to occur more in the later years of primary school and early years of high school (Carr-Gregg & Manocha, 2011). Further, the prevalence of workplace bullying is likely to be substantially underreported (Carter et al., 2013).

1.4. Short-Term Effects of Bullying

While it has been documented that some adults assume bullying to be a harmless process in human development (Juvonen, 2005; Scarpaci, 2006), there is extensive research that indicates bullying can have both short-term and long-term effects on children and adults

(Vartia, 2001; Wolke et al., 2013). “Short-term” refers to effects that occur while the individual is still experiencing the bullying, while “long-term” refers to subsequent ongoing health outcomes due to previous bullying. Short-term effects include diminished mental health (e.g. low self-esteem, anxiety, and depression), poor social adjustment (e.g. inferior academic and work performance, and substance use), and self-harm (e.g. suicidal attempts).

Psychological well-being. Psychological well-being can be characterized as being happy, satisfied with life, and having a good support structure (Nazir & Nesheen, 2015). It is sometimes referred to as positive functioning, positive mental health, or mental well-being. Numerous studies have confirmed an inverse association between bullying and indicators of psychological well-being in both young people and adults. Bowling and Beehr (2006) conducted a meta-analysis of the impact of workplace bullying, reporting moderate negative associations with bullying for positive affectivity, self-esteem and life satisfaction.

Self-esteem. Self-esteem outcomes have been well-documented within the area of bully victimization. Results consistently indicate that victims had lower levels of self-esteem compared to non-victims and bullies (Duncan, 1999; Juvonen, Nishina, & Graham, 2000; O'Moore & Kirkham, 2001; Rigby & Slee, 1991). O'Moore and Kirkham (2001) explored the relationship between self-esteem and bullying to explain this phenomenon. Using a self-report questionnaire (Olweus self-report questionnaire on bullying) (Whitney & Smith, 1993) and self-concept scale (Piers-Harris self-concept scale) (Piers, 1984), O'Moore and Kirkham (2001) found that victims' lower self-esteem was associated with greater anxiety and perceptions of being less physically attractive and less popular than those not victimized.

Several studies of children have demonstrated a relationship between psychological well-being and bullying (Bond, Carlin, Thomas, Rubin, & Patton, 2001; Salmon, James, & Smith, 1998; Soler, Paretilla, Kirchner, & Forns, 2012). Egan and Perry (1998) found a positive relationship between being a victim of bullying and self-esteem measured using both

peer rating scales and a self-esteem questionnaire that measured both global and specific aspects of self-worth. Further, changes in self-worth of victims and non-victims were measured over a five-month interval. Results indicated that the self-esteem of victims diminished over time, and that this increased vulnerability to the impact of further bullying. Egan and Perry (1998) stated that negative self-worth could also play a critical role in being victimized, although the effect size reported was small. Studies have also shown that victimization causes feelings of anger, self-pity, and vengefulness (Borg, 1998; Rigby, Cox, & Black, 1997). Victimization could, therefore, result in poorer psychological well-being which consequently can result in further bullying.

Soler et al. (2012) examined the impact of both experiencing victimization and multiple forms of victimization (poly-victimization) on self-esteem among adolescents using self-report measures. Participants were divided into three groups (non-victim, victim, and poly-victim). Participants indicating nine or more types of victimization were classified as poly-victims. Results indicated that poly-victims had significantly lower self-esteem (moderate effect size) and higher posttraumatic stress disorder symptoms than victims and non-victims.

Depression. Victims of bullying consistently demonstrate significantly higher levels of depressive symptomatology than non-involved peers (Barchia & Bussey, 2010; Fekkes, Pijpers, & Verloove-Vanhorick, 2004; Fleming & Jacobsen, 2009; Klomek, Marrocco, Kleinman, Schonfeld, & Gould, 2007; Malecki et al., 2014; Neary & Joseph, 1994; Salmon et al., 1998). This relationship has been shown to occur globally (Bond et al., 2001; Callaghan & Joseph, 1995; Due et al., 2005; Kumpulainen et al., 1998; Stapinski, Araya, Heron, Montgomery, & Stallard, 2015; Williams, Chambers, Logan, & Robinson, 1996).

Barchia and Bussey (2010) examined the process that led victimized students to experience symptoms of depression. Australian secondary school students completed a

questionnaire twice in a one-year period that measured peer victimization, depression, depressive rumination, self-efficacy to enlist support, and collective school efficacy to stop peer aggression. Rumination, collective school efficacy, and self-efficacy to obtain support from friends only partially explained the relationship between victimization and depression. Victimized students had a larger belief that neither students nor teachers were able to help stop victimization. This, therefore, prevented them from attempting to access friends and teachers for support, which ultimately led to their depressive symptomatology.

Bullying among adults has also been shown to be related to depressive symptoms and personal stress. Vartia (2001) measured stress and psychological ill-health among 949 men and women and found that both targets and observers of bullying reported higher stress reactions and lower self-confidence compared to individuals who reported no bullying in their workplace environment. Those who reported being victimized also reported higher levels of insomnia and higher use of sleeping pills compared to those who were not bullied. This finding highlights how bullying can indirectly affect uninvolved individuals.

Anxiety. Bullying is also associated with anxiety (Boulton & Underwood, 1992; Craig, 1998; Malecki et al., 2014; Stapinski et al., 2015; Swearer, Song, Cary, Eagle, & Mickelson, 2001). It is important to consider anxiety when exploring bullying because anxiety can lead to a heightened fear of future victimization, which is unpleasant and mentally draining (Rachman, 2004). Studies on the relationship between anxiety and victimization have indicated symptoms of anxiety to be 3.2-4.2 times more likely to occur in victims of bullying as opposed to those not involved in bullying (Kaltiala-Heino, Rimpela, Rantanen, & Rimpela, 2000; Salmon et al., 1998).

Social adjustment. Another short-term impact of bullying is poor social adjustment (Scholte, Engels, Overbeek, De Kemp, & Haselager, 2007). Social adjustment refers to self and peer acceptance, popularity, and likeability (Bouman et al., 2012). Research has shown

that victims of bullying exhibit poor social adjustment with feelings of loneliness, social withdrawal, social aversion, and absenteeism, and that they are more likely to leave school or work early (Boulton & Underwood, 1992; Campanini et al., 2012; Hawker & Boulton, 2000; Haynie et al., 2001; Ireland & Power, 2004; Nansel et al., 2001; O'Brennan, Bradshaw, & Sawyer, 2009; Randa & Wilcox, 2012; Rudolph et al., 2014; Schwartz, Lansford, Dodge, Pettit, & Bates, 2013). Poor social adjustment can also lead to poor academic or work performance (Glew, Fan, Katon, Rivara, & Kernic 2005; Ponzo, 2013; Salin, 2015; Sharp, 1995) and use of illegal substances (Kim et al., 2011; Niedhammer, David, Degianni, Drummond, & Philip, 2010; Radliff, Wheaton, Robinson, & Morris, 2012).

Victimization has also been commonly noted to lead to withdrawal loneliness (Boulton & Underwood, 1992; Hawker & Boulton, 2000; Slee, 1995). Delfabbro et al. (2006) examined the association between the nature and prevalence of bullying and victimization on psychosocial adjustment in Australian students. Self and teacher reports revealed that students who had been victimized reported higher levels of social alienation, poorer psychological functioning, and poorer self-esteem and self-image. Despite a small effect size, the results showed that those who were victimized by teachers were also more likely to underperform academically, with fewer intentions to complete school. Further, they were also more likely to be involved in high-risk behavior (e.g. gambling, drug use, and underage drinking).

Academic performance and work performance. Poor academic performance is well-recognized among victimized students (Ponzo, 2013). Reports have indicated that up to one-third of children who have been victims of bullying could have significant issues with personal and educational progress (Sharp, 1995). Holt, Finkelhor, and Kantor (2007) reported that children who experienced multiple victimizations also tended to experience more psychological distress and achieved lower grades than their peers. Similarly, Glew et al.

(2005) reported that lower academic achievement, feelings of being unsafe or not belonging, and feeling sad were all positively associated with being a victim of bullying as opposed to being a bystander (effect sizes were small to moderate). Despite this adverse effect of victimization on educational achievement, Rothon, Head, Klineberg, and Stansfeld (2011) found that the effects of bullying on individual's educational performance were lessened if they had social support, although effect sizes were small. These studies provide further support for the importance of research to better understand and address bullying.

When victimization leads students to withdraw and feel lonely, they also begin to lose interest in school, thereby impacting academic performance (Hoover, Oliver, & Hazler, 1992). Boulton and Underwood (1992) showed that victimization among middle school students led to feeling unsafe and fearful towards attending school. Similar results have also been seen in children in kindergarten (Kochenderfer & Ladd, 1996b) and secondary school (Rigby & Slee, 1993). Negative feelings toward the educational system can also lead to absenteeism and school dropout (Boulton & Underwood, 1992; Kochenderfer & Ladd, 1996a; Slee, 1994). The relationship between victimization and dropping out of school is important as this can lead to joblessness and even increase the likelihood of incarceration (Sum, Khatiwada, McLaughlin, & Palma, 2009).

Similar impacts have been reported for adults (Campanini et al., 2012; Salin, 2015). Nielsen and Einarsen (2012) conducted a meta-analytic review of individual level outcomes of workplace bullying. Their review showed that being a victim of bullying in the workplace was associated with burnout, intentions to resign, and a reduction in job satisfaction and commitment to the organization.

Substance use. Recent evidence has shown that bullying can also lead to substance use (Kim et al., 2011; Niemelä et al., 2011). Radliff et al. (2012) examined the relationship between substance use (alcohol, cigarettes, and marijuana) and roles played including bully,

bully-victim (experiencing bullying and victimization during the same time period) and not involved (was neither a bully or victim), by middle and high school students. Substance use over the past year was more prevalent among bullies and bully-victims than those who took the non-involved role.

Other studies corroborate these findings. Kelly et al. (2015) examined associations between substance use and participant roles (bully, victims and bully-victim). Australian students recorded baseline measures at age 13 and were re-examined at age 15, being asked to report if they engaged in any substance use over the past six months. Kelly et al. (2015) found an association between bullying and the use of alcohol and other drugs. Specifically, those in the bully-victim group had an increased risk of drinking and using cannabis, with the results showing large effect sizes. These findings highlight the association between drug use and bullying for both bullies and bully-victims. This supports the broader view that psychosocial contexts in which bullying occurs are detrimental for all involved.

Suicidal ideation associated with bullying. Among the various psychological distress effects related to being bullied, self-harm is considered the most severe. Deliberate self-harm and suicide have been studied extensively since the 1960s (Hawton, Rodham, & Evans, 2006). Considerable research exists on the relationship between bully victimization and suicidal ideation (Hay & Meldrum, 2010; Holt et al., 2015; Litwiller & Brausch, 2013; Liu & Mustanski, 2012; Namie, 2003; Van Wormer & McKinney, 2003).

Being a victim features heavily in the etiology of self-harm amongst adolescents and adults (Geoffroy et al., 2016; Pompili et al., 2008). Hinduja and Patchin (2010) showed that among 1,963 middle school adolescents (ages 10-16), 20% of those who reported being bullied had suicidal ideation, with 19% of that population also having attempted suicide. Espelage and Holt (2013) also reported similar results of suicidal ideation (14.7%) and attempted suicide (7.3%) among a sample ($N = 357$) of 10-13-year-olds. In comparison,

Nielsen, Nielsen, Notelaers, and Einarsen (2015) explored suicidal ideation among a sample of adults in the Norwegian workforce. They followed participants across three time points over 10 years. They found that the prevalence of suicidal ideation followed trends in the prevalence of bullying. At time one the prevalence of bullying was 4.3% and suicidal ideation was 3.9%; at time two rates had increased to 4.6% and 4.9% respectively; at time three rates were similar at time 1 being 4.2% and 4.0% respectively. Being the victim of bullying more than doubled the odds of suicidal ideation.

Further support for the relationship between suicide and bullying can be found in Geoffroy et al. (2016), who showed that, even after controlling for baseline suicidality, existing mental health problems and a series of other factors (socioeconomic status, intelligence, family function and structure, hostile-reacting parenting, material lifetime suicidal ideation/suicide attempt), suicidal ideation and attempted suicide were higher among those victimized (with a large effect size). At 13 years, victims' risk of suicidal ideation ranged from 11.6% to 14.7%, and suicide attempts at 15 years ranged from 5.4% to 6.8% compared to non-victims (2.4%–4.1% suicidal ideation and 1.6%–1.9% for suicide attempts).

Although these findings enhance understanding of the severity of bullying in the short-term, most studies operationalize bullying as the frequency of certain events. Malecki et al. (2014), however, propose that the relationship between socio-emotional outcomes of victimization should be explored not only by frequency but also by the intention and power differential of bullying. Malecki et al. (2014) assessed frequency, intentionality, and power differential as predictors of socio-emotional outcomes among a sample of seventh and eighth-grade students. Findings suggested that power differential and intentionality contributed more than frequency to anxiety, depression, and decreases in self-esteem (with a moderate effect size). Effects were particularly strong for depression especially among girls. Bauman, Toomey, and Walker (2013) have presented findings indicating that this depressive reaction

mediates the association between bullying and suicide. The definition encompassing frequency which is often employed only brings some negative effects to light but misses others. Despite these concerns, it is clear that bullying has significant effects. These short-term impacts are also important as the acute effects often become chronic or are strong risk factors for poor long-term outcomes. This includes suicide as research has found that adults who experienced bullying in their childhood were associated with a higher risk of suicide in adulthood (Klomek, Sourander, & Gould, 2010).

1.5. Long-Term Effects of Bullying

Bullying can also have significant and detrimental long-term effects on self-esteem, social adjustment, psychological distress, and physical and mental illness (Klomek et al., 2015). Exploring the long-term effects of bullying (which can occur years after the bullying has ceased) helps to identify the significant impact it can have on adults who were bullied as children and provides an added impetus to explore ways to reduce bullying.

Self-esteem. Low self-esteem has been shown to continue to impact victims well into adulthood. Esbensen and Carson (2009) conducted a longitudinal study examining the impact of repeated victimization. Information obtained from adolescent students using self-report questionnaires was gathered over three time periods (6-8 months between each data collection period). The results indicated that repeated victimization led to lower levels of self-esteem and self-efficacy (large effect size), even after controlling for prior levels of these traits. Overbeek, Zeevalkink, Vermulst, and Scholte (2010) conducted a similar study in which adolescents (11-16 years old) from the Netherlands completed one questionnaire per year for three years (2005, 2006, and 2007). They found that self-reported peer victimization was associated with lower self-esteem, although effect size was small. Isaacs, Hodges, and Salmivalli (2008) examined the long-term impact of bullying on self-esteem and depression. The results showed that adolescent experiences of bullying contributed to long-term

adjustment difficulties. Those who were bullied during adolescence and who perceived their families as being unsupportive had increases in depression, lower self-esteem, and negative views of adulthood. Conversely, when families were perceived as supportive, the impact on adjustment was diminished.

Life satisfaction. Low perceived life satisfaction in adults has also been shown to be associated with victimization in childhood. Takizawa, Maughan, and Arseneault (2014) examined midlife outcomes of childhood victims of bullying. The researchers compared data ($N = 7,771$) from a previous study in which parents of participants (aged 7 and 11 years) reported the exposure of their children to bullying with follow-up assessments of the former children conducted when they were between the ages of 23 and 50 years. The study showed that being bullied as a child was associated with lower life satisfaction, higher rates of depression, anxiety disorders, suicidal ideation, lack of social relationships, economic hardship, and lower perceived quality of life at age 50, albeit with small effect sizes. Nevertheless, given the substantial period between bullying and subsequent outcomes, these are important and noteworthy results.

Psychological distress. Focusing on long-term effects of bullying, the most widely explored research area has been psychological distress, often as an overarching construct which includes anxiety and depression (Haavisto et al., 2004; Klomek et al., 2008; Lereya, Copeland, Costello, & Wolke, 2015; Sourander et al., 2007). Psychological distress is frequently associated with bullying that impacts victims in both the short and long-term (Barchia & Bussey, 2010; Gini & Pozzoli, 2009; McDougall & Vaillancourt, 2015; Slee, 1995). Long-term psychological distress in victims of bullying has been shown to be directly related to both the severity and frequency of victimization at school age (Lund et al., 2009; Rigby & Slee, 1999). Sigurdson, Undheim, Wallander, Lydersen, and Sund (2015) found that both bully and victim roles led to long-term psychological distress. Consistent findings have

also been shown even after controlling for adult social class and parents' mental health (Lund et al., 2009).

Social adjustment. Some of the negative impacts on social adjustment due to bullying that have persisted into adulthood include long-term unemployment, loneliness, and difficulty maintaining interpersonal relationships (Gilmartin, 1987; Tritt & Duncan, 1997; Varhama & Björkqvist, 2005). Scholte et al. (2007) showed that children and adolescent victims of bullying were not able to react appropriately in social situations (based on various factors like shyness, help seeking, cooperation, insecurity, and aggression). This could lead to developing dysfunctional interactional styles, which could increase the likelihood of social adjustment issues in later life.

Bullying can also increase social maladjustment and increase the risk of illegal behavior in young adulthood (Wolke et al., 2013). Wolke et al. (2013) showed that compared to non-involved children, victims of childhood bullying had an increased risk for poor social adjustment in adulthood, even after controlling for family hardship and childhood psychotic disorders. Sigurdson, Wallander, and Sund (2014) examined the relationship between bullying at ages 14-15 years and general health and psychosocial adjustment in young adulthood (ages 26-27). This study showed that those involved in bullying either as a victim, bully, or both (bully-victim) in adolescence were more likely to have achieved lower education levels in young adulthood. Victims and bully-victims were also more likely to have poor general health and high levels of pain, lower job functioning, and higher rates of smoking and use of illegal substances. The long-term social adjustment impacts of bullying (e.g. depression, poor physical health, unemployment) are significant as indicated by the associated economic burden on society (Berto, D'Ilario, Ruffo, Virgilio, & Rizzo, 2000; Eriksen, Hogh, & Hansen, 2016; Wang, McPherson, March, Gortmaker, & Brown, 2011).

Physical and mental illness. Victimization can affect both physical and mental

health, although studies reporting physical illness do not typically specify the nature of physical illness (Allison et al., 2009; Sigurdson et al., 2014; Wolke et al., 2013). Bouffard and Koeppel (2014) examined the long-term physical and mental health consequences of early experiences of victimization among participants from the United States. Participants were first interviewed at “time one” (ages 12-17) and then followed up annually to “time six” (ages 18-23). This study showed that individuals who were victimized before the age of 12, especially those who experienced repeated bullying, were more susceptible to physical and mental health issues (including negative perceptions of health as well as alcohol consumption and smoking) in adulthood. Rigby (1999) also investigated longitudinal relationships between physical/mental health and bullying among Australian adolescents. They found that students who had been subjected to relatively high levels of victimization in the early years of high school showed significantly worse physical health when reassessed later in high school.

This section highlighted how bullying can significantly affect self-esteem, social adjustment, and physical and mental illness in the long-term (Bowes, Joinson, Wolke, & Lewis, 2016; Esbensen & Carson, 2009; Klomek, Sourander, & Elonheimo, 2015; Lund et al., 2009; Overbeek et al., 2010; Sigurdson et al., 2014; Wang et al., 2011). While the research within this thesis did not explore the short- and long-term effects of bullying, these findings are significant because they highlight the serious negative consequences of bullying even years after the bullying has discontinued. These effects can also be a burden on society, especially through increased use of mental health services, poorer physical health and lower productivity (Arseneault, 2016). It is, therefore, essential to pursue lines of research likely to inform policy and interventions to prevent bullying.

1.6. Age and the Impact of Bullying

Irrespective of age there is clear consensus that bullying is associated with a range of poor outcomes. While social cognitions may develop (explored further in section 2.3), these

negative outcomes appear to be consistent across the lifespan. In young elementary school children for instance, researchers have shown that victims of bullying can experience depression and anxiety (Craig, 1998). These findings have been replicated in adolescent and adult populations (Barchia & Bussey, 2010; Vartia 2001). Effect sizes are medium to large. In this respect, outcomes are universally bad, being more notable for similarities than differences. Path analysis by Barchia and Bussey (2010) indicates that these effects are mediated by the perceived ability of the victim to enlist support in the relevant social context. This is consistent with the belongingness hypothesis (Baumeister & Leary, 1995). This theory states that a sense of belonging, signified by perceived similarity with and support from group members, is a fundamental human need across the lifespan. There is substantial evidence of severe adverse consequences when this innate need is not met (Bartolo, 2019). Some researchers have gone further, suggesting that low belongingness is the single proximal cause of an innate depressive response (Cockshaw, Shochet, & Obst, 2014a; Cockshaw, Shochet, & Obst, 2014b). If this contention is correct, bullying is a direct cause of psychological harm as it is a clear indication of low social status and typically casts the victim as an out-group member. Also, however, this indicates that support from individuals playing other roles in the social context can not only substantially ameliorate the negative psychological impact of bullying but also undermine the modus operandi of much bullying behavior.

Bullying across the different ages is associated with other poor outcomes. One of these is poor social adjustment. For both younger and older children this may include poor academic performance (Glew et al., 2005; Ponzo, 2013) with evidence showing that up to one-third of secondary school children who have been victims of bullying have significant issues with personal and educational progress (Sharp, 1995). Similarly, in adults, poor social adjustment can lead to poor work performance (Salin, 2015) and use of illegal substances

(Niedhammer et al., 2010). The most serious impact of bullying that is consistent regardless of age is suicidal ideation and suicide. Research has shown a significant association between bullying and suicide in young children (Holt et al., 2015), adolescents (Litwiller & Brausch, 2013) and adults (Nielsen et al., 2015).

1.7. Overall Summary

Overall, when exploring bullying, one key consideration is how bullying is defined. Among many researchers in the field bullying is characterized by three factors: intent to harm, repetition, and imbalance of power. Having a good definition is particularly important because it can help differentiate bullying from other forms of behaviors. Bullying research is exceptionally important because it is a significant and pervasive phenomenon. The effects of the behavior can involve more than just the victim and these effects can be short-term (while the bullying is still occurring or soon after) and long-term (years after the bullying has discontinued). To try and better understand bullying, researchers have explored various factors that they believe lead to the negative behavior. Chapter 2 consolidates all this information in greater detail.

Chapter 2: Conceptualized Approaches to Bullying

Bullying is a complex phenomenon, affecting not only those who are victimized but also those not directly involved in the incident (Vartia, 2001; Wolke et al., 2013).

Researchers have attempted to understand why it occurs by exploring various factors including: participant roles; social cognitions; individual, family and teacher differences; and social ecological perspectives. This chapter consolidates empirical and theoretical research which contributes to understanding of bullying

2.1. Participant Roles in Bullying

Traditionally, bullying has been researched by examining the relationship between the bully and victim (Espelage & Swearer, 2003; Wolke, Woods, Stanford, & Schulz, 2001); however several current studies have explored other participant roles (Huitsing & Veenstra, 2012; Salmivalli et al., 1996b). Indeed, greater detail and insight can be achieved regarding the bullying process if researchers explore all participant roles. Figure 1 describes both the traditional and expanded approaches. This latter strategy may also provide further understanding into how each role impacts the others. Importantly, the present thesis adopts this expanded perspective.

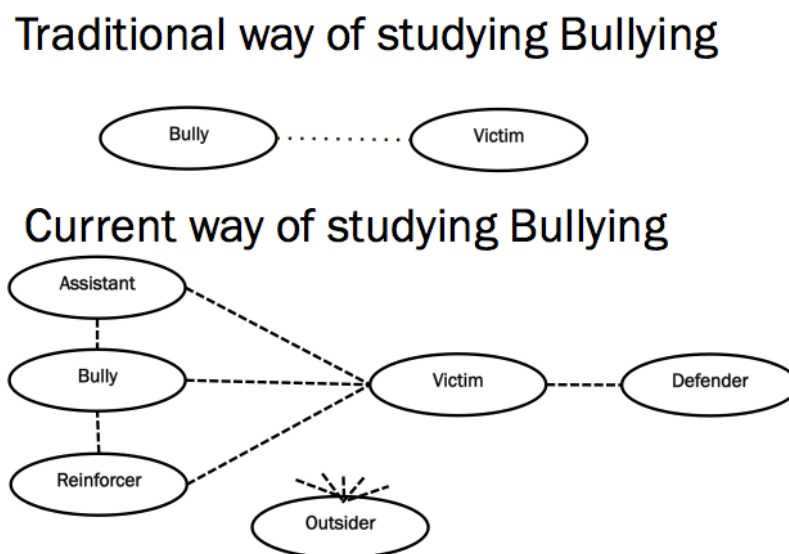


Figure 1. Traditional and current ways of studying bullying.

A significant study by Salmivalli et al. (1996b) examined childhood bullying from a social perspective. Their study included the roles of the bully, assistant, reinforcer, defender, outsider (i.e. bystander) and victim. To demonstrate that these roles are all involved in bullying, students aged between 12 and 13 years were asked to complete a questionnaire that evaluated the behavior of both themselves and each child within the classroom during bullying situations. The characterization of each role by Salmivalli et al. (1996b) can be found in Table 1. Providing these descriptions to participants allowed them to understand what each role involved, thereby facilitating more accurate and consistent participant reports regarding the various ways people can participate in bullying. Salmivalli et al. (1996b) were able to allocate 87% of participants to one of the six roles. The other 13% percent scored high on multiple roles and therefore were not able to be identified with one particular role.

Table 1

Descriptions of Participant Roles (Salmivalli et al., 1996b)

Participant Role	Description
Bully	Has an active, initiative-taking, ringleader role.
Assistant	Eagerly joins in the bullying when someone else initiates it.
Reinforcer	Offers positive feedback to the bullying by laughing, by encouraging gestures, or by just gathering around as an audience member.
Victim	Gets systematically attacked by others.
Defender	Comforts the victim or actively tries to make the bullying stop.
Outsider	Withdraws from bullying situations without taking sides with anyone.

Importantly, established roles are not static. Rather, people can have multiple roles based on specific relationships and contexts, as evidenced by the 13% of participants in the Salmivalli et al. (1996b) study who scored high in multiple roles. Huitsing and Veenstra (2012) used the Participant Role Scale (PRS) to explore whether the group process of

bullying could be explained using a social network perspective. Children were given a list containing the names of classmates and were asked to assess their classmates on the behavioral dimensions of each particular role. This information was used to ascertain relationships between each child within a classroom. Results indicated that children did not have a fixed role but rather that roles varied depending upon social contexts. For example, in one instance a bully harassed classmates and the others join in, while at a different time this ringleader became a follower of other bullies. Bullies also acted as assistants to other bullies. The results highlighted the existence of in-group and out-group members and that in-group members were supported even if the behavior was not prosocial. The importance of this study was that it provided evidence of a group process in bullying, demonstrating that people play different roles depending on in-group or out-group status.

The increasing support for a substantial role of group processes in determining prosocial and anti-social behaviors has important implications for bullying research. Specifically, these findings suggest a substantial influence of both others in the immediate social context and perceived group norms. The research reported in this thesis, therefore, investigated the perceptions of individuals when playing a range of roles in the broader social contexts in which bullying occurs. This included investigation of perceptions regarding social influence, responsibility, and culpability.

2.2. Social Cognitions of Bullying

There is ongoing research examining predictors that lead people to engage in specific participant roles in bullying incidents. A recent meta-analysis by Cook et al. (2010) explored both individual and situational predictors of bullying and victimization in childhood and adolescence. Individual factors included gender, age, externalizing behavior, internalizing behavior, social competence, self-related cognitions, other-related cognitions, social problem solving, and academic performance. Contextual factors included family/home environment,

school climate, community factors, peer status and peer influence. Their meta-analysis showed that the strongest individual predictors among the bullying group were externalizing behavior (“defined as actions that are undercontrolled in nature and characterized by a host of defiant, aggressive disruptive, and noncompliant responses”, p. 67) and having other related cognitions (“defined as children’s thoughts, beliefs, feelings, or attitudes about others, including normative beliefs about others, empathy, and perspective taking”, p. 67). Different predictors emerged for the victim and the bullying groups. The strongest contextual predictor for the bullying groups’ behavior was peer influence. The strongest individual level predictor among the victim group was social competence while at a contextual level it was peer status. All reported predictors were of medium effect size.

The review by Cook et al. (2010) presented two important findings. Firstly, both individual and contextual characteristics are associated with bullying and therefore both should be explored in bullying research. Secondly, self-perceptions are highly relevant to understanding participant role behavior in bullying incidents. The four common predictors of bullying behavior as identified by Cook et al. (2010) are commonly explored within the literature. More specifically, the literature indicates that there is an association between externalizing behavior and a lack of guilt (Ferguson, Stegge, Miller, & Olsen, 1999; Stuewig, Tangey, Heigel, Harty, & McCloskey, 2010). Literature exploring factors associated with other-related cognitions shows that holding a more positive attitude towards bullying is commonly associated with the bully role (Boulton, Bucci, & Hawker, 1999; Rigby, 2005). Peer influence literature shows that peer groups influence the level of bullying (Espelage, Holt, & Henkel, 2003). Taken together, these findings suggest that guilt, responsibility, influence, and attitudes need to be explored further to understand why people engage in specific bullying behaviors. Studies relating to these four factors are discussed in greater detail in their respective sections below.

Exploring people's perceptions of their behavior relating to guilt, responsibility, influence and attitudes could help uncover why people engage in specific roles.

Understanding this would help with creating a profile of each role involved in bullying incidents. Assessing these perceptions using the participant roles established by Salmivalli et al. (1996b) is a way of exploring bullying that may also help to create a deeper understanding of these roles while aiding in the creation of future interventions aimed at reducing bullying. An important first step then is to examine factors such as guilt, responsibility, influence and attitudes towards bullying and explore how these are implicated in actual bullying. These factors are each examined in detail below.

Guilt. Guilt is aroused when a person attributes their behavior that has resulted in a negative outcome to internal, unstable, specific, and controllable causes (Tracy & Robins, 2004). Feelings of guilt indicate that a person believes they have violated either their own or society's standards of conduct (Ferguson, 2005). Guilt is associated with the tendency to feel responsible and to try and fix any harm committed (Tangney, Stuewig, & Mashek, 2007). Guilt is often researched alongside shame due to the fact that both emotions are believed to result in people either having a negative or prosocial role in bullying situations (Mazzone et al., 2018; Menesini & Camodeca, 2008; Olthof, 2012).

Alongside guilt, shame is an emotion that is aroused due to negative evaluations of the self (Tangney & Dearing, 2002). Shame proneness involves focusing on the implications of a negative event and associating it with their identity (Ferguson, 2015). Shame and guilt share a number of key features. They are both moral self-conscious emotions that involve internal attributions to negative events or outcomes (Tangney & Dearing, 2002). While guilt and shame are commonly researched together, guilt focuses on a person's cognitions about engaging in a specific negative behavior, while shame is based on how a person believes others will perceive them based on the behavior (Roos, Hodges, & Salmivalli, 2014). In the

following sections, both emotions are discussed, although shame is not part of the measure designed for this study.

The omission of shame in the measure is due to the difference in focus when experiencing shame or guilt. Understanding whether individuals playing specific participant roles focus on the negative aspects of their behavior based on the presence of others, will help with a better understanding of bullying than focusing on shame. The latter would just tell us how a person saw themselves while playing that participant role.

Shame and guilt have consistently been examined by administering measures that explore fictional situations (Mazzone et al., 2018; Menesini & Camodeca, 2008; Olthof, Schouten, Kuiper, Stegge, & Jennekens-Schinkel, 2000; Roos et al., 2014). A notable study to use this methodology on children (aged 9-11) was undertaken by Menesini and Camodeca (2008). They used the Shame and Guilt Questionnaire (developed by Olthof et al., 2000) to explore these two emotions and their relationship to the roles of bullies, victims, non-involved children and those who engage in prosocial behavior. Prosocial behavior was measured using two items, namely “who in your class tries to console other kids when they feel sad?” and ‘who in your class helps other kids?’ (p. 188). Peers nominated classmates to one of these roles and then completed the Shame and Guilt Questionnaire. The questionnaire consists of 10 fictional situations (five situations exploring only shame and five situations exploring both shame and guilt) where the intentions of the protagonists are ambiguous. The fictional situations are not bullying related. To explore whether personal responsibility also played a role in shame and guilt, Menesini and Camodeca (2008) added four new situations, two of which described events where there was intentional harm (measuring shame and guilt) and two where someone was intentionally attacked (measuring shame). The results revealed that in shame and guilt situations, prosocial children (i.e. defenders) felt more ashamed and more guilty than bullies and non-involved children. Non-involved children had similar levels

of shame and guilt as bullies. In shame-only situations, victims scored higher than non-involved children. These findings suggest that those who engage in more prosocial behavior tend to feel more shame and guilt in situations that are likely to elicit those emotions. A limitation to this study which also occurs in the extant bullying research is that the roles that people play in one bullying situation are assumed to be common to all bullying situations.

Roos et al. (2014) conducted a longitudinal study over a six-month period using fictional situations to explore the relationship between self-reported shame and guilt and peer-reported aggressive, prosocial and withdrawn behaviors. Roos et al. (2014) measured shame and guilt by using the Test of Self-Conscious Affect for Children. This measure provides participants with 15 scenarios (10 negative and five positive) relating to everyday situations (e.g. “You trip in the cafeteria and you spill your friend's milk”), and responses are rated on a five-point Likert scale (from *not at all likely* to *very likely*). The results showed that feelings of guilt predicted higher levels of prosocial behavior and lower levels of engaging aggressively, while feelings of shame predicted lower levels of engaging in prosocial behavior. People’s roles also remained stable over a six-month time period. A limitation of this study was that the items within each role were broad. For example, ‘someone may help others’ (prosocial item) and also ‘when teased strikes back’ (aggression item). Having such broad items when categorizing participants makes it difficult to know what is being measured, which is therefore a fundamental problem. Further, the use of fictional scenarios may obscure nuanced developmental changes.

A consistent issue with the studies exploring shame and guilt was that they did so by eliciting these emotions using fictional situations, most of which were not related to bullying. This was despite categorizing participants into groups relating to bullying. Given that research confirms a role of specific group context in determining behavior, the extent to which shame and guilt elicited by fictional situations will be associated with actual behaviors

is unclear. Measuring these emotions after a bullying incident with items relating to that incident will likely provide a better understanding of how people felt within each participant role. This is the approach taken in the programme of research reported in this thesis.

Responsibility. In bullying research responsibility is a concept commonly explored in relation to individuals taking action and defending the victim or trying to stop the bullying (Menesini, Codecasa, Benelli, & Cowie, 2003a; Morrow & Downey, 2013; Ttofi & Farrington, 2011). In social situations, some factors make people feel more or less responsible for taking a specific action. Pozzoli and Gini (2013) conducted a study to explore how the social context in which students live out their everyday experiences at school-in terms of friend relationships-is related to two important correlates of defending behavior, namely attitudes towards bullying and sense of responsibility for intervention in favor of the victim. (p. 162)

The study included 1,644 Italian students between 10-13 years old. The authors measured attitudes towards bullying by having participants rate (on a five-point Likert scale) 10 statements about bullying such as, “bullying may be fun sometimes” (p. 249). Personal responsibility to intervene in favor of the victim was measured by a 4-item scale. Peer nominations were used to explore bullying behavior, defending the victim and who their closest friends were. The results showed that girls scored higher than boys in defending behavior and attitudes against bullying. Individual responsibility was negatively associated with bullying and positively associated with defending behavior. Furthermore, an individual’s sense of responsibility to intervene in bullying episodes was positively predicted by their friends’ perceived sense of responsibility to intervene.

From a social perspective, the level of responsibility one feels can be attributed to bystander apathy: the tendency for people to intervene less often in situations where more

people are present (Darley & Latane, 1968). Sentse, Scholte, Salmivalli, and Voeten (2007) explored peer acceptance and rejection of bullies and victims. They found that in classrooms where bullying was normative adolescents who bullied were less likely to be rejected or were even liked by their peers (i.e., positive scores on peer preference). The same was true for victimization, although victims still had low scores on peer preference even when victimization was normative. (Sentse et al., 2007, p. 1009)

These findings further support the influence of perceived norms, even in situations where these norms are at odds with their personal beliefs and attitudes (Asch, 1951; Milgram, 1974). Moreover, Whatley, Webster, Smith, and Rhodes (1999) demonstrated this as individuals avoided feelings of shame and fear via diffusion of responsibility. A critical area that has been not explored in much depth is how feelings of responsibility can influence people to behave in anti-social ways when taking various roles within a bullying incident.

Influence. Bullying often occurs in the presence of others as evidence shows that peers are present 85% of the time (Craig & Pepler, 1997). Besides the bully and victim these peers can play roles that assist the bully, reinforce the behavior of the bully, defend the victim or just observe the incident as an outsider (Salmivalli et al., 1996b). Furthermore, each role can have a significant influence on other roles (Cialdini & Goldstein, 2004). For example, some people might conform and take up a specific role because they feel pressure from friends to behave in a particular way (Bordens & Horowitz, 2001). They may also be instructed by an authoritative figure to take up a specific role or they may diffuse their responsibility to intervene on behalf of the victim based on the behavior of others (Salmivalli et al., 1996b; Thornberg, 2007). This might be because people do not want to be put in that spotlight of being associated with victim (Thornberg, 2007). What is commonly explored within this aspect of bullying is how the roles held by peers can influence the behavior of the bully to continue or stop bullying others (Burns, Maycock, Cross, & Brown, 2008).

A study by O'Connell, Pepler, and Craig (1999) examined the peer processes that occur in bullying incidents to assess the influence peers have on the role of the bully. Using self, peer and teacher reports, they established who often played the role of the bully, victim and bully/victim by recording 120 hours of video and audio during times of play. The findings showed that the average number of peers present was four and that incidents lasted anywhere between 7 seconds and 12 minutes. Peers present in these incidents spent 20.7% of that time reinforcing the bully by physically or verbally joining in and 53.9% of the time passively reinforcing the bully by just watching the incident while only 25.4% of the time peers intervened to help the victim. These findings, however, do not explain why individuals assumed particular roles. The study also did not explore whether individuals in any of these roles felt that they influenced the role of others or whether others may have influenced their adopted roles. There is, therefore, a need for further research exploring cognitions and perceived social influence associated with the adoption of the range of roles identifiable in bullying scenarios. This thesis will address this gap by exploring whether individuals in any of these roles felt that they influenced the role assumed by others and conversely whether others may have influenced their adopted roles.

Humans are fundamentally motivated to foster and maintain meaningful social relationships. Further, an individual's self-concept is contingent on these relationships (Cialdini & Goldstein, 2004). This also applies to bullying situations. Sandstrom, Makover, and Bartini (2013) explored the differences between children's perceptions of bullying incidents and those of their peers. The study found that children were less likely to defend the victim and more likely to join in the bullying when they overestimated their peers' approval of bullying. This finding is important because it shows how people can be influenced to behave a specific way by misinterpreting their peers' perceptions.

To better understand the effect of social influence, Burns, Cross, and Maycock (2010) conducted a study exploring how friends influence bullying behavior. In order to identify students as bullies, the researchers had participants self-report whether they bullied others. Following this, the researchers conducted a one-on-one interview with each participant in order to better understand what influenced them to continue or stop bullying. They found that in some instances students continued to bully others if they felt they were getting support from their friends. In other instances, the bully would change friendship groups in order to stop being influenced to bully others. Similarly, Burns et al. (2010) found that some students stopped bullying others if they felt that they were not being supported by their friends. These findings further highlight that peers can influence the behavior of individuals.

A limitation of much previous research, however, is a focus on influences which directly precipitate adoption of the bully role without consideration of the range of interrelated roles forming the context in which bullying occurs. For example, the roles adopted by others may influence someone to take up the role of the assistant. It may be valuable, therefore, to ask participants about perceptions which influence the adoption of a range of roles, especially given consistent evidence indicating the positive impact of prosocial norms. Research reported in this thesis explores these questions.

Attitudes. People's attitudes towards bullying is another key factor that is commonly explored in bullying research. Attitude refers "to a general favorable, unfavorable, or neutral evaluation of a person, object or issue" (Petty & Cacioppo, 2012; p. 25). Researchers believe that examining people's attitudes towards bullying could explain at least some of the variance associated with what role they are more likely to play (Salmivalli & Voeten, 2004). Attitudes towards bullying are typically measured by providing participants with a definition of bullying, then statements relating to bullying and asking participants how much they agree or disagree with each statement (Boulton et al., 1999; Rigby & Slee, 1991; Salmivalli & Voeten,

2004). Researchers have shown that while most children hold negative attitudes towards bullying, those with stronger negative attitudes tend to engage less in the role of the bully than children with slightly more positive attitudes (Boulton et al., 1999; Rigby, 2005; Van Goethem, Scholte, & Wiers, 2010).

A significant study by Salmivalli and Voeten (2004) explored attitudes towards bullying and their relationship to classroom norms and participant roles. Participants were categorized into one of the participant roles involved in bullying situations (excluding victims) and asked questions relating to their attitudes towards bullying (e.g., “one should try to help the bullied victims” p. 249), and classroom behavior norms. Classroom behavior norms were examined by providing participants with five situations (e.g. “a classmate making friends with the bullied victim” p. 249) and asking them to answer what they thought would happen based on expected classroom standards. Multi-level modelling revealed that the roles of the defender and outsider were associated with having an anti-bullying attitude, while the roles of the bully, assistant and reinforcer were found to have the opposite attitude, although the effect sizes were moderate at best. There were also differences in behaviors among each participant role within each classroom, suggesting that factors other than attitudes could affect why a person engages in a specific behavior.

As Salmivalli and Voeten (2004) reported only moderate effects relating to attitudes, a significant proportion of the variance associated with participants’ behaviors remains unexplained. The relationship between people’s attitudes and their behavior could be explained by several factors. For the bully it may be that they lack empathy for the victim (Pöyhönen, Juvonen, & Salmivalli, 2010). The assistant and reinforcers decision to continue to act anti-socially could be due to their fear of being excluded from the social group or being targeted themselves if they do not conform (O’Connell et al., 1999; Osumi, Osawa, & Imai, 2016). The outsider might have empathy for the victim, but their self-efficacy to defend may

be lacking preventing them from taking on a more active role (Gini, Albiero, Benelli & Altoe, 2008).

What all previous studies on attitudes towards bullying have in common is that they use peer or self-reports to indicate who plays a specific role (e.g. bully) in bullying incidents in general. According to Baldry (2004), “to learn about attitudes towards bullies and victims, measurements should refer to specific bullying episodes” (p. 592). Therefore, it may be better to explore people’s attitudes towards bullying by focusing on their roles in specific incidents – particularly since this role may vary across bullying situation.

2.3. The Impact of Age on Social Cognitions

The understanding of what constitutes bullying behavior varies between age groups. Younger children (4 to 8-year-olds) typically see bullying in one dimension, that is through physical aggression. In contrast, from mid-adolescence onwards (≥ 14 years) a greater number of manifestations are considered. These include aggressive vs. non-aggressive behavior, physical vs. non-physical bullying, power imbalance and repetition (Monks & Smith, 2006). Importantly for the present program of research, from mid-adolescence onwards this conceptualization remains fairly consistent. This is likely because schemas regarding what constitutes bullying start to form at an early age, with half of students in the first year of primary school able to spontaneously provide a definition (Monks & Smith, 2006). However, there are still differences in the understanding of bullying as a function of developmental stage and therefore it is surprising that there is little literature comparing or reviewing interventions across age groups. Rather, the existing literature base tends to focus upon social cognitions within particular age groups and contexts. Nevertheless, it is likely that practitioners implementing anti-bullying interventions make adjustments based on their experience to tailor programs depending upon both developmental stage and social context.

It might be speculated that a sense of social responsibility may increase with age, however this is not borne out by empirical findings. An Australian study of early adolescents, for example, reported positive associations between age and all aspects of moral disengagement (Robson & Witenberg, 2013). Further, a large study of Canadian students (grades 4 to 11), indicated that there was not a greater propensity for bystanders to take prosocial action as they matured (Trach, Hymel, Waterhouse, & Neale, 2010). In fact, there was a greater chance of students reporting that they did not take action as age increased. There was also a greater propensity for them to ignore or avoid the victim, thus exacerbating the impact of bullying. One explanation may be the central salience of friendship groups and cliques in the identity-formation developmental stage associated with late adolescence and adulthood. Some evidence supports this contention. Flannery and Smith (2017), reported that while social perspective-taking ability increase with age through high school, the tendency to use this ability decreases. This effect was greater among boys with more stereotypical gender beliefs. The scales measuring social cognitions in bullying reported in subsequent chapters may be useful for further investigating such effects.

2.4. Individual, Family, and Teacher Differences Associated with Bullying

While a better understanding a person's social cognitions may explain the roles in which they engage, examining the relationship between individual differences and bullying is also an important component in bullying research and plays a key role in identifying the likelihood that a person will fill a particular role. Individual bullying roles are commonly associated with various factors such as gender, age, socioeconomic level, teacher perceptions of bullying, family environment, parenting style and social group. The following section reviews the literature in these areas to illuminate how various factors are related to bullying.

Gender. The literature has documented that males and females engage in different types of bullying (Carrera Fernandez, Fernandez, Castro, Failde Garrido, & Otero, 2013; Fox,

Jones, Stiff, & Sayers, 2014; Harris & Knight-Bohnhoff, 1996; Jansen et al., 2011; Menesini et al., 1997; Rivers & Noret, 2010; Salmivalli et al., 1996b; Smith et al., 2002; Wimmer, 2009). Identifying gender differences in bullying is important because it allows researchers to better understand the way that males and females behave, which could ultimately help to focus attention toward these specific areas when creating bullying intervention programs.

Research indicates that males are more likely to engage in physical forms of bullying whereas females engage in more verbal, relational and cyber-bullying (Björkqvist, Lagerspetz, & Kaukiainen, 1992; Cook et al., 2010; Vaillancourt et al., 2010). Hemphill, Tollit, and Kotevski (2012) examined the prevalence of three subsets of bullying. These were traditional direct face to face bullying, cyber-bullying, and relational aggression (harming the victims social standing) among male and female high school students. The study found that the most common form of bullying in grades 9-11 (14-17 years of age) was relational aggression, with up to 72% of boys and 65% of girls in grade 9 reporting that they had engaged in relational aggression. Also, in grades 9-11, rates of both traditional bullying perpetration and relational aggression were higher in boys (27-48% and 64-72%) than girls (14-26% and 47-65%), whereas cyber-bullying victimization in grades 9 and 10 were higher in girls (26-36% and 17%-21%) than boys (17-21% to 12%).

Research with preschool children has shown similar findings. Ostrov and Keating (2004) examined the differences in aggression among preschool children and found that females displayed more relational aggression while males showed more physical and verbal aggression. In general, both genders received more physical and verbal aggression from male peers and more relational aggression from females. Teachers' reports corroborated these results.

A cross-national examination of gender differences in bullying has also shown similar findings. A study published by the World Health Organization (WHO) found teasing (79%

vs. 67%) and spreading rumors (72% vs. 63%) were more prevalent in females than males while physical bullying was more common in males (around 45%) than females (around 21%; Craig & Pepler, 2003). The WHO study deserves special consideration because it sampled participants from 36 countries. Together, these studies have indicated that there are differences in the prevalence of specific types of bullying among males and females, and that these differences are consistent across countries.

Researchers have attempted to explain why there are gender differences in bullying. Cairns and Cairns (1994) revealed that males spend more time with same-sex peers in physical activities such as sports and games, while females spend more time socializing verbally with their same-sex peers (Besag, 2006; Craig & Pepler, 2003; Yang, Kim, Kim, Shin, & Yoon, 2006). Moreover, whereas males engage in more physical activities which may lead them to become more physically aggressive (Cairns & Cairns, 1994), females are less physically aggressive and employ more indirect aggression in social relationship situations such as malicious gossiping, manipulation, and exclusion (Carbone, Esbensen, & Brick, 2010; Crick & Grotpeter, 1995; Carrera Fernandez et al., 2013; Lagerspetz, Björkqvist, & Peltonen, 1988). Overall, the findings on gender and bullying indicate that there are gender differences in bullying and the importance of taking this into consideration when examining bullying.

Developmental age. Age has been shown to play a significant part in childhood bullying, which tends to occur more commonly in the later years of primary school and early years of secondary education (Fitzpatrick, Dulin, & Piko, 2007). Gregg and Shale (2013) stated that this was due to the development of different drives and self-regulatory skills that make it difficult to express certain feelings, see others' points of view and understand the consequences of one's actions. This disparity in prevalence was evident in a study by Hazler, Hoover, and Oliver (1991), who showed that bullying was most prevalent in grades seven to

nine (47%) and four to six (31%), but least prevalent in grades one to three (13%) and grades ten to twelve (9%). Due et al. (2005) and Lien and Welandervatn (2013) also found that rates of bullying in the early years of secondary school declined as adolescents moved to higher-year levels. Although the current research within this thesis did not explore the general prevalence of bullying across developmental age, these findings show that age has played a significant role in the prevalence of bullying.

Dispositional traits associated with bullying. A fundamental aspect of research into bullying has been to characterize each bullying role in terms of various dispositional traits. Researchers have associated dispositional traits with different roles to further understand why people may be more likely to become victims or bullies (Seigne, Coyne, Randall, & Parker, 2007; Slee & Rigby, 1993; Sutton & Keogh, 2000). Dispositional research is a significant part of the psychological literature within bullying but has been limited, mostly only examining the roles of the bully and victim (Book et al., 2012; Cook et al., 2010; Gini et al., 2007; Glaso, Matthiesen, Nielsen, & Einarsen, 2007; Ladd & Kochenderfer-Ladd, 2002; Lee & Ashton, 2014; Menesini, Camodeca, & Nocentini, 2010; Pronk, Olthof, & Goossens, 2015). Common traits used to describe each role have included the big five personality traits (openness, conscientiousness, extraversion, agreeableness, and neuroticism), and the dark triad traits (Machiavellianism, narcissism, psychopathy). In the section below, the association between bullying and each of these traits is explored.

Big five personality traits. The big five personality traits are openness (being curious, original, intellectual, creative, and open to new ideas), conscientiousness (being organized, systematic, punctual, achievement-oriented, and dependable), extraversion (being outgoing, talkative, sociable, and enjoying social situations), agreeableness (being affable, tolerant, sensitive, trusting, kind, and warm), and neuroticism (being anxious, irritable, temperamental,

and moody) (McCrae & Costa, 1987; Glaso et al., 2007; John, Donahue, & Kentle, 1998; John & Srivastava, 1999).

Examinations of bullying using the big five personality traits have shown that each bullying role is associated with a different personality profile (Bollmer et al., 2006; Book et al., 2012; Tani et al., 2003), represented in Table 2. Consistently, bullies score low on both agreeableness and conscientiousness (Bollmer et al., 2006; Book et al., 2012; De Bolle & Tackett, 2013), which is not surprising because this indicates a fixation towards a person's interest and goals while also lacking sympathy toward the suffering of others (Costa & McCrae, 1992). Moreover, low conscientiousness is also related to lower levels of guilt and greater physiological arousal (Bollmer et al., 2006).

Table 2

Big Five Personality Characteristics Associated with Participant Roles

	Openness	Conscientiousness	Extraversion	Agreeableness	Neuroticism
Bully	Low ³	Low ^{1,2,3}	Low ²	Low ^{1,2,3}	
Victim		Low ^{1,3,4}	Low ^{4,5}	Low ^{3,4,6}	High ^{1,3,4,5}
Defender				High ⁶	

Note. 1. Bollmer et al., 2006; 2. Book et al., 2012; 3. De Bolle and Tackett, 2013; 4. Glaso et al., 2007; 5. Rigby and Slee, 1993; 6. Tani et al., 2003.

In contrast, research investigating associations between the role of victim and the big five personality traits has yielded inconsistent findings (Bollmer et al., 2006; De Bolle & Tackett, 2013; Tani et al., 2003). Some studies have found two personality traits associated with the victim while others have found more. A study by Bollmer et al. (2006) found a low score on conscientiousness and a high score on neuroticism predicted victim status. This suggests that victims might act anti-socially which may incite others to bully them. De Bolle and Tackett (2013) explored the roles of the bully, victim, bully-victim and uninvolved participants (outsiders), and reported that both the bully and victim roles had low scores for

conscientiousness and agreeableness. Victims also reported a high neuroticism score. Having a low agreeableness score would indicate a fixation on personal interests and goals, while also lacking sympathy toward the suffering of others (Costa & McCrae, 1992). While lacking sympathy toward the suffering of others has been associated with the role of the bully (Gini et al., 2007; Olweus, 1993), a negative association for victims might indicate that they are more competitive and less likely to conform to social standards, thus eliciting victimization (Ehrler, Evans, & McGhee, 1999).

Glaso et al. (2007) compared victims of bullying with non-victims and found victims to have low scores on extraversion, agreeableness, and conscientiousness and a higher score on neuroticism. A low extraversion score has been associated with a lack of involvement in social engagements (Costa & McCrae, 1992). The positive correlation between victims and neuroticism indicates a high level of emotional instability which itself can lead to further victimization (Schwartz, Proctor, & Chien, 2001). Bollmer et al. (2006) found that scoring low on conscientiousness and high on neuroticism led to higher victimization due to the experience of adverse effects during a conflict. Rigby and Slee (1993) only examined extraversion and neuroticism and found that victims had a low score on extraversion and a high score on neuroticism. The profile of a victim therefore consists of someone who does not engage in usual social engagements, is highly anxious, acts anti-socially and is less likely to conform to social standards (Bollmer et al., 2006; Costa & McCrae, 1992; De Bolle & Tackett, 2013; Ehrler et al., 1999; Glaso et al., 2007; Schwartz et al., 2001). Not engaging in the general social engagements or conforming to social standards makes them distinct in a social group and may lead to increased vulnerability for victimization.

A key study examining the association between the big five personality traits and bullying roles was Tani et al. (2003), who explored the roles of the pro-bully (bully, assistant, and reinforcer combined into one role), victim, defender, and outsider. Their study found that

pro-bullies were lower than defenders in agreeableness and higher than defenders on neuroticism. Defenders scored significantly higher on agreeableness than all other roles, and lower on neuroticism than pro-bullies and victims. Moreover, victims scored significantly higher than defenders and outsiders on neuroticism and lower than defenders and outsiders on conscientiousness. Defenders and outsiders were less likely to be self-conscious or have difficulty regulating their own emotions. This helps explain why they have been shown to have a lower score on neuroticism compared to the bully and victim, although the role of the defender was found to have the lowest score (Tani et al., 2003). Bollmer et al. (2006) showed that scoring low on conscientiousness and high on neuroticism led to higher victimization due to experiencing adverse effects during conflict. Outsiders scored significantly lower than defenders on extraversion and agreeableness and significantly lower on extraversion than the pro-bully group. High levels of agreeableness are also associated with being more empathetic to others' needs (Barbaranelli, Caprara, Rabasca, & Pastorelli, 2003; Muris, Meesters, & Diederens, 2005), which could explain why defenders would help others. The feeling that they need to help others and having high self-esteem may aid in their ability to defend (Salmivalli, Kaukiainen, Kaistaniemi, & Lagerspetz, 1999). The opposite may be true for outsiders, with their low extraversion and agreeableness scores, as they would want to remain outside due to a lack of empathy or sympathy towards their victims (Sutton, Smith, & Swettenham, 1999b).

Lastly, few studies have reported associations between bullying roles and openness. De Bolle and Tackett (2013) reported that the roles of bully was negatively associated with the openness trait. This associations may suggest that bullies may not be creative in solving problems (McCrae & Costa, 1987). In summary, there are many problems associated with the examination of bullying using the big five personality traits and there are only a limited number of studies and significant findings (Bollmer et al., 2006; Book et al., 2012; De Bolle & Tackett, 2013; Glaso et al., 2007; Rigby & Slee, 1993; Tani et al., 2003).

Dark triad traits. The traits Machiavellianism, narcissism, and psychopathy have been labelled “the dark triad” because of their association with socially aversive behavior (Paulhus & Williams, 2002). The Machiavellianism personality trait is characterized as someone having a cynical worldview, lacking morality, and an ability to manipulate others to achieve their own goals (Christie & Geis, 1970). Narcissism is associated with a sense of entitlement, lack of empathy, self-centeredness, selfishness, hostility, and aggressive and controlling behavior (Barry, Frick, & Killian, 2003). Psychopathy is characterized by impulsivity, callous unemotional traits, and egoism (Baughman, Dearing, Giammarco, & Vernon, 2012). These three traits are clustered together as they have been shown to have a modest correlation, however each is expressed by distinct socially aversive behaviors (Paulhus & Williams, 2002).

The two most popular instruments used when researching the dark triad traits are the “Dirty Dozen” (Jonason & Webster, 2010) and the “Short Dark Triad” (SD3; Jones & Paulhus, 2014). The “Dirty Dozen” is a short, four-item per triad instrument, whereas the SD3 is a 27-item instrument which captures the constructs better (Furnham, Richards, & Paulhus, 2013). Baughman et al. (2012) were the first to directly examine the relationship between the dark triad personality traits and bullying behaviors. While all three traits were found to have a low to moderate correlation to bullying behaviors, the most significant findings were that Machiavellianism correlated strongly with direct verbal behavior (openly confrontational behaviors), narcissism correlated moderately with indirect bullying behaviors (non-confrontational methods), and psychopathy correlated strongly with direct bullying (both physical and verbal bullying). Moreover, Baughman et al. (2012) found males to have both higher rates of bullying across all forms of bullying and higher scores on all three traits than females.

The combination of big five personality and dark triad traits. Previous research has not studied the relationship between the big five personality traits and the dark triad traits together on different bullying roles. Despite this, literature has highlighted possible overlap between the big five personality traits and the dark triad traits (Jakobwitz & Egan, 2006; Jonason, Li, & Teicher, 2010; Miller et al., 2010; Nathanson, Paulhus, & Williams, 2006; Paulhus & Williams, 2002). In general, the three dark triad traits have been associated with low agreeableness and conscientiousness (Jakobwitz & Egan, 2006; Lee & Ashton, 2005; Lynam et al., 2005; Paulhus & Williams, 2002). These three dark triad traits are non-coincidentally associated with the bully role (De Bolle & Tackett, 2013; Tani et al., 2003). This is not surprising as low agreeableness has been related to being selfish, stubborn, demanding, headstrong, impatient, intolerant, outspoken, hardheaded, and argumentative (Costa, McCrae, & Dye, 1991), whereas low conscientiousness predicts having low levels of guilt (Bollmer et al., 2006; De Bolle & Tackett, 2013). Low agreeableness and conscientiousness have further been associated with the role of victim (De Bolle & Tackett, 2013). To date, little research has investigated the level of association between victim status and dark triad traits

Socioeconomic level. Factors such as socioeconomic level play an important role when trying to understand why people engage in particular behaviors. Understanding the relationship between socioeconomic level and bullying could also help target risk factors to prevent people from becoming either bullies or victims. Studies have indicated that bullying is more likely to take place among those who are from low socioeconomic statuses (Tippett & Wolke, 2014).

Associated with low socioeconomic status are greater levels of sibling violence (Eriksen & Jensen, 2006), higher exposure to domestic violence (Cunradi, Caetano, & Schafer, 2002; Garbarino, 1992), more hostile home environments and harsher punishments (Straus & Stewart, 1999; Woodworth, Belsky, & Crnic, 1996), and authoritarian parenting

styles (Bayley & Schaefer, 1960; Glasgow, Dornbusch, Troyer, Steinberg, & Ritter, 1997). Bandura (1978) found that a social learning perspective could explain the association between bullying and these factors, as children are shaped by these early relationships, and this can have an impact on how they interact with others later in life. These findings further support the idea that early relationships can help shape individuals' behavior. This is important to the current research as it shows how different aspects of an individual's environment integrate to influence the whole behavior.

Teachers' perceptions of bullying. Since the majority of bullying has shown to occur in school settings, teachers' understanding of bullying plays an important role because their ability to notice and stop incidents of bullying can make a significant difference to a child's life. Anything other than physical bullying may be difficult for teachers to recognize and may occur outside their presence. It is therefore imperative to understand the different types of bullying, to recognize that they are equal in seriousness and that each significantly harms the victim (Kasen, Berensen, Cohen, & Johnson, 2004). Teachers' attitudes toward different types of bullying can influence the duration and severity of their occurrence (Olweus, 1994).

Research has found that teachers' perceptions of different types of bullying vary: they tend to define bullying as being physical and are less likely to recognize relational (e.g. social exclusion) and verbal acts (e.g. name calling, spreading rumors) as bullying (Boulton, 1997; Craig, Henderson, & Murphy, 2000; Hazler et al., 2001; Naylor et al., 2006). This could be because teachers perceive physical forms of bullying as the more severe (Duy, 2013; Hazler et al., 2001; Yoon & Kerber, 2003). Menesini, Fonzi, and Smith (2002) reported teachers were less likely than students to consider verbal and indirect types of bullying (such as social inclusion, gender exclusion, and verbal bullying) to be bullying. Because defining bullying accurately is important, this restrictive definition may lead to teachers being less sympathetic

to less visible forms of bullying, resulting in underreporting and further harm for the victim (Yoon & Kerber, 2003).

Other possible reasons why teachers perceive different types of bullying to have different severities could be due to myths about bullying (Fitzgerald, 1999; O'Moore, 2000). One such myth is that bullying is either harmless or part of character building that makes the victim tougher (Juvonen, 2005; Scarpaci, 2006). Additionally, teachers have reported feeling less confident talking to the bully compared to talking to and comforting the victim (Nicolaidis, Toda, & Smith, 2002).

These studies have shown that teachers defined bullying largely in terms of physical and direct forms of bullying (Boulton, 1997; Hazler et al., 2001; Menesini et al., 2002). Because indirect forms of bullying usually take place when teachers are not present, the teachers failed to detect such bullying behavior (Craig et al., 2000; Yoon & Kerber, 2003; Young, Boye, & Nelson, 2006). Teachers are less likely to intervene in incidents that they did not witness, and children are less likely to report incidents where intervention is unlikely (Cortes & Kochenderfer-Ladd, 2014). Taken together: the literature indicates that teachers tend to focus on specific types of bullying and neglect other aspects of bullying. Research should therefore, provide clear definitions of bullying to guard against such biases. The present program of research (presented in subsequent chapters) asked adults to retrospectively report on bullying experiences, some of which occurred during adolescence in the school context. These participants were, therefore, provided a definition of bullying specifying the key aspects of intent to harm, repetition, and power imbalance.

Family environment and parenting styles. The family environment is also a key predictor of the likelihood that a child will become either a victim or a bully (Jansen et al., 2012; Perren & Hornung, 2005; Rigby, 1994; Spriggs, Iannotti, Nansel, & Haynie, 2007; Wolke et al., 2001). Bullies are more likely to come from dysfunctional families that lack

love, support or belonging, and where parents criticize children. Families where parents have negative emotional attitudes, who use physical punishment, and who are accepting of aggressive behavior are also more likely to rear bullies (Olweus, 1999).

Espelage, Bosworth, and Simon (2000) examined familial and other adult influences and their associations with bullying behavior. The results of their study revealed three significant findings. First, students who reported that their parents used physical discipline strategies at home were more likely to be bullies. Second, bullying was reduced in students who reported spending time with adults who suggested nonviolent strategies to manage conflicts. Third, students who spent most of their time during the weekdays without adults were more likely to engage in bullying.

The relationship between parenting styles and bullying has been shown to be similar across nations. Smith and Myron-Wilson (1998) reviewed research from Europe, Australia and the United States and found that violent parental behavior and harsh discipline were associated with bullying behavior in children, while having overprotective parents was related to victimization. Ladd and Ladd (1998) demonstrated a relationship between victimization and families who had a high level of intrusive demandingness and who offered few opportunities for children to control social circumstances. Children of parents who presented negative parenting behaviors (e.g. neglect, abuse, maladaptive parenting) were also more likely to be bullies or victims. However, parents demonstrating positive parenting behaviors (e.g. good communication, warm and affectionate relationship, increased parental involvement, support, and supervision) guarded their children against being a bully or victim (Lereya, Samara, & Wolke, 2013). Victimization has also been found to occur among students from separated or divorced families (Bond et al., 2001). These findings suggest that traits of those involved in bullying could be due to learned interactions with parents. This

supports the key assumption underpinning the present research that environmental factors influence roles in a bullying scenario.

Parenting styles can also influence child attachment styles. For example, parents who used an authoritarian parenting style as opposed to a democratic style were more likely to rear bullies (Baldry & Farrington, 2000; Espelage et al., 2000; Rigby, 1994). Baumrind (1966) stated that authoritarian parents were oriented towards obedience and status, expecting their children to obey without asking questions and punishing disobedience. Children may perceive parents who use this style as unforgiving towards others and could therefore use this style with peers resulting in them adopting the bully role (Ahmed & Braithwaite, 2006). These studies provide further support for the premise that social factors can make people vulnerable to a particular bullying role. Research has also suggested that infant attachment styles could be associated with bullying problems in the school years (Smith & Myron-Wilson, 1998; Troy & Sroufe, 1987; Williams & Kennedy, 2012).

In conclusion, bullying is a complex phenomenon, and gender, age, personality traits, socioeconomic level, teacher perceptions, family environment, and parenting styles all play important roles in determining bullying roles. Therefore, these known predictors must be considered when conducting research in this area.

2.5. Social Ecological Perspective on Bullying

The social ecological perspective suggests that individuals' attitudes and behaviors are primarily influenced by peers in their social group (Harris, 1995; Harris & Pinker, 2011). When social groups form, individuals behave in ways that favor their group (in-group) and discriminate against others (out-group), and this becomes more apparent over time (Harris, 1995). Nesdale, Durkin, Maass, and Griffiths (2004) found that individuals not only presented attitudes that were similar to their own social group—even if they did not

necessarily agree with them—but they also discriminated against those not within their social group.

Prejudice towards out-group members occurs in several ways: when members of the in-group identify strongly with their group, when in-group members are encouraged to bully out-group members, when bullying out-group members can improve in-group social status, or when in-group social status is at risk from members of the out-group (Ojala & Nesdale, 2004). Bullying is also considered more acceptable when it is consistent with the group norms of the in-group (Ojala & Nesdale, 2004). Social ecological theories explain the modification of attitudes and behaviors of individuals in terms of the relationship between their various environments (e.g. interpersonal, organizational, community, and public policy) (Bronfenbrenner, 1979). Researchers have attempted to explain how peers may influence bullying through three prominent social-ecological theories: the homophily, dominance, and attraction theories (Swearer, Espelage, & Napolitano, 2009). These theories all describe the relationship between individuals and peers within their interpersonal environment.

The homophily theory suggests that people form social groups based on similarities in attitudes, interests, and behaviors (Brechwald & Prinstein, 2011). This is extended by the concept of moral disengagement whereby ethical norms are only triggered within in-group contexts. Several large multi-site studies have confirmed a robust association between moral disengagement and anti-social bullying behaviors (e.g., Thornberg, Wänström, & Pozzoli, 2016). A study of students from three German high schools reported that these effects do not extend to defenders or outsiders (Von Grundherr, Geisler, Stoiber, & Schäfer, 2017). There is, therefore, consistent evidence that an in-group bias moderates the salience of pro-social norms thus allowing bullying behaviors to be sanctioned.

Dominance theory specifies that some degree of aggression is required for individuals to gain access to things like high sociometric status among peers, and to avoid being targets

of bullying (Moultapa, Valente, Gallaher, Rohrbach, & Unger, 2004). People may form alliances with certain social groups who present some degree of aggression as they may feel that this will increase their sociometric status among peers or reduce their likelihood of being bullied. A study of United States university students ranging from 18 to 36 years old reported moderate correlations between a social dominance orientation and all types of bullying (Goodboy, Martin, & Rittenour, 2016). The association with indirect bullying through social manipulation was particularly strong suggesting empirical support for a dominance theory perspective.

Finally, in the context of school bullying, attraction theory suggests that to establish independence from parents, people are attracted to those who display aggressive, deviant, and disobedient behaviors. A longitudinal study of United States adolescents examined the change in such cognitions between elementary and middle school (roughly equivalent the transition of primary to high school in Australia) (Bukowski, Sippola, & Newcomb, 2000). This study reported a substantial increase in attraction to aggressive peers during this developmental transition. Further, the association between aggression and social prominence increased from very small ($r = .09$) during elementary school to large in middle school ($r = .08$). Also, the study reported that girls in particular reported an increased attraction to aggressive boys. These findings lend support to attraction theory as an explanation for bullying behaviors. In sum, it is likely that homophily, dominance, and attraction theories each provide an explanation of some aspects of the complex social contexts of bullying behaviors. Given the complex nature of these interactions further, research which allows for the interplay between various roles is warranted.

2.6. Overall Summary

The majority of bullying research has focused only on the roles of bully and victim. The examination of these roles has been used to identify their social cognitions, and

individual, family, and teacher differences. However, research has identified that within the social ecological perspective of bullying, social networks and people's relationships with peers contribute significantly to why bullying occurs (Huitsing & Veenstra, 2012; Salmivalli et al., 1996b). This chapter has identified the theories of homophily, dominance, and attraction. The examination of bullying from a social perspective is still in its infancy, with crucial gaps including how participant roles are influenced by other people within the social group. Nevertheless, it is broadly established that social cognitions are strongly influenced by people's perception of social ecological systems. Most influential is the microsystem, especially peer groups with whom the individual strongly identifies. There is consistent evidence that both anti-social and pro-social behaviors are congruent with group expectations and norms. It is less clear why this is so, although a range of theoretical perspectives appears to be complementary rather than contradictory. For example, both dominance and attraction theories specify a social advantage in aggressive behavior. Evidence indicates this advantage is particularly salient in the identity formation developmental stage.

The present studies are original research as previous studies have not assessed social cognitions as they relate to each of the six bullying roles. The present research addressed the issue of whether people in different participant roles have different social cognitions of bullying. However, several methodological issues also need to be addressed and resolved when exploring bullying. Chapter 3 examines these issues and details how they were addressed within the current thesis.

Chapter 3: Methodological Issues Associated with Bullying Research

There is a growing body of literature that recognizes the methodological issues associated with bullying research (Coyne & Monks, 2011; Furlong, Morrison, Cornell, & Skida, 2013). This chapter explores key methodological issues including those related to definitions used to examine bullying, the use of self-report questionnaires, and retrospective reporting of bullying.

3.1. Definition of Bullying

There is much contention surrounding the definition of bullying. This potentially undermines the quality of bullying research. There are many issues that need to be considered regarding the definition of bullying, including the level of agreement with respect to the definition of bullying held by researchers and participants, differences in the definition of bullying used by different researchers, the decision about whether to define bullying for participants, and the presentation format (video versus written).

Different definitions by researchers and participants. A literature review was conducted to establish an appropriate definition of bullying for the present research. Peer-reviewed articles were selected if they explored differences in definitions of bullying between participant and researcher. This search identified eleven studies, presented in Table 3 and Table 4. Table 3 includes studies that have explored how participants defined bullying. As evident in the columns *researcher definition characteristics* and *participant definitions*. The defining characteristics specified are never entirely the same.

The definition of bullying also varies across developmental stages. Whereas younger participants consider only aggressive physical behaviors to be bullying, older participants also include other behaviors (such as verbal insults) in their definition. This is highlighted in Table 3 which presents participant definitions as a function of age. Both Monks and Smith (2006) and Smith et al. (2002) explored differences in participants' definitions of bullying

across ages by displaying stick-figure cartoon images. Both studies showed that younger participants (4 to 8-year-olds) could only identify aggressive and non-aggressive behaviors. Older participants (14+) were able to identify aggressive and non-aggressive behaviors, and also physical and non-physical bullying, power imbalance, and repetition. These findings are particularly important because they show that when participants provided their own definition of bullying the prevalence was higher than when they were provided with a definition by researchers. From these two studies, it can also be concluded that younger participants' definitions of bullying are more strict than older participants. Therefore, it is recommended that researchers provide participants with a definition of bullying to facilitate consistency in the understanding of the term.

Table 3

Selected Previous Research Examining Definitions of Bullying by Participants

Study	Age (years)	Measurement type	Conditions	Researcher definition characteristics	Participant definitions
Byrne, Dooley, Fitzgerald and Dophin (2016)	12-19	Survey	Groups divided based on junior or senior year level, being a bully or a victim and being either male or female	Intent to harm, repetition, and imbalance of power	Students did not use any of the elements from researcher's definition (i.e. intent to harm, repetition and imbalance of power) to define bullying.
Frisén, Holmqvist and Oscarsson (2008)	13	Self-report questionnaire	N/A	Intent to harm, repetition and imbalance of power	30% of students included repetition and 19% included imbalance of power in their definition of bullying. No option for intent to harm was presented
Gordillo (2011)	12-16	Self-report questionnaire	Victims and bullies	Intent to harm, repetition, and imbalance of power	Victims' sole criterion of bullying is intent to cause harm. Bullies characterize bullying as power imbalance
Guerin and Hennessy (2002)	10-13	Interview	N/A	Intent to harm, repetition, provocation, and imbalance of power	Students tend to define bullying by how the victim interprets the incident rather than focusing on the bully characteristics (intent to harm, repetition, provocation and imbalance of power)
Hellström, Persson and Hagquist (2015)	13 and 15	Self-report questionnaire and focus group interview	N/A	Intent to harm, repetition, and imbalance of power	Adolescents defined bullying by power imbalance and repetition. However, they also considered a single incident to be bullying depending on the effects on the victim
Naylor et al. (2006)	11-12, 13-14, teachers	Self-report questionnaire	N/A	Direct or indirect acts, intent to harm, repetition, and imbalance of power	Both students and teachers characterized bullying by physical abuse, power imbalance, and verbal abuse rather than social exclusion, repetition and intent to harm
Saunders, Huynh, and Goodman-Delahunty (2007)	Adults (workplace bullying)	Survey	N/A	Negative behavior, repetition, intent to harm, imbalance of power, and victims label themselves as bullied	Identified two (negative behavior, intent to harm) of the five characteristics.

Differences in definitions among researchers. Moreover, the definition of bullying is not always consistent among researchers. The column “researcher definition characteristics” in both Tables 3 and 4 indicates several definitions of bullying. Generally, researchers define bullying in terms of intent to harm, repetition, and imbalance of power. However, some researchers only use two of these characteristics (Baly & Cornell, 2011; Sawyer, Bradshaw, & O’Brennan, 2008), whereas others add a fourth (for example direct or indirect nonsexual or nonviolent negative acts and provocation) (Guerin & Hennessey, 2002; Nielsen, Matthiesen, & Einarsen, 2010). Some researchers have included a completely different definition of bullying, such as Saunders et al. (2007) who include features such as “victim must identify as victim”. One potential issue with this particular characterization is that participants could label themselves as victims based on behaviors that researchers would not consider to be bullying behavior. Future studies should include a consistent definition of bullying so that results of various studies can be easily compared without having to translate between definitions. Because the most common definitions of bullying only include the three characteristics of intent to harm, repetition, and imbalance of power, this definition was used for the research presented in this thesis.

Table 4

Previous Research Examining the Presentation of Definitions on Prevalence Outcomes

Study	Age	Measurement type	Presentation of definitions	Researcher definition characteristics	Prevalence outcome
Baly and Cornell (2011)	Children (grades 6, 7, 8)	Survey	Control group (written definition) and educational video group	Intent to harm and imbalance of power	Lower prevalence rate of bullying in the educational video condition
Nielsen et al. (2010)	Adults (workplace bullying)	Self-report questionnaire	Self-labelling victimization with definition group, self-labelling without definition group and behavioral based conditions group	Direct or indirect nonsexual or nonviolent negative acts, repetition, prolonged period of time, and imbalance of power	Self-labelling with definition produced lowest estimated prevalence of bullying. Self-labelling without definition produced highest estimated prevalence
Sawyer et al. (2008)	Children (grades 4-12)	Survey	<ol style="list-style-type: none"> 1. Definition based single item measure 2. Behavior –based multi-response measure 	Intent to harm and repetition	Prevalence of bullying was higher when participants were given behavior-based measure
Vaillancourt et al. (2008)	8-18-year old's	Self-report questionnaire	<ol style="list-style-type: none"> 1. Provided definition of bullying before questionnaire 2. Defined bullying themselves before questionnaire 	Intent to harm, repetition, and imbalance of power	Lower prevalence rate of bullying when given definition of bullying

Providing a definition of bullying to participants. Providing a definition of bullying to participants (see Table 4) is important because it can have a significant impact on outcomes. This was evident in a study conducted by Vaillancourt et al. (2008) which explored whether the researcher-developed definitions of bullying corresponded with participants' definitions of bullying and how providing a definition of bullying to participants or having them use their self-generated definition would impact obtained estimates for the prevalence of bullying. Students aged 8 to 18 were placed in one of two conditions. The first condition involved participants being provided with a definition of bullying followed by self-report questions about bullying (concerning both being a bully and a victim). In the second condition participants were asked to define bullying and then answer the same self-report questions as those in the first condition. Participant-generated definitions of bullying mainly consisted of forms of general harassment, whereas intentionality, repetition, and imbalance of power were rarely listed. The prevalence of victimization was lower when given a definition of bullying than when participants defined bullying. This also provides further support for evidence outlined in the previous section highlighting how researchers' and participants' definitions rarely concur. These findings suggest that future research into bullying needs to incorporate a definition of bullying for participants, which has been done within the research studies of this thesis.

Presentation format of the definition of bullying. The form in which the definition of bullying is presented (i.e. video vs. written) can also significantly impact the reported prevalence for both victims and bullies. Table 4 highlights four studies, each showing that the reported prevalence of bullying differed based on how the definition of bullying was presented to participants. For example, Baly and Cornell (2011) studied the difference in the reported prevalence of bullying by both bullies and victims based on being given a written or video definition of bullying. The written group was provided with the following definition:

Bullying is defined as the use of one's strength or popularity to injure, threaten, or embarrass another person. Bullying can be physical, verbal, or social. It is *not bullying* when two students of about the same strength argue or fight. (Baly & Cornell, 2011, p. 225)

What constituted physical, verbal, and social forms of bullying were also explained to participants. The video group was provided with a similar definition, only they were also provided with scenarios that showed the differences between bullying and non-bullying. Following the definition (written or video), participants were asked whether they had bullied others or whether they had been victimized. The study showed two significant differences: first, that the video group reported significantly less social victimization than the written group. Second, the boys in the video group reported significantly less physical bullying (as victim and bully) than boys in the written group. The researchers speculated that the video group reported less bullying because the video helped make a narrower distinction of what constitutes bullying.

Furthermore, Nielsen et al. (2010) highlighted the issue of varying outcomes based on the presentation format of the definition of bullying. Nielsen et al. (2010) conducted a meta-analysis on the prevalence of bullying within workplaces that used both self-labelling and behavioral-based methods. The literature was categorized into three groups based on the method they used to assess prevalence: self-labelling with a definition (participants were provided with a written definition of bullying and asked about the frequency with which they were victimized), self-labelling without a definition (participants were asked whether they had been bullied without being given a definition of bullying), and behavior-based measures (participants were provided with items relating to specific behaviors and were asked how often each took place). Nielsen et al.'s (2010) findings showed that self-labeled victimization without a definition resulted in the highest recorded prevalence of bullying (18.1%)

compared to self-labelling with a definition (11.3%). The behavioral-based measure led to a prevalence rate (14.8%) that fell between those of the self-labelling methods. Therefore, future researchers ought to take this into consideration when exploring the prevalence of bullying. However, because the research presented in this thesis did not examine the prevalence of bullying, this issue was not considered to affect outcomes.

The way bullying is operationalized has also produced differences in the reported prevalence of victimization. Sawyer et al. (2008) examined the effect of having a definition-based single-item measure and a behavior-based multi-response item measure on the prevalence of reported victimization. The definition-based measure used one item to assess the frequency of victimization (e.g., “How often have you been bullied during the last month?”). Bullying was defined as “when a person or group of people repeatedly say or do mean or hurtful things to someone on purpose. Bullying includes things like teasing, hitting, threatening, name-calling, ignoring, and leaving someone out on purpose” (p.108). The behavior-based victimization measure included multi-response format questions regarding different forms of bullying over the past month (e.g., “within the last month, has someone repeatedly tried to hurt you or make you feel bad by...”). Results indicated that in grades 4-12 the prevalence of bullying was higher when using the behavior-based measure than the definition-based measure.

As summarized in Table 4, the different formats for presentation of the bullying definition can significantly influence results. There is not presently a consensus regarding the best presentation method. The majority of research, however, has employed self-report questionnaires and hence offered the definition of bullying in written format (Huang & Cornell, 2015).

The steady evolution of the definition of bullying over the past 30 years has allowed for an inclusion of a broad range of characteristics that can be used to define bullying. This

has been followed by a change in measurement practices, which has led to variation in estimates of prevalence. Studies have shown variation in views of bullying based on participant differences (Saunders et al., 2007; Sawyer et al., 2008). For example, younger children have been shown to have less complete and nuanced views of bullying compared to older youth (Ladd & Kochenderfer-Ladd, 2002; Smith et al., 2002).

Another key issue with defining bullying is that, as Smith et al. (2002) have identified, the word ‘bully’ is not meaningful in all languages. Smith et al. (2002) sought to resolve the semantic issues with the term “bully” by conducting a study where 25 stick figure drawings showing various types of aggressive experiences were given to 8 and 14-year-olds ($N = 1,245$) from 14 different countries to determine the terms used to describe these behaviors. The results showed significant cross-cultural differences in terms used for each drawing. This led to the conclusion that researchers need to define bullying before questioning students about their experiences (Huang & Cornell, 2015). These definitions also need to be relevant to all languages and cultural contexts. In sum, studies show that different definitions of bullying result in different outcomes. They also reveal, however, the importance of providing a definition of bullying to participants when examining bullying. Therefore, in the current thesis participants were provided with a clear written definition of bullying.

3.2. Self-Report Questionnaires

The most commonly used measurement approach in bullying research has been anonymous self-report questionnaires (Felix, Sharkey, Green, Furlong, & Tanigawa, 2011; Huang & Cornell, 2015; Solberg & Olweus, 2003) due to their efficiency in cost-effectively examining a large sample (Connell & Farrington, 1996; Hamburger, Basile, & Vivolo, 2011; Ortega et al., 2001; Solberg & Olweus, 2003). Despite the popularity of self-report questionnaires, this method is problematic because of the lack of independent supporting

evidence, failures of memory, and limits of introspection (Cornell & Cole, 2006; Felix et al., 2011). More precisely, these issues relate to the validity of self-report data, social desirability, and varying dependent variable measures, each of which will be outlined below.

The validity of self-report data. To test the validity of self-report questionnaires, Cornell and Mehta (2011) followed up self-reported victimization with counsellor interviews. Students completed a self-report questionnaire that asked whether they had been victimized in the last 30 days and also asked them to nominate peers whom they believed were also victimized within this timeframe. The results showed that, of the students who reported that they were victims of bullying in the self-report questionnaire, only 56% of these cases could be confirmed through school counselor interviews. Cornell and Mehta (2011) attributed the poor validity of self-reported responses to the failure to distinguish between peer conflict and bullying as well as overlooking the timeframe of the questionnaire (which assessed bullying only in the last 30 days), and incorrectly marking the questionnaire. Another contributing factor to higher self-reported bullying rates compared to counselor interviews could be underreporting by participants (bully or victim) due to feelings of shame.

Although Cornell and Mehta (2011) explored bullying using self-report questionnaires, the possible reasons for the poor validity identified above also apply to anonymous versions. To increase the validity of self-report questionnaires, future researchers could provide strict definitions of bullying to ensure participants understand the difference between peer conflict and bullying, clarify the timeframe of when the bullying in question took place, and provide clear instructions on how the questionnaires should be completed.

The self-report questionnaires presented in this thesis included a definition of bullying to ensure that participants understood what constituted bullying behavior. Because this research explored one particular incident of bullying of the participants' choosing, the timeframe of the bullying incident was not an important factor. Participants were also

provided with clear instructions in written format (e.g., “Here are some characteristics that may or may not apply to you. Please highlight an answer ranging from disagree strongly to agree strongly to each statement”) throughout the questionnaire in an attempt to ensure that their responses would be accurately reported.

Social desirability. Another common issue with using self-report measures is social desirability (Crothers & Levinson, 2004; Hazler, Carney, & Granger, 2006). A need for social approval increases the likelihood of underreporting of anti-social behaviors (Van de Mortel, 2008). Van de Mortel (2008) conducted a review focusing on health-related questionnaire studies that used social desirability scales. Results indicated that socially desirable responses affected 43% of the studies. The validity of anonymous self-report measures is still questionable because of researchers’ inability to determine whether responses are genuine. Nevertheless, it seems reasonable to suggest that anonymous responses are likely to be less influenced by social desirability bias than otherwise. The research comprising this thesis, therefore, took steps to ensure participant anonymity. Further, while participants were asked to recall actual incidents there was no stipulation that these incidents be recent. Accordingly, many participants chose to report incidents from the distant past. It is likely that this enabled a dissociation between individuals’ past and present selves, thus encouraging honest responding. It is noteworthy that such incidents remained personally salient despite the passage of time. Section 3.3 *Retrospective reports of bullying* provides a detailed assessment of the validity of memories for bullying incidents.

Evidence of the impact of social desirability can be seen in the study conducted by Cortes and Kochenderfer-Ladd (2014) which explored the influences of people who reported bullying in classroom settings. The results showed that students were more likely to report bullying in classrooms where there were low levels of victimization. Future researchers could increase the validity of their research studies by making sure teachers would be comfortable

intervening and confirming to participants that teachers would take an active role in intervening, given that Cortes and Kockhenderfer-Ladd (2014) also showed that willingness to report bullying by the victim was greater when they believed that teachers would take an active role.

Single- vs. multi-item measures. When assessing the prevalence of bullying, the nature of the measure can significantly affect the outcome. Both single-item and multiple-item questions measures exist (Furlong et al., 2010). Single-item questions ask participants about being victimized through the use of questions (e.g., “How often have you been bullied in the past month?”) and using responses ranging from *Not at all* to *Several times a week* (Nansel et al., 2001; Olweus, 1996). In contrast, multiple-item questions provide multiple responses to one question concerning bullying (e.g., “How often in the past month have you been hit, kicked, or threatened; the subject of rumors or lies; left out of social events?”) (Espelage & Holt, 2001; Rigby, 1998; Rigby & Slee, 1993). This gives participants the option of selecting more than one type of victimization. The primary difference between these approaches is that in the single item case, the questions are more limited. This may lead to under or over-reporting, depending on how participants understood bullying. Future researchers could reduce the impact of such issues for both single-item and behavior- based methods by finding a way to incorporate the full definition into their questionnaires.

3.3. Retrospective Reports of Bullying

Retrospective reports of bullying can also be problematic as the actual incident and the participant’s recall of the incident can diverge (Cochran, Greenspan, Bogart, & Loftus, 2016; Maughan & Rutter, 1997). In most cases, researchers are unable to verify whether the information being reported by participants is accurate (Hardt & Rutter, 2004). There are two distinct issues with retrospective reports, the first being the ability of participants to recall events, and the second issue being the extra challenge of recalling traumatic events.

The ability of participants to recall events. One of the main obstacles with recall is its accuracy (Winograd & Neisser, 2006). While memory tends to degrade over time, recall of traumatic events is relatively well-preserved (Foddy, 1994; Olweus, 1993; Rivers, 2001). One study by Sudman, Bradburn and Schwarz (1996) explored participants' ability to recall teachers, classmates and street names over time and showed that recall decreased between 10% and 20% after one year, and up to 60% after four years. However, research exploring the accuracy of recall has focused on memories that may not be significant to participants, which may partly explain the decrease over time (Iarossi, 2006). The accuracy of recall is better with unique low frequency events compared to events with high frequency (Wagenaar, 1986; White, 1982). Therefore, to increase validity in retrospective recall, the present research had participants choose a particular event that they believed they could recall accurately, which should have resulted in participants selecting a particular memory that was the most vivid to them. This should have resulted in more accurate responses.

The ability of participants to recall traumatic events. Another methodological issue with retrospective reports is the ability of participants to accurately recall traumatic events. One of the biggest problems with the literature in this area is that recollection at the time of the incident is typically not measured, but rather it is measured at two time points long after the event has concluded—usually about one or two years apart (Rivers, 2001).

Therefore, the issue with the accuracy of reporting traumatic experiences is the ability to do so after an extended period of time (Burbach & Borduin, 1986; Lewinsohn & Rosenbaum, 1987). This issue has been explored by several researchers who have highlighted that people can accurately recall traumatic experiences over an extended period of time. This is evident in a study by Rivers (2001), who examined the stability of recall among a sample of gay and bisexual men and women who had been bullied for five years or more.

Participants were aged between 16 and 41 and completed questionnaires at two time points

(12-14 months apart). Rivers (2001) showed a good stability of recall from time one to time two and therefore concluded that memory stability was reliable over time. Moreover, Olweus (1993) explored the accuracy of retrospective reports of victimization and found a large correlation between reports of victimization by in the ninth grade by 23-year-old males-and reports of victimization from independent sources (i.e. peer and teacher ratings).

It has been suggested that the accuracy and stability of these retrospective reports is due to these events being so intense as to cause strong emotional reactions and thus long-lasting, deeply encoded memory (Ladd & Kochenderfer-Ladd, 2002; Wagenaar, 1992). Despite the possibility that emotional experiences are better recalled than non-emotional experiences, the question remains: has time altered recall? Ideally, further longitudinal studies should be conducted that compare reports of victimization directly after the incident and then at a subsequent.

3.4. Summary and Suggestions for Future Research

The main issue for bullying research is that using different methodologies has led to varying outcomes, undermining comparisons between studies and interpretations of study findings. Other researchers have recently drawn attention to this issue (Jimerson, Swearer, & Espelage, 2010; Nielsen et al., 2010). Nevertheless, the belief that diverse methods for measuring bullying have only minor impact leads researchers to continue to use dissimilar methods (Vivolo-Kantor, Martell, Holland, & Westby, 2014). While consensus is yet to be reached, it is clear that researchers should both carefully consider and explicitly report procedures regarding participant stimulus material and outcome measures.

Due to concerns about the reliability and validity of self-reports of bullying, some researchers have recommended other assessment procedures (e.g. peer nominations and behavioral observations) (Chan, 2006; Chan, Myron, & Crawshaw, 2005; Cornell & Brockenbrough, 2006; Craig & Pepler, 2003; Hawkins, Pepler, & Craig, 2001). Ethical and

logistical challenges with peer nomination and behavioral observations make the use of these methods difficult because approval needs to be obtained from multiple outlets (e.g. researcher review board, school approval and written guardian consent) (Espelage & Swearer, 2003). It was not practical for this thesis to use peer reports to confirm information on reported bullying incidents. However, this would have been the best method to explore bullying. Future research could include this to corroborate information reported about bullying incidents, which would increase the reliability and validity of findings. Participants recalling negative experiences from their past has been heavily explored within the literature, with studies indicating that traumatic autobiographical memory recall has good reliability over time (Brewin, Andrews, & Gotlib, 1993; Maughan & Rutter, 1997; Mc Guckin, Lewis, Cummins, & Cruise, 2011; Schäfer et al., 2004). Despite showing good reliability among victims, research on the reliability and accuracy of autobiographical memories of a particular bullying incident from other roles (e.g. bully) has not been conducted. This is a fruitful avenue for future study to help further understand the roles involved in bullying besides that of victim. The current research presented in this thesis used retrospective reports. This technique was suitable for this research because it assessed participants' interpretation of the event from an adult perspective, rather than the accuracy of the event.

Because true experimental research designs cannot be used when studying bullying due to the ethical challenges, researchers tend to explore bullying after it has occurred. Two particular ways bullying has been explored are by examining its prevalence and by studying specific traits associated with each role. When exploring the relationship between bullying roles (e.g. bully and victim) and individual difference variables (e.g. personality traits), researchers tend to rely on correlational design (Jones & Paulhus, 2014; Tani et al., 2003). Causality cannot be directly inferred from such data in isolation. Future research could assess this issue using a longitudinal research design or a cross-lagged panel design.

Chapter 4: Development of the Social Cognitions in Bullying Measure (SCBM)

This chapter describes the development of a measure of social cognitions involved in bullying as a function of various roles implicated in bullying incidents. The measure is titled the Social Cognitions in Bullying Measure (SCBM). The literature has commonly identified four broad domains of social cognition that predict bullying behavior. These domains are guilt, responsibility, influence and attitudes (Menesini & Camodeca, 2008; Menesini, Codecasa, Benelli, & Cowie, 2003a; O'Connell, Pepler, & Craig, 1999; Salmivalli & Voeten, 2004). The aim of this study was to develop and evaluate a measure that could examine the social cognitive differences in guilt, responsibility, influence, and attitudes associated with different participant roles (bully, assistant, reinforcer, victim, defender, and outsider). The development of this measure will aid in exploring bullying from a social environmental perspective by focusing on *similarities* in cognitions among participants within one of six specific roles. Importantly, this approach is in contrast to the more typical approach of exploring individual differences between participants. These shared cognitive responses may suggest targets suitable for broad-based intervention programs in organizational and other social contexts where bullying occurs.

4.1. Method

Participants. Participants were recruited through social networking websites (Facebook and Quora), flyers posted on the RMIT University campus notice boards, and snowball sampling. Initially 200 participants responded, however, 51 were excluded: 18 participants were excluded because they were below the minimum age required (18 years old), and 33 provided either implausible responses (such as the same response for all items), or responses not consistent with free text comments. This yielded 149 participants with a mean age of 29.44 ($SD = 12.34$; *range* 18- 66 years) from 25 different countries. The majority were from Australia (45.6%) and the United States of America (23.5%). Roles were

randomly assigned. Participants were asked to recall a specific bullying incident from their past in which they engaged in that role. Participants who indicated that they could not recall engaging in the allocated role were asked to choose one of the other roles. The composition of this sample allocated to each of the six roles is presented in Table 5.

Table 5

Sample Composition for Study 1

	Male	Female	Total
Bully	11	9	20
Assistant	7	7	14
Reinforcer	12	10	22
Victim	14	21	35
Defender	20	19	39
Outsider	7	12	19

Participants were provided with the tripartite definition of bullying (regular, intent to harm, power imbalance) and given the opportunity to describe the incident to the extent they wished in free text. Despite the mean participant age approaching 30 years, the majority of incidents reported occurred during late adolescence or young adulthood and were clearly still highly salient to the individual. Most incidents occurred in high school or similar peer group settings; however, a wide range of physical and psychological victimization incidents were reported with no single type of incident predominating. Further, although a majority of incidents occurred in school settings or at least within school-based cliques, a substantial minority reported workplace incidents with a small number reporting other settings such as community or family. Reported incidents for retained participants clearly fitted the tripartite definition with ongoing victimization and malicious intent clearly apparent. Finally, participants typically provided moderate to substantial levels of detail describing the specific

role they played, consistent with role allocation described in the procedure section below. To guard participant anonymity, specific examples are not provided here, however, where incidents were described richly, there was a consistent and clear tendency for potential psychological and physical harm.

Measure. The questionnaire consisted of four parts. Part one contained items regarding participants' suitability for inclusion in the research. Part two included items regarding demographic information. The items were age, gender, country of residence, and occupation. Part three involved participants being assigned to one of the six participant roles (bully, assistant, reinforcer, victim, defender, outsider) as specified by Salmivalli et al. (1996b). Part four consisted of 39 items developed by the researcher using the themes of guilt, responsibility, influence, and attitudes. Items were rated on a three-point Likert scale (1 = *disagree*, 2 = *neither agree nor disagree*, 3 = *agree*).

Item generation. Initially, the previous literature regarding social cognitions relating to guilt, responsibility, influence, and attitudes associated with bullying incidents was reviewed. A list of items was then presented to a group of Ph.D. students from RMIT University, who reached consensus regarding 39 items as presented in Table 6. This pilot group included individuals whose first language was not English. The group indicated that the vocabulary for these items was readable for an adult group with a moderate level of English understanding. In contrast, the concepts canvassed were sometimes challenging as they required substantial introspection. As the items aimed to elicit underlying cognitions and motivations, this was deemed unavoidable. Nevertheless, as is the case in much bullying research, the quality of responses is necessarily contingent on individual insight. This limitation will be further discussed in subsequent chapters.

To confirm face and content validity, an expert panel of 4 academics within the discipline of psychology judged whether the items were consistent with their respective

domain and distinct from items in the other domains. Panel members were familiar with prominent social cognitive theories and represented a range of views from the sub-fields of social, clinical, and cognitive psychology. The panel also confirmed that items were consistent with social cognitive perspectives of bullying. Guilt, influence, and attitudes were each represented by 10 approved items while responsibility had nine approved items. As previous research provides little guidance regarding the latent structure of social cognitions associated with bullying incidents, the data were subjected to exploratory factor analysis as described in the results section.

Table 6

Social Cognition Items

G1	I did not feel any guilt for my actions
G2	Other people should have felt more guilt than me
G3	I felt guilty after the incident
G4	I felt guilty despite continuing my actions
G5	I believed that the bully felt guilty for their actions
G6	The roles of others made me feel less guilty
G7	The more people that were involved made me feel more guilty
G8	The more people that were involved made me feel less guilty
G9	The role I played should have made others feel more guilty
G10	I believed that I did not feel any guilt because others did not feel guilty
R1	The more people that were involve made me feel less responsible
R2	The less people that were involved made me feel less responsible
R3	I was responsible for the role I played
R4	During the bullying incident I felt that I could have stopped the bullying
R5	It was not my responsibility to help the person being victimized
R6	The victim was responsible for the situation they were in
R7	It was not my fault for what happened
R8	I felt that I was only partly at fault
R9	I felt that I was responsible for what happened
I1	I felt pressure from peers to act in a certain way
I2	The role I played had an influence on others
I3	I believed that anything I did would impact the person after the bullying stopped
I4	There was no influence on my decisions to act in a certain way
I5	I believed that the role I played would make me more popular
I6	The influence of others made me act that way
I7	The role I played made more people join in the bullying
I8	I believed that I could have changed my role if I wanted to
I9	I believed that anything I did would not impact the person after the bullying stopped
I10	The role I played influenced others to get involved in the incident
A1	I believed it was someone else's problem to intervene and stop the bullying
A2	I believed it was necessary to behave in the way I did
A3	I believed that if people got bullied, they deserved it
A4	I disapproved of bullying despite my role
A5	I felt that I was the most dominant person in that incident
A6	I understood that what I was doing was wrong despite my actions
A7	I believed that the situation I was in had a serious impact on others
A8	I approved of bullying despite my role
A9	My attitudes were different to the role I played
A10	There was a clear social group process to the bullying incident

Note. G = guilt, R = responsibility, I = influence, A = attitudes.

Procedure. Ethical approval for this study was granted by the RMIT Human Research Ethics Committee (BSEHAPP 23-14; Appendix A). Consent was implied via voluntary participation in this study and submission of the completed questionnaire. Responses were anonymous. The questionnaire was created using Qualtrics survey software. Participants who followed the link to the questionnaire were provided with an information statement which provided a complete overview of the study (See Appendix B for plain language statement). Participants were asked whether they were over the age of 18, understood English, and if they had any memory, visual, or attention impairments. Those who indicated that they were under the age of 18, responded “no” to understanding English, or “yes” to any of the impairments were excluded from completing the questionnaire.

In light of previous research showing the benefits of providing a definition of bullying (Saunders et al., 2007), the present study also provided a definition to participants. The definition stated that bullying was any direct or indirect behavior by a person or group toward another individual or group that is intended to cause physical or psychological harm, that is repetitive, and where there is an imbalance of power. Situations were not classified as bullying when two or more people of equal strength argue or have a fight, or where a person is only occasionally teased (Olweus, 1993). A definition of each *role* was also provided so that participants clearly understood what the role entailed (Salmivalli et al., 1996b).

After participants had read the definition, they were randomly allocated to one of Salmivalli et al.’s (1996b) six participant roles and asked to recall an incident from their past in which they played that role. Participants who indicated they could not recall such an incident were prompted to choose one of the other roles consistent with an incident they could recall. Many participants nominated incidents that occurred in school or university settings. Given the mean age approached 30 years, this may attest to the substantial long-term impact of bullying incidents noted by many authors (Arseneault, 2017; Brimblecombe et al.,

2018; McDougall & Vaillancourt, 2015; Wolke & Lereya, 2015; Young-Jones, Fursa, Byrket, & Sly, 2015). Participants then answered the 39 items examining guilt, responsibility, influence, and attitudes, with respect to the incident they chose.

Allocation strategy. Many previous studies have investigated the roles that people frequently or habitually play in the context of bullying incidents. Such studies tend to highlight the influence of individual differences, particularly personality traits. People who habitually play the bully role, for example, are often characterized as high on the personality dimension of psychoticism and low on conscientiousness and agreeableness (Bollmer et al., 2006; Book et al., 2012; De Bolle & Tackett, 2013; Van Geel, Goemans, Toprak, & Vedder, 2017). The dark triad of psychopathy, machavellianism and narcissism are particularly predictive of bullying behaviors (Baughman et al., 2012). The focus of the present study, however, is to explore the similarities in social cognitions associated with a particular role even if this is not the role that the individual typically plays. A motivating rationale for this line of enquiry is that personality dimensions are, by their very nature, resistant to intervention. In contrast, shared cognitions may be useful intervention targets, especially for broad-based interventions in salient social contexts such as workplaces and educational institutions. Social psychological research also indicates that people respond to situational pressures (Asch, 1951; Milgram, 1974). For this reason, participants were initially asked to try to recall an incident where they played a specific randomly allocated role irrespective of whether this was consistent with their typical social interaction style. Inevitably, however, there were cases where participants could not recall playing the allocated role. So that such participants were also represented in the sample, these participants were given the opportunity to specify a role within an incident that they could recall. Such participants typically chose one of the three socially acceptable (non-bullying) roles. Nevertheless, by

first providing a role to participants at random, the allocation strategy achieved the aim of including participants in role groups which were not congruent with their typical behavior.

4.2. Results

Preliminary analysis. Factor and reliability analyses of the initial 39 item pool were conducted. Prior to these analyses the suitability of data for factor analysis was assessed. Inter-item correlations are presented in Table 7. Inspection of these correlations revealed 24 coefficients above .4, indicating that meaningful relationships existed in the data. Similarly, the Kaiser-Meyer-Olkin value was .76, exceeding the recommended value of .6 (Kaiser, 1970, 1974) and Bartlett's Test of Sphericity (Bartlett, 1954) reached statistical significance ($p < .05$), supporting the factorability of the correlation matrix. Inspection of correlations revealed some strong associations between social cognitions from different domains. For example, items G3 ("I felt guilty after the incident") and A9 ("My attitudes were different to the role I played") were strongly associated ($r = .50, p < .001$). Similarly, R9 ("I felt that I was responsible for what happened") and I1 ("I felt pressure from peers to act in a certain way") also exhibited substantial association ($r = .40, p < .001$). As would be expected for items addressing aberrant behavior, inspection of the distribution of responses within items indicated that while all response options were represented some items had substantial skew. A maximum likelihood estimation approach was therefore employed, as this method is robust when some item distributions deviate from normality (Field, 2013).

Table 7

Inter-Item Correlations

	G1	G2	G3	G4	G5	G6	G7	G8	G9	G10	R1	R2	R3	R4	R5	R6	R7	R8	R9	I1	I2	I3	I4	I5	I6	I7	I8	I9	I10	A1	A2	A3	A4	A5	A6	A7	A8	A9	A10		
G1	1																																								
G2	.15	1																																							
G3	-.17	-.21	1																																						
G4	-.20	-.20	.76	1																																					
G5	-.10	-.10	-.14	-.12	1																																				
G6	-.01	-.08	.06	.02	.11	1																																			
G7	-.13	-.07	.30	.26	-.02	-.06	1																																		
G8	.02	-.11	.11	.04	.14	.48	-.34	1																																	
G9	.12	.20	-.23	-.22	.09	.01	-.05	-.05	1																																
G10	.01	-.01	.00	.03	.03	.25	-.20	.37	-.02	1																															
R1	-.01	-.11	.33	.31	.05	.47	-.04	.52	-.08	.30	1																														
R2	.09	.12	-.22	-.17	.06	.12	.02	.10	.03	.15	.01	1																													
R3	-.12	-.19	.20	.22	.20	-.01	.01	.00	-.05	.00	.09	-.20	1																												
R4	-.10	-.25	.18	.16	.35	.13	.10	.19	-.10	.06	.10	.00	.19	1																											
R5	-.14	.03	-.15	-.16	-.10	-.13	-.19	.17	-.01	.12	.08	.20	-.16	-.23	1																										
R6	-.05	-.13	-.04	.00	.05	.00	-.04	.03	.02	.11	.11	.06	-.07	.38	.1	1																									
R7	.11	.25	-.35	.24	-.11	-.09	-.15	.04	.03	-.01	-.08	.16	-.11	-.19	.24	.01	1																								
R8	.01	-.02	.43	.34	-.08	.17	.13	.12	-.16	.03	.30	-.11	.11	.24	-.07	.09	-.27	1																							
R9	-.21	-.28	.35	.34	.14	.11	.28	.01	-.03	.09	.20	-.10	.21	.14	-.10	.11	-.57	.21	1																						
I1	-.04	-.26	.50	.53	-.09	.18	.29	.04	-.16	.11	.36	-.25	.19	.05	.01	.07	-.32	.26	.40	1																					
I2	-.06	-.27	.00	.08	.24	.17	.01	.25	.11	.10	.10	-.11	.23	.24	-.13	.03	-.25	.00	.17	.11	1																				
I3	-.19	-.15	.05	.18	.14	-.01	.16	-.01	-.01	.05	.03	-.02	.14	.10	-.15	.07	-.01	.03	.15	.15	.24	1																			
I4	.17	.14	-.23	-.18	-.15	-.02	-.16	.08	.03	.08	-.02	.07	-.06	-.07	.06	-.05	.31	-.12	-.23	-.24	-.13	.04	1																		
I5	-.09	-.26	.35	.36	.08	.23	.14	.14	-.09	.11	.36	-.20	.19	.18	-.06	.13	-.36	.24	.33	.55	.11	.05	-.13	1																	
I6	-.06	-.15	.45	.44	-.01	.16	.22	.05	-.12	.19	.36	-.09	.17	.07	-.13	.08	-.34	.27	.23	.56	.15	-.02	-.27	.53	1																
I7	-.09	-.13	.28	.38	.04	.09	.14	.13	-.08	.32	.32	.14	.02	.09	.08	.22	-.35	.17	.40	.41	.13	.05	-.15	.42	.47	1															
I8	.00	-.14	.20	.21	.05	.21	.06	.22	-.23	.19	.30	-.07	.21	.24	-.07	.02	-.17	.28	.16	.16	.13	.08	-.07	.22	.27	.23	1														
I9	.16	.19	-.04	-.01	-.12	.04	-.01	.02	.02	.26	.09	.04	-.05	-.19	.13	.08	-.01	.04	.05	.15	-.04	-.24	.11	.03	.21	.21	.01	1													
I10	.06	-.19	.05	.17	.10	.10	.11	.11	.00	.17	.04	-.03	.17	.22	-.17	.13	-.16	.04	.22	.13	.36	.18	.07	.31	.15	.38	.09	.01	1												
A1	.02	.04	.06	.07	-.13	.07	.00	.07	.02	.22	.27	-.08	-.07	.38	.18	.11	.11	.06	.27	-.08	-.10	.01	.17	.12	.12	.04	.10	-.04	1												
A2	.00	.15	-.47	-.36	.04	-.18	-.04	-.15	.19	.02	-.35	.06	.01	-.13	.15	.05	.45	-.23	-.33	-.29	.03	.13	.24	-.25	-.31	-.24	-.30	.03	.02	.10	1										
A3	-.09	-.17	.16	.06	.03	.24	-.12	.32	-.02	.31	.32	-.04	.11	.07	.19	.30	-.22	-.01	.19	.22	.15	-.15	.02	.33	.20	.30	.16	.09	.22	.20	-.12	1									
A4	-.13	-.03	-.02	.13	.02	-.13	.08	-.15	.02	-.18	-.09	-.02	.04	-.02	-.10	-.07	.07	.05	-.11	-.04	-.03	.07	-.11	-.08	-.08	-.00	-.06	-.18	-.05	-.14	.06	-.45	1								
A5	-.21	-.23	-.05	-.09	.26	.10	.01	.13	.03	.20	.01	.06	.11	.19	.09	.26	-.15	-.14	.25	.00	.31	.14	-.06	.16	.00	.16	.05	-.03	.35	.03	-.03	.33	-.02	1							
A6	-.12	-.15	.50	.52	-.04	.21	.07	.16	-.23	.28	.36	-.14	.16	.13	-.10	.06	-.39	.45	.38	.37	.07	.00	-.14	.39	.38	.29	.32	-.07	.12	.09	-.43	.13	.13	.06	1						
A7	-.10	.05	.12	.17	.01	.02	.10	.03	.09	.07	-.05	-.03	.06	.03	-.21	-.04	-.10	.12	.18	.13	.11	.19	-.05	.14	.06	.15	-.01	-.17	.21	-.15	.07	-.02	.19	.22	.21	1					
A8	.02	.08	.01	-.01	-.05	.11	.04	.11	-.02	.32	.05	.04	-.02	.05	.16	.32	-.15	-.02	.20	.15	.14	.06	.08	.18	.16	.15	.16	.25	.14	.27	-.13	.39	-.49	.36	.05	-.02	1				
A9	-.15	-.22	.47	.50	-.02	.12	.10	.05	-.20	.10	.29	-.16	.08	.05	-.04	.06	-.28	.28	.28	.43	.07	.07	-.22	.34	.43	.22	.27	-.01	.07	.05	-.31	.03	.17	.07	.62	.10	-.01	1			
A10	.10	.02	.11	.09	-.03	.09	-.01	.12	.02	.11	.24	-.13	.08	-.18	-.07	-.04	-.09	.06	.04	.15	.12	-.04	-.07	.24	.20	.10	-.05	.11	.06	.08	.11	.08	-.02	-.09	.07	.17	-.04	.12	1		

Note. Significant correlations bolded (p < .05).

Initial factor analysis. The 39 items of the SCBM were then subjected to factor analysis using maximum likelihood estimation and oblique (Promax, $\kappa = 4$) rotation. Oblique rotation was chosen as it would be expected that social cognitions regarding different aspects of a bullying incidents would be related. The number of factors to extract was determined using Horn's parallel analysis. Traditional methods such as Kaiser's criterion (eigenvalues > 1) often specify too many factors as they do not account for the level of item association attributable to chance (Pallant, 2013). Horn's parallel analysis uses a bootstrapping technique to estimate chance eigenvalues. Eigenvalues above these are deemed to be meaningful. This method indicated a four-factor solution as presented in Figure 2. A point of inflection in the scree plot can also be observed subsequent to this fourth eigenvalue. Items with loadings below .4 were removed yielding a 25-item solution. Preliminary analysis of subscale internal consistency indicated that item G7 loading on factor four reduced reliability. This item was removed yielding the final 24-item solution. Loadings are presented in Table 8. This solution explained 40.83 percent of variance prior to rotation.

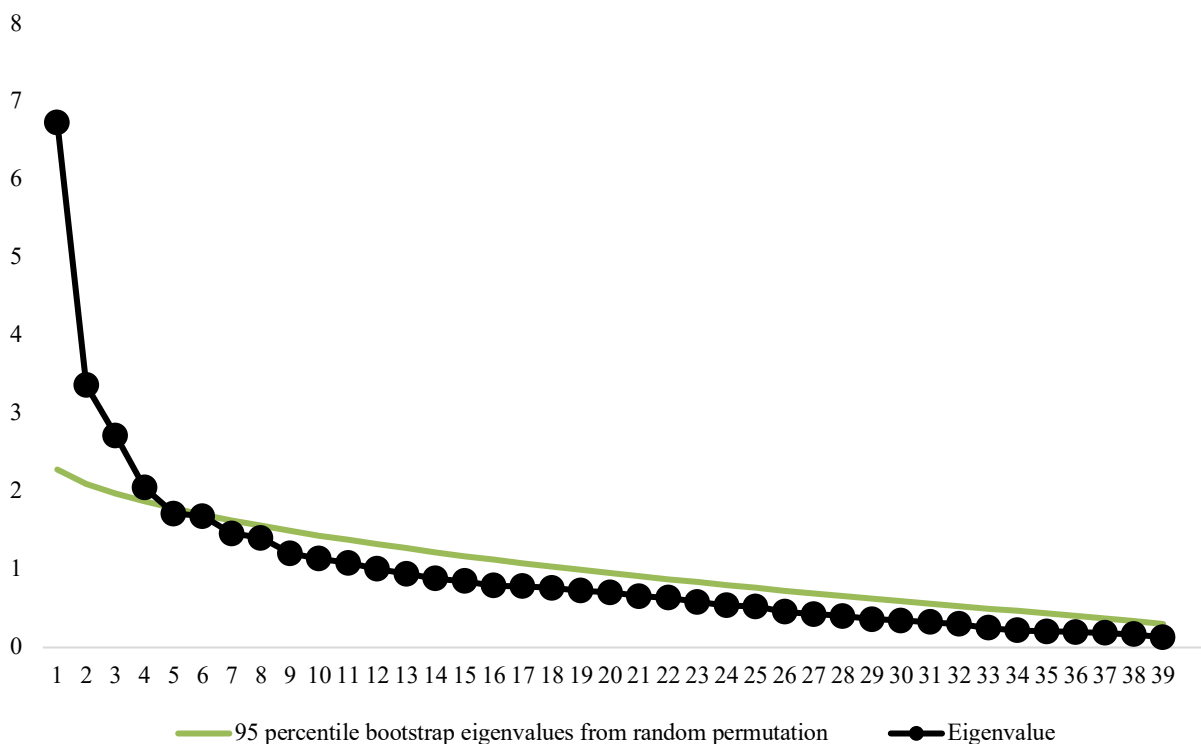


Figure 2. Horn's parallel analysis.

Table 8

Pattern Matrix of the Four-Factor Solution for SCBM Items

Item	Factor 1	Factor 2	Factor 3	Factor 4
G4	.85			
G3	.83			
I1	.68			
A6	.66			
A9	.65			
I6	.61			
I5	.51			
A2	-.48			
R8	.46			
R9	.45			
A8		.66		
A3		.55		
R6		.48		
A1		.48		
A4		-.46		
R5		.45		
I2			.51	
A5			.51	
R4			.49	
I10			.49	
G5			.47	
G8				.76
R1				.64
G6				.61

Note. Only loadings above .4 on one factor are displayed.

Each of the four factors contained items from more than one of the domains used to inform item generation (guilt, responsibility, influence and attitudes). Factors were interpreted by inspecting item content with a focus on high loading items. Factor one indicated feelings of personal guilt. High loading items included: I felt guilty despite continuing my actions; I felt guilty after the incident; and I felt pressure from peers to act in a certain way. It is interesting that this factor contained items from all four domains that informed item development rather than just the guilt domain. Factor two indicated lack of responsibility for individual behavior. High loading items included: I approved of bullying despite my role; I believed that if people got bullied, they deserved it; and I believed it was someone else's problem to intervene and stop the bullying. This factor contained four items from the attitude domain and two items from the responsibility domain. Factor three indicated the influence of a participant's role on others in a bullying incident. High loading items included: I understood that what I was doing was wrong despite my actions; the role I played had an influence on others; and the role I played influenced others to get involved in the incident. This factor also contained items from all four domains. Factor four indicated lack of guilt based on external influence which aligns with the concept of diffusion of responsibility. High loading items included: the more people that were involved made me feel less guilty; the more people that were involved made me feel less responsible; and the role of others made me feel less guilty. This factor contained three items from the guilt domain and one item from the responsibility domain. In sum, while items coalesced into clearly identifiable factors, these factors were not simply a reproduction of the four broad domains which informed initial item generation.

Internal reliability. Factor one exhibited good internal consistency with a Cronbach's alpha of .86. Factors two and three exhibited adequate internal consistency with Cronbach's alphas of .67 and .63 respectively. Factor four exhibited a good internal

consistency of .74. Item totals were calculated for each factor. Items with negative factor loadings were reverse coded. Descriptive statistics and inter-correlations for all factors are presented in Table 9. These correlations were of low or medium magnitude confirming that four distinct, but related domains of cognition were identified.

Table 9

Descriptive Statistics and Inter-Correlations for all Factors

	Factor 1	Factor 2	Factor 3	Factor 4	<i>M</i>	<i>SD</i>	<i>α</i>
Factor 1	1				1.95	.57	.86
Factor 2	.09	1			1.42	.39	.67
Factor 3	.16	.04	1		1.91	.50	.63
Factor 4	.34	.25	.22	1	1.97	.66	.74

Note. Significant correlations bolded ($p < .05$).

4.3. Discussion

The objective of this study was to develop a measure of shared social cognitions for individuals involved in broader social contexts within which bullying incidents occur. Social cognition items were informed by the extant psychological literature indicating four broad domains for item generation: guilt, responsibility, influence and attitudes. Four distinct factors emerged. Importantly, these factors did not simply map onto the original domains used to inform item generation; rather, each factor encompassed items from at least two of the initial domains. The resulting factors were, nevertheless, clearly distinct with modest inter-correlations. The four factors were identified as *personal guilt*, *responsibility to intervene*, *personal influence*, and *diffusion of responsibility*.

The first factor, personal guilt, included nine items exploring personal feelings of guilt. The literature states that feelings of guilt occur when a person's behavior results in a negative outcome and is attributed to internal, unstable, specific, and controllable causes (Tracy & Robins, 2004). The perception that causes are unstable and controllable indicates

that these cognitions may be amenable to intervention. Previous findings regarding participant roles and guilt have indicated that individuals who tend to feel more guilt are more likely to engage in prosocial behaviors and vice versa (Menesini & Camodeca, 2008; Roos et al., 2014). Attempts to understand why there may be a lack of guilt among bullies has led to findings indicating that bullies morally disengage from their negative behaviors (Gini et al., 2011; Menesini, Palladino, & Nocentini, 2015; Thornberg et al., 2016). Interventions drawing attention to controllability may reduce this tendency.

The second factor, responsibility to intervene, included six items. The literature indicates that feelings of responsibility make people more likely to intervene to try and stop the bullying (Pozzoli & Gini, 2013). Further, the level of guilt associated with a particular role may be contingent on the level of responsibility a person feels. Some research supports the role of responsibility to intervene in precipitating prosocial behavior by triggering guilt (Menesini, & Camodeca, 2008). Nevertheless, in the present study, factors representing these cognitions were not correlated. This indicates that people involved in bullying incidents believe responsibility to be contingent on factors beyond personal culpability. The presence of others may be a factor in reducing a sense of responsibility, as both the bully group (bully, assistant and reinforcer) and outsiders may be prone to diffusion of responsibility (Boster et al., 1999). The presence of others would also decrease the level of guilt, as people may believe that it would not fall to them alone to assist or otherwise intervene (Grissinger, 2012).

The third factor, perceived influence, included five items. This factor explored the influence a participant believed they had on others. Research indicates that those with high power or social status have more influence over people's behavior (Juvonen & Galvan, 2008). The role of the bully is one that is considered to have high power and social status (Olthof, Goossens, Vermande, Aleva, & Van Der Meulen, 2011). Nevertheless, some research indicates that the bully may be motivated by a need to influence others. Support for

bullying behaviors provides tangible feedback of such influence. It has been suggested that the underlying motivations may be fear of also being targeted (Turner, 1999) or maintenance of power and social status (Vaillancourt, Hymel, & McDougall, 2003). Interventions could therefore address the underlying insecurities of bully-aligned roles.

Factor four, diffusion of responsibility, included three items. This factor appears to focus on lack of guilt based on social environmental influences. Diffusion of responsibility is a well-known phenomenon in which the presence of others reduces individual perceptions of responsibility (Grissinger, 2012). Nevertheless, studies have shown that behaviors are also influenced by perceptions of group membership, group norms, and social identity (Lodder, Scholte, Cillessen, & Giletta, 2016). A recent study of adolescents for example concluded that “moral identity related positively to moral judgment, and both predicted less anti-social (joining in) behavior. Interestingly, moral judgment maturity primarily diminished anti-social behavior when moral identity was relatively low” (Patrick, Rote, Gibbs, & Basinger, 2019, p. 1). Groups norms therefore may be also be a useful intervention target.

Summary and limitations. The SCBM consists of four factors: personal guilt, responsibility to intervene, perceived influence and diffusion of responsibility. Together these factors may be useful when exploring people’s social cognitions when fulfilling a participant role in a bullying incident. Initially the 39 items developed to explore social cognitions were developed with reference to four broad domains: guilt, responsibility, influence and attitudes. Factor analysis resulted in a reduction of items. Remaining items coalesced into factors which were distinct both from each other and from the original broad categories which informed item development. Nevertheless, the acceptable but modest reliability of factors two and three suggests scope for further item development. Such development could explicate the factors suggested by the present study.

A strength of the present study was that it asked participants to consider roles which may differ from those they typically play. This was consistent with the overarching aim of establishing a research direction focused on shared cognitions rather than individual personality differences. Nevertheless, the choice to ask participants to consider a specific role was inevitably associated with the challenge that some participants may never have played the nominated role. This difficulty could be somewhat ameliorated in future research by accessing large samples. Nevertheless, the allocation strategy increased the likelihood of participants reporting cognitions associated with roles other than those that they typically fulfil.

The present study has demonstrated that specific domains of social cognition can be identified by participants when fulfilling a range of roles in social contexts where bullying occurs. This study has also presented a measure of these cognitions. These cognitions may suggest useful targets for interventions aiming to reduce the prevalence of bullying. As cognitions are more amenable to intervention than individual difference variables, this may provide a useful approach for both researchers and practitioners aiming to reduce the incidence of bullying and associated harm.

Chapter 5: Associations of Social Cognitions with Bullying Roles

The chapter describes Study 2. In this study the Social Cognitions in Bullying Measure (SCBM) developed in Study 1 (Chapter 4) was employed to explore similarities in social cognitions among people playing specific roles in the wider bullying context. The dimensions recorded by this measure are personal guilt, responsibility to intervene, perceived influence, and diffusion of responsibility. The roles investigated were bully, assistant, reinforcer, victim, defender, and outsider (Salmivalli et al., 1996b). This is a nascent area of research. The objective of the present study was to describe cognitions relating to each role and the extent to which these cognitions differ between roles. As described in the previous chapter, shared cognitions, especially related to group norms, may be more amenable to intervention than individual difference variables.

5.1. Method

Participants. Participant details are provided in Chapter 4.

Measures. A newly created measure, the SCBM, was used to examine variance in social cognitions across six roles in bullying contexts. The development of this measure is described in Chapter 4 and was informed by previous literature which indicated four broad cognitive domains: guilt, responsibility, influence, and attitudes. The SCBM consists of 24 items with a response scale from 1 (*disagree*) to 3 (*agree*). Total scores were calculated as the mean item score. This is equivalent to simply adding items but has the additional advantage that scaling is equivalent across factors irrespective of the number of items. The measure has four subscales: personal guilt (10 items), responsibility to intervene (six items), perceived influence (five items), and diffusion of responsibility (three items). The personal guilt and diffusion of responsibility factors have good internal consistency ($\alpha = .86$; $\alpha = .74$; respectively), while the responsibility to intervene and perceived influence factors had adequate internal consistency ($\alpha = .63$; $\alpha = .67$; respectively).

Procedure. The procedure used in this study is detailed in Chapter 4. Participants were randomly assigned to a role and asked to recall a time when they played that role in a bullying incident. Possible roles were bully, assistant, reinforcer, victim, defender, and outsider as specified by Salmivalli et al. (1996b). If participants were not able to recall an instance in which they played the randomly allocated role, they were given the option to specify a role within an incident they could recall.

Design and analysis strategy. The outcomes of interest were the four dimensions of social cognition measured by the SCBM. The predictor variable was role, being a categorical variable with six levels. Data were cross-sectional and developed from retrospective participant report. As multiple outcome variables were investigated across several levels of the categorical predictor, a multivariate analysis of variance was employed to detect global effects and control for type 1 error.

5.2. Results

Variation in mean scores on social cognition factors between the six bully role groups (bully, assistant, reinforcer, victim, defender, and outsider) were investigated. The outcomes of interest were the four social cognitive factors measured by the SCBM: personal guilt, responsibility to intervene, perceived influence, and diffusion of responsibility. A one-way between-groups multivariate analysis of variance (MANOVA) was therefore employed. Prior to the MANOVA, preliminary assumption testing was conducted. Box's test confirmed equality of covariance matrices $F(50,18442) = 1.14, p = .22$. Due to modest sample sizes within specific role groups, univariate and multivariate normality was not assumed.

Means and standard deviations for the social cognitions of each group are presented in Table 10 and depicted graphically in Figure 3. Correlations between social cognition factors within each group are presented in Table 11. The MANOVA revealed a significant difference between the six roles on the combined dependent variable: $F(20, 465.27) = 7.39, p < .01$;

Wilks' $\lambda = .4$; partial $\eta^2 = .20$, representing a medium to large effect size. This omnibus test indicates that there are differences between roles on a linear combination of the four cognitive dimensions. This significant multivariate outcome was followed up with a univariate ANOVA for each of the four factors as summarized in Table 12. There were significant differences between roles for personal guilt, perceived influence, and diffusion of responsibility. Effect sizes are presented as η_p^2 which indicates the proportion of variance in the outcome cognition attributable to role. Effect sizes were medium to large.

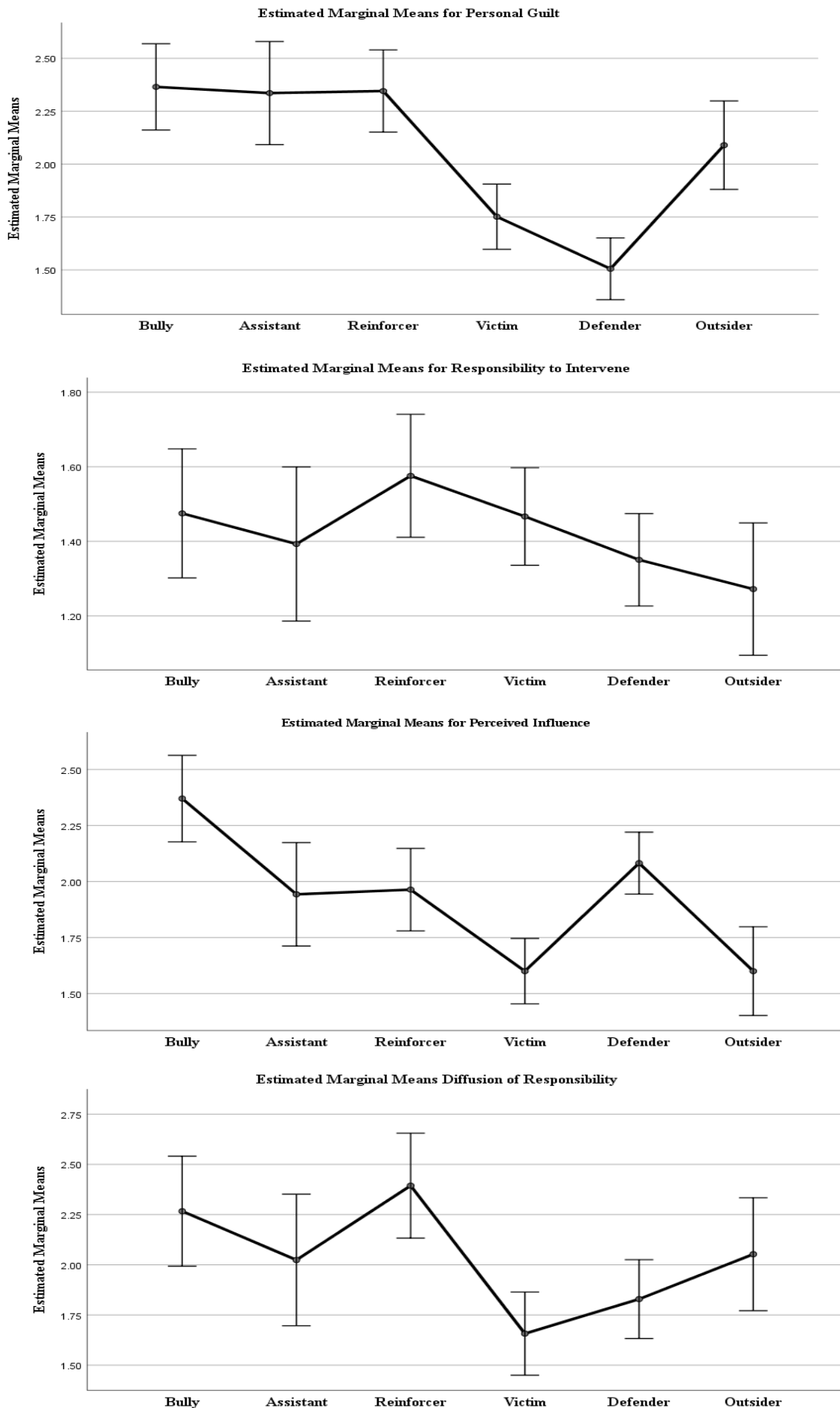


Figure 3. Social cognitive scores for each role in bullying scenarios.

Table 10

Mean and Standard Deviation Scores for the Social Cognitions

Outcome	Role	<i>M</i>	<i>SD</i>
Personal guilt	Bully	2.36	.39
	Assistant	2.33	.57
	Reinforcer	2.34	.41
	Victim	1.75	.43
	Defender	1.50	.47
	Outsider	2.08	.51
Responsibility to intervene	Bully	1.47	.39
	Assistant	1.39	.36
	Reinforcer	1.57	.52
	Victim	1.46	.34
	Defender	1.35	.38
	Outsider	1.27	.33
Perceived influence	Bully	2.37	.49
	Assistant	1.94	.37
	Reinforcer	1.96	.42
	Victim	1.60	.43
	Defender	2.08	.44
	Outsider	1.60	.41
Diffusion of responsibility	Bully	2.26	.67
	Assistant	2.02	.78
	Reinforcer	2.39	.70
	Victim	1.65	.55
	Defender	1.82	.56
	Outsider	2.05	.55

Table 11

Correlations Between Social Cognition Factors Within Each Group

	Bully			Assistant			Reinforcer			Victim			Defender			Outsider		
	F1	F2	F3	F1	F2	F3	F1	F2	F3	F1	F2	F3	F1	F2	F3	F1	F2	F3
F2	.03			-.52			-.37			.28			.32			.06		
F3	.04	.08		.23	.06		.44	-.19		.45	.38		-.23	-.07		.14	-.06	
F4	.50	.41	.17	.19	.06	-.06	.22	.19	.00	.05	.10	.41	.15	.36	.10	.20	.34	.09

Note. Significant correlations bolded. F1 = personal guilt, F2 = responsibility to intervene, F3 = perceived influence, F4 = diffusion of responsibility.

Table 12

One-Way Multivariate Analysis of Variance of Social Cognitions

	<i>df</i>	<i>F</i>	η_p^2	<i>p</i>
Personal guilt	(5, 143)	17.33	.37	< .01
Responsibility to intervene	(5, 143)	1.67	.05	.14
Perceived influence	(5, 143)	11.16	.28	< .01
Diffusion of responsibility	(5, 143)	5.24	.15	< .01

Note. Significant factors bolded.

Post hoc pairwise comparisons using the Tukey HSD test were employed to further follow up significant univariate ANOVAs. Pairwise comparisons between roles for which the difference in cognitions reached statistical significance are summarized in Table 13. For personal guilt, mean scores for the victim role were significantly lower than those for bully ($d = 1.48, p < .01$), assistant ($d = 1.14, p < .01$), reinforcer ($d = 1.14, p < .01$), and outsider ($d = .69; p = .01$). Further, the defender role had a significantly lower score bully ($d = 1.99, p < .01$), assistant ($d = 1.58, p < .01$), reinforcer ($d = 1.90, p < .01$), and outsider ($d = 1.18,$

$p < .01$) roles. For perceived influence, mean scores for the bully role were significantly higher than assistant ($d = .99, p < .01$), reinforcer ($d = .89, p < .01$), victim ($d = 1.60, p < .01$), defender ($d = .62, p = .01$), and outsider ($d = 1.70, p < .01$) roles. Further, the mean for the victim role was significantly lower than that for assistant ($d = .54, p < .01$), reinforcer ($d = .84, p < .01$), and defender ($d = .84, p < .01$) roles. Also, the mean for the outsider role was significantly lower than that for assistant ($d = 6.7, p = .02$) reinforcer ($d = 1.37, p < .01$), and defender ($d = 1.12, p < .01$) roles. For diffusion of responsibility, mean scores for the reinforcer role were significantly higher than those for victim ($d = 1.17, p < .01$), and defender ($d = .89, p < .01$) roles. Further, the bully role had a significantly higher score than victim ($d = .99, p < .01$), and defender ($d = .71, p = .01$) roles. Finally, the victim role had a significantly lower mean score than the outsider ($d = .72, p = .02$) role.

In sum, a substantial number of between group differences was observed across three dimensions of social cognition. Broadly, inspection of Figure 3 indicates a trend for the three bully aligned roles to differ from the non-bully aligned roles across all cognitions, although differences did not always reach statistical significance.

Table 13

Significant Pairwise Comparisons for Follow-up Tests for Variations of Social Cognition by Role (Study 2).

Factor	Roles	Bully	Assistant	Reinforcer	Victim	Defender	Outsider
Personal Guilt	Bully						
	Assistant						
	Reinforcer						
	Victim	*	*	*			
	Defender	*	*	*			
	Outsider					*	*
Responsibility to intervene	Bully						
	Assistant						
	Reinforcer						
	Victim						
	Defender						
	Outsider						
Perceived influence	Bully						
	Assistant	*					
	Reinforcer	*					
	Victim	*	*	*			
	Defender	*				*	
	Outsider	*	*	*			*
Diffusion of responsibility	Bully						
	Assistant						
	Reinforcer						
	Victim	*		*			
	Defender	*		*			
	Outsider						*

Note. Significant pairwise comparisons = *.

5.3. Discussion

The current study explored differences in social cognitions between various participant roles engaging in bullying incidents. Such differences also indicate similarity in cognitions within role groups, that is, cognitions are more similar within roles than between roles. Little previous research has sought to explore such similarities within role groups irrespective of whether the role corresponds to participants' usual behavior. The social cognition factors explored were personal guilt, responsibility to intervene, perceived influence, and diffusion of responsibility. Substantial group differences were apparent for all factors other than responsibility to intervene. The six roles were divided into bully roles (bully, assistant, and reinforcer) and non-bully roles (victim, defender, and outsider). Broadly, a pattern emerged in which bully roles were distinguished from at least one non-bully role.

Personal guilt. In regards to the personal guilt factor, a clear pattern emerged in which bully roles had high scores and non-bully roles had lower scores. This is an important finding as it suggests that participants playing any role which supports bullying are somewhat aware of their culpability. The defender role exhibited the lowest personal guilt. The defenders in particular displayed a positive orientation towards the role they played. Conversely, the outsider group experienced personal guilt which was greater than the defender group but less than any bully group. This is also an important finding as it suggests that outsiders are at least somewhat aware of a duty to intervene.

Previous research contradicts these findings, having found the role of the bully to be associated with a lack of guilt (Mazzone et al., 2018; Olthof et al., 2000). However, the low levels of guilt among bullies found in previous research could be the result of methodological issues. Specifically, previous studies either tacitly or overtly grouped participants according to roles they typically play. This inevitably results in the role being substantially confounded

with personality factors. For example, Menesini and Camodeca (2008) and Roos et al. (2014) assigned roles based on self and peer nominations and then had participants review non-bullying related fictional scenarios. Guilt among different participant roles was determined based on how participants responded to the fictional scenarios. In contrast, the current study relied on social cognitions related to an actual incident of bullying in which participants were personally involved. This may facilitate more accurate introspection and reporting. In the present study the allocation procedure is likely to have reduced (although not eliminated) the extent to which role was confounded with personality.

The higher level of personal guilt found amongst the bully roles could be explained by the suggested goals of such behaviors (Sijtsema, Veenstra, Lindenberg, & Salmivalli, 2009). Bullying is more likely to take place in the presence of others (O'Connell et al., 1999). One of the primary goals of bullying is to become popular among peers; indeed by being able to dominate others, bullies may achieve this goal (Garandeau, Ahn, & Rodkin, 2011; Prinstein & Cillessen, 2003). The ego syntonic benefits and achieved goals afforded by bullying may outweigh the ego dystonic sense of guilt. Research indicates that despite not being well-liked, aggressive adolescents are perceived as having high levels of popularity (Prinstein & Cillessen, 2003). Bullies' desire to be dominant, therefore, could offer an explanation as to why they engage in those roles despite feeling guilty (Menesini et al., 2003b; Olthof et al., 2011). Underlying insecurities such as a desire to fit in to prevent being excluded or targeted could also be a driving factor for their anti-social bullying behaviors (Dixon, 2007). This suggests that effective interventions could not only target guilt as a negative reinforcer of prosocial behavior but also provide other means of achieving popularity through prosocial actions as a positive reinforcer. This might engender self-sustaining reinforcement of prosocial actions.

Despite outsiders having a higher level of guilt compared to defenders, there could be several reasons why they may remain as outsiders. While outsiders might feel guilty for not intervening, their decision to remain as an outsider may be attributable to their relationship with the victim, the perceived seriousness of the situation, or their perceived inability to defend the victim (Forsberg, Thornberg, & Samuelsson, 2014; Pozzoli & Gini, 2013). Obermann (2011) found that passive bystanders who felt guilty for their inaction had a greater level of moral disengagement than those who did not. Nevertheless, Boster et al. (1999) showed that by increasing the sense of responsibility, the level of perceived guilt could also be increased. An awareness of shared responsibility could be achieved through manipulation of group norms. Increasing the level of guilt perceived by outsiders could potentially increase the likelihood of them changing roles to one of taking action and defending the victim.

Responsibility to intervene. The responsibility to intervene was the second social cognition explored. The findings showed no significant differences between the six participant roles. Interestingly, whilst not reaching statistical significance in the present study, the outsider role exhibited the lowest score on this factor indicating the highest sense of responsibility. This is consistent with results for the personal guilt factor which indicated that those in the outsider role felt greater guilt than the victim or defender although less than the bully-oriented roles. This showed that despite the feeling of responsibility and guilt, outsiders may lack required skills to intervene. There may be scope, therefore, for broad based interventions to target such skills in bystanders.

Perceived influence. The third social cognition factor was perceived influence over others. Results for this factor showed that bully, assistant, and reinforcer roles scored significantly higher compared to victim and outsider roles. Further, the bully scored significantly higher than either of the other bullying roles. It is not surprising to find the roles

of bully, assistant, and reinforcer to have higher perceived influence compared to victim and outsider roles. As the victim is the person being systematically attacked by others, it is clear they are in a position of lower power. Similarly, it is likely that people playing an outsider role would more likely intervene if they perceived they had the capacity to do so (Salmivalli et al., 1996b). Participants playing the role of outsider may not take up the role of defender as they lack the requisite skills to change their behavior (Forsberg et al., 2014; Pozzoli & Gini, 2013). This is consistent with the results regarding the responsibility to intervene which indicated that outsiders are aware of such responsibility.

A previous study conducted by Sutton et al. (1999b) also explored differences in social cognitions between the six participant roles. In this study the role of the bully was associated with higher scores on social cognition items related to peer influence compared to all other roles. The difference between the role of the bully and other bullying roles is that the former is the ringleader. Assistants and reinforcers facilitate and encourage bullying behavior by offering positive feedback, laughing, providing encouraging gestures, or being an audience member (Salmivalli et al., 1996b). The literature indicates the role of the bully is characterized by having a goal of appearing dominant. Indeed, research confirms that participants playing this role perceive they have the ability to manipulate others by changing their attitudes, beliefs and behaviors (Olthof et al., 2011).

Diffusion of responsibility. The fourth factor was diffusion of responsibility. This factor canvassed the extent to which people perceived that they were responsible to intervene based on the presence of others. Broadly, those in bullying roles tended to endorse greater diffusion of responsibility than those in non-bully roles. Those in bully and reinforcer roles scored significantly higher than those in both victim and defender roles. The presence of peers could be seen as influencing the reinforcer to adopt that role due to fear of being targeted (Atlas & Pepler, 1998; O'Connell et al., 1999; Pepler & Craig, 1995; Turner, 1999).

Alternatively, reinforcers may perceive the actions to be socially condoned, especially given the apparent influence of the bully. Conversely, these data confirm that those who actively intervene on behalf of the victim feel greater obligation to do so and may be less influenced by prevailing hierarchies and norms. This is consistent with previous studies in school populations (Thornberg & Jungert, 2013).

Strengths and limitations. The present study has both strengths and limitations. A strength is that six roles within the broader context of bullying were considered. Research taking this approach may suggest avenues for intervention beyond those apparent if only victim and bully roles were considered. Also, in much previous research the role participants were asked to consider was that which they typically play, or the role nominated by their peers. In contrast, the present study asked participants to consider a randomly allocated role. This approach presents both benefits and challenges. A benefit is that roles are less confounded with individual difference variables. It is well established, for example, that people who typically play bully roles tend to score high in trait psychopathy (Baughman et al., 2012). A limitation, however, is that inevitably some participants will not be able to recall an incident where they played the allocated role. In such cases participants were allowed to nominate a role. Future research should consider either asking participants to imagine playing the allocated role or alternatively randomly allocate a second role and so forth until a role is identified. Nevertheless, it is reasonable to suggest that participants in the present study includes participants who reported social cognitions relating to a role other than that which they typically play in bullying situations.

Conclusion. The present study explored similarities in the cognitions of people playing specific roles in bullying contexts. Participants were asked to consider a role in a particular bullying scenario which may differ from the role they habitually play. This strategy yielded a pattern of results which contrasted with those reported by many previous studies.

Broadly, participants in bullying roles did experience substantially more guilt and, to a lesser extent, influence, than participants in non-bully roles. In contrast, participants in bully roles reported lower feelings of responsibility, particularly due to diffusion. This suggests that aspects of the social environment serve to tacitly condone or at least allow bullying behavior. There is likely to be of substantial benefit, therefore, in further investigating social cognitions in contexts where bullying occurs. Broad-based interventions targeting these cognitions, particularly in the area of responsibility, may reduce the prevalence and severity of bullying and attendant harm caused.

Chapter 6: Refining Measurement of Social Cognitions in Bullying

This chapter further explores the Social Cognitions in Bullying Measure (SCBM) developed in Study 1 (Chapter 4). The aim was to confirm initial findings of a four-factor solution and further examine social cognitions in bullying. In light of the additional investigation of the SCBM and its application to another sample, a revised measure was developed (SCBM-R). Study 1 suggested four social cognition factors. In the present study, items were generated based on these dimensions and added to the item pool. It was hypothesized that a four-factor solution would remain a good description of the cognitions canvassed. It was further hypothesized that additional items would load as intended, thus verifying and elucidating the social cognitive dimensions. The expansion and refinement of the SCBM will assist in the exploration of bullying from a social environmental perspective, focusing on similarities in cognitions among participants in specific roles. The revised measure is used for this purpose in the subsequent study (Study 4).

6.1. Method

Participants. A convenience sample ($N = 325$) was recruited via social media (e.g., Facebook, Reddit), online forums and Amazon Mechanical Turk (MTurk). Participants recruited via MTurk were given a modest reimbursement (\$1.18 US) which is considered appropriate on this platform. Ages ranged from 19 to 73 ($M = 32.17$, $SD = 9.02$), however most participants were between 20 and 40 years of age (median = 31, interquartile range = 27-37). Regarding gender, 178 (54.8%) identified as male and 146 (44.9%) identified as female. Country of residence was specified as USA (56.0%), UK (12.9%), Australia (12.0%), and India (8.3%), with the remaining 10.8% specifying one of 25 other countries. Regarding relationship status, 60.5% reported being married or in a relationship.

Measure. The item pool for the SCBM-R was developed with reference to results from the first study which indicated a four-factor structure. All items from the original SCBM

item pool were included. Additional items were generated based on these four factors resulting in a total pool of 56-items. These additional items are presented in Table 13.

The questionnaire consisted of five parts. Part one presented participants with information about the study. Part two confirmed whether participants were over 18 years of age. Part three gathered demographic information. Items canvassed gender, year of birth, country of residence, language spoken at home, highest level of education, employment status and relationship status. Part four involved participants being assigned to one of the six participant roles (bully, assistant, reinforcer, victim, defender, outsider) as specified by Salmivalli et al. (1996b). Part five contained the pool of 56 perspective SCBM-R items. These items were rated using a visual analog scale represented by a slider. Advances in technology subsequent to Study 1 allowed this new approach. Research indicates that slider response formats yield similar results to Likert type scales (Kuhlmann, Danglgraber, & Reips, 2017). Slider items, however, are a convenient response format for small personal devices. Further, they yield a true continuous variable rather than a limited number of categorical responses. In the present study responses ranged from *disagree* (0) to *agree* (10), however, participants could choose any point within this range.

Table 14

Additional Items Added to the Original SCBM Item Pool

	Item
PG1	I felt guilty for the role I played in the incident
PG2	I did not feel guilty for my actions during the incident
RI1	I was not responsible for anyone else's actions
RI2	I was to blame for the role that I found myself in
RI3	I tried to stop the bullying
RI4	I thought bullying was acceptable
RI5	I was not responsible for the incident
PI1	I influenced other people to get involved in the incident
PI2	I was responsible for influencing the behaviour of others
PI3	I could have made anyone act anyway I wanted them to
PI4	I felt I instigated the incident
DR1	My attitudes towards bullying were not influenced by my peers
DR2	I felt that I had to play that particular role
DR3	I did not choose the role I played
DR4	I felt pressured to behave the way I did
DR5	The more people involved made me feel less responsible for my actions
DR6	The more people involved made me feel less guilty for my actions

Note. PG = personal guilt, RI = responsibility to intervene, PI = perceived influence,

DR6 = diffusion of responsibility. The complete 56-item pool is presented in Appendix C.

Item generation. The new items for the SCBM-R were created by first reviewing the literature regarding the dimensions identified in Study 1: personal guilt, responsibility to intervene, perceived influence, and diffusion of responsibility. A list of items was then presented to a group of academics at RMIT University who reached consensus regarding 17 items which were retained (Table 14). As previous research provides little guidance regarding

the latent structure of social cognitions associated with bullying incidents, the data were subjected to exploratory factor analysis as described in the results section.

Procedure. Ethical approval for this study was granted by the RMIT Human Research Ethics Committee (39-19/22191; Appendix D). Consent was implied via voluntary participation in this study and submission of the completed questionnaire. Responses were anonymous. The questionnaire was created using the survey software Qualtrics. Participants who followed the link to the questionnaire were provided with an information statement that provided an overview of the study (See Appendix E for plain language statement). Participants were then provided with the same definition of bullying as that presented in Study 1 (see Chapter 4).

Allocation strategy. Similarly to Study 1, participants were initially asked to try to recall an incident where they played a specific randomly allocated role irrespective of whether this was consistent with their typical social interaction style. Sixty-five percent of participants were able report on the initially allocated role. Inevitably, however, there were cases where participants could not recall playing the allocated role. In order for such participants to be represented in the sample, these participants were randomly assigned to another role and so forth until they could identify playing that role. Participants who indicated that they could not recall playing any of the six roles were excluded. The composition of this sample allocated to each role is presented in Table 15.

Table 15

Sample Composition for Study 3

Role	Male	Female	Total
Bully	35	23	58
Assistant	49	16	65
Reinforcer	23	25	49
Victim	26	23	49
Defender	23	30	53
Outsider	22	29	51
Total	178	146	325

6.2. Results

Prior to the main analyses, the factorability of the data was assessed. Factorability was confirmed with a KMO of .89. Bartlett's test of Sphericity confirmed the item correlation matrix significantly differed from the unity matrix, $\chi^2(36655) = 13684.83, p < .001$. Factor analysis using maximum likelihood estimation was conducted as this method is robust to non-normal distributions of scores. Substantial correlations between factors were envisaged, hence an oblique rotation was employed (Promax rotation, $\kappa = 4$). Horn's parallel analysis indicated a six-factor solution. Items with loadings below .4 were removed and analyses re-run yielding the final 48-item solution presented in Table 16. For items derived from the original SCBM, the original factor is also presented in this table. Descriptive statistics and inter-correlations for all factors are presented in Table 17.

Table 16

Pattern Matrix for the Six Factor Solution for SCBM-R Items

Item	1	2	3	4	5	6	Factor in Study 1
R6	.87						Responsibility to intervene
A3	.87						Responsibility to intervene
RI4	.78						-
PI3	.72						-
A8	.67						Responsibility to intervene
PI4	.61						-
R5	.61						Responsibility to intervene
G10	.60	.36					-
A5	.59						Personal guilt
G5	.58						Perceived influence
I9	.55						-
I4	.52						-
R9	.50						Personal guilt
R2	.48						-
I7	.44						-
G8		.83					Diffusion of responsibility
DR5		.80					-
R1		.78					Diffusion of responsibility
DR6		.75					-
G6		.66					Diffusion of responsibility
I6		.41					Personal guilt
I5		.36					Personal guilt
I3			.62				-
A7			.61				-
DR2			.59				-
I2			.59				Perceived influence
PI2			.57				-
RI3			.55				-
I10	.38		.50				Perceived influence
PI1	.38		.43				-
A2			.42				Personal guilt
G9			.39		.35		-
G3				.76			Personal guilt
G4				.72			Personal guilt
PG1				.65			-
G1	-.38			.63			-
PG2				.61			-
A6				.58			Perceived influence
A9				.49			Personal guilt
R7					.70		-
RI5					.65		-
G2					.59		-
RI1					.54	.32	-
DR1	.41	-.35			.52		-
A4	-.38				.52		Responsibility to intervene
R3						.64	-
RI2						.53	-
I8						.38	-

Note. G = guilt, I = influence, R = responsibility, A = attitudes, PG = personal guilt, RI = responsibility to intervene, PI = perceived influence, DR = diffusion of responsibility. Loadings below .3 not shown.

Table 17

Descriptive Statistics and Inter-Correlations for all Factors

Factor	1	2	3	4	5	6	<i>M</i>	<i>SD</i>	α
1	1						4.35	2.33	.93
2	.73	1					4.90	2.53	.91
3	.64	.46	1				5.34	1.98	.84
4	.33	.43	.08	1			5.21	2.33	.83
5	-.07	-.10	.16	.34	1		6.35	1.92	.73
6	.39	.34	.32	.41	-.06	1	6.15	2.30	.66

Note. Factor 1 = social endorsement, Factor 2 = diffusion of responsibility, Factor 3 = perceived influence, Factor 4 = personal guilt, Factor 5 = personal culpability, Factor 6 = personal volition. Significant correlations bolded ($p < .05$).

The items within each factor were inspected to ascertain the overall themes represented. This inspection indicated the following factors: (1) social endorsement, (2) diffusion of responsibility, (3) perceived influence, (4) personal guilt, (5) personal culpability, and (6) personal volition. Social endorsement indicates the belief that the bullying incident was consistent with norms in the context in which bullying occurred. According to these norms bullying was condoned, and the victim “deserved” to be bullied. Diffusion of responsibility indicates the well-known social phenomenon in which an individual judges their personal responsibility to be lower when others are present (Knauf, Eschenbeck, & Hock, 2018). Perceived influence indicates the level of power that an individual believes they possess. A person high in power can influence the actions of others, thereby influencing outcomes. It is of interest that the fourth factor, personal guilt, could be distinguished from the fifth factor, personal culpability. Personal guilt indicates the individual’s view regarding the extent to which their actions were morally correct, and feelings associated with that judgement. In contrast, personal culpability represents the

individual's view regarding whether the incident was their fault under the prevailing circumstances, norms and rules. The sixth factor, personal volition, indicates the extent to which a person believed they were free to change the role they played.

6.3. Discussion

The objective of this study was to expand and further develop the SCBM described in Chapter 4. It was hypothesized that a four-factor solution would remain the optimal description of the cognitions canvassed. The addition of extra items, however, resulted in a six-factor solution as presented in Figure 4. These factors were labelled social endorsement, diffusion of responsibility, perceived influence, personal guilt, personal culpability, and personal volition. Three of the four factors established in Study 1 were identified in the current study. These factors were personal guilt, perceived influence, and diffusion of responsibility. In contrast, the dimension identified in Study 1 as responsibility to intervene split into three more nuanced cognitions: social endorsement, personal culpability, and personal volition.

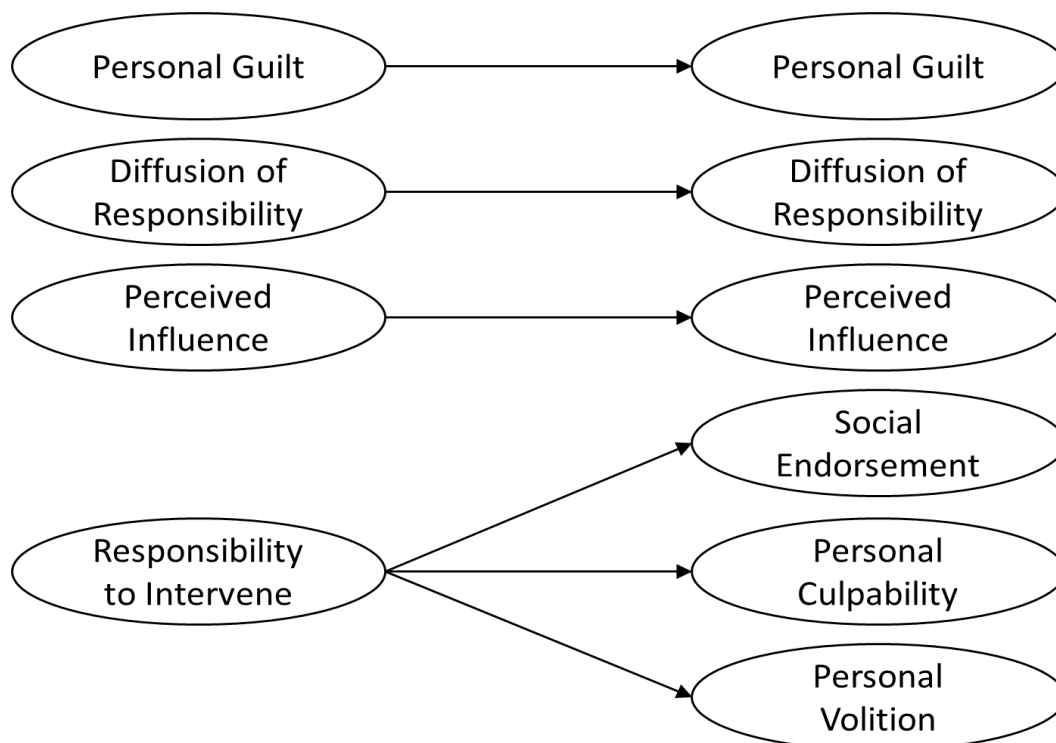


Figure 4. Mapping of factors from study 1 to study 3.

It was of particular interest that the present study was able to discern three distinct factors related to responsibility to intervene. Social endorsement indicates the extent to which bullying behaviors were perceived as accepted or condoned. This cognition highlights systemic characteristics that allow or encourage bullying. In contrast, personal culpability signifies the extent to which an individual perceives that it is their role within a specific organizational context to actively prevent bullying. Finally, personal volition indicates the extent to which individuals believe themselves able to intervene irrespective of whether it is either their organizational role or social responsibility to do so. An overarching theme linking these cognitions is the operation of power within informal groups or structured organizations (Tetlock et al., 2007). The separability of these dimensions indicates that people in the broader social contexts of bullying incidents are able to make nuanced judgments regarding social dynamics at play. It is also of interest that in Study 1 there were two additional factors indicated above a point of inflection in the scree plot, but marginally below the noise floor for that study (see Figure 2). Nevertheless, several high correlations among the six factors derived in the present study indicate that, whilst separable, these social cognitions are clearly interrelated.

The personal guilt factor included seven items. Inspection of high loading items indicates that this factor represents *feelings* of guilt rather than a judgment regarding culpability. This dimension, therefore, could be conceptualized as the extent to which involvement in a bullying incident is associated with ego-dystonic feelings of self-reproach. Previously published studies on guilt in bullying have explored whether individuals were more or less likely to engage in prosocial behavior if they exhibited higher scores on guilt questionnaires (Menesini & Camodeca, 2008; Roos et al., 2014). These questionnaires did not explore guilt relating to bullying but rather guilt for general behaviors. It was found that higher levels of guilt were associated with prosocial behaviors. In contrast, Study 2

(Chapter 5) indicated that despite engaging in bullying behaviors the bully roles were associated with higher levels of guilt compared to non-bully roles. This highlights an important difference between the present research program and previous research. Previous studies indicate individuals who tend to fulfil bully oriented roles also tend to feel less guilt in general (Menesini & Camodeca 2008). This reflects personality dimensions such as psychopathy, Machiavellianism, and narcissism (collectively known as the dark triad) (Baughman et al., 2012). In contrast, the present research program indicated that, irrespective of the role typically played, engaging in bully-oriented behaviors was associated with higher guilt than that experienced when engaging in non-bully behaviors. Integrating these ideas, it could be suggested that those who bully tend to experience guilt less keenly, however still experience some elevation in guilt when bullying.

The diffusion of responsibility factor included seven items. This factor represents a well-known phenomenon that has been discussed thoroughly within the bullying literature (Grissinger, 2012; Lodder et al., 2016). The presence of others reduces perceived responsibility through both the “somebody else’s problem” phenomenon and the apparent injunctive norm that bullying is condoned (Bjärehed, Thornberg, Wänström, & Gini, 2019). Recent research, however, indicates that individuals overestimate the extent to which bullying is condoned by others. This has been demonstrated in both school (Dillon & Lochman, 2019) and workplace (Jacobson, Marchiondo, Jacobson, & Hood, 2018) contexts. In particular, bullying is particularly endemic in health care settings (MacIntosh, Wuest, Gray, & Cronkhite, 2010). A recent review of diffusion of responsibility among nurses noted four particular risk factors: “nurses commonly follow orders”; “nurses are also pressured to follow group norms”; “high-stress environments, as seen in nursing, contribute to poor decision making”; and “nursing’s struggles for power, be they between health care disciplines or among nursing staff, are associated with power abuse”(Christensen, 2018, p. 265). More

broadly, it is not surprising that organizational structures which emphasize power hierarchies are often fertile environments for bullying to flourish. Beyond the health care setting, for example, this has also been demonstrated in academic environments (Miller et al., 2018) and workplace cyberbullying in general (Madden, & Loh, 2018). Similarly, bullying finds greater acceptance in cultures with a high-power distance (Power et al., 2013).

The perceived influence factor included ten items. As would be expected, this cognition had strong associations with both diffusion of responsibility and social endorsement. It is interesting to note that both bully and defender roles are associated with high social influence (Olthof et al., 2011). This may explain why workplace bullying is often associated with, or framed as, a failure of leadership (Bailey & Burhouse, 2019). In contrast, however, some research has associated anti-social behaviors with an external locus of control (Kåven, Maack, Flåm, & Nivison, 2019). The victim role is also associated with low perceived control (McNamara, Fitzpatrick, MacCurtain, & O'Brien, 2018). This may explain the well-known paradox of the bully-victim. A Norwegian study spanning a range of workplace environments found that both bullies and victims experienced increased work stress associated with conflicting demands and hence low job control (Matthiesen, & Einarsen, 2007).

The social endorsement factor included 15 items exploring the belief that the bullying incident was consistent with norms in the context in which it occurred. Substantial literature has highlighted that the social environment can have a negative effect on social norms in bullying incidents (Bjärehed et al., 2019; Cook et al., 2010). Specifically, a person's belief regarding the level of approval of bullying and support among peers has been shown to determine the likelihood of an individual defending the victim or joining in the bullying behavior (Burns et al. 2010; Sandstrom et al., 2013). Peers are also more accepting of bullying when it is consistent with group norms (Ojala & Nesdale, 2004), suggesting that

reducing the apparent social endorsement received from peers may be a useful intervention target. Hofstede and colleagues recently commented that the use of force or coercion often indicates that an individual's perceived or desired status is greater than that conferred by the group. This effect is moderated, however, by the extent to which aggression is condoned in the social context (Hofstede, Student, & Kramer, 2018). These researchers concluded that punitive remedies inherently highlight power relationships and hence may be counterproductive. An alternative strategy is to model compassion, kindness, and respect.

The personal culpability factor included six items exploring the individual's sense of fault under the prevailing circumstances, norms and rules. Feelings of personal culpability have been explored within the literature. The extent to which bullying is perceived to be more or less acceptable depends on group norms (Ojala & Nesdale, 2004). In the present study, culpability was most strongly associated with the personal volition factor followed by the social endorsement factor. These three cognitions are clearly linked and were subsumed under responsibility to intervene in Study 1. It is of interest that these cognitions are experienced as distinct from guilt, being the affective response to self-sanction. Bandura has stated "self-regulatory mechanisms do not come into play unless they are activated, and there are many social and psychological manoeuvres by which moral self-sanction can be disengaged" (Bandura, 1999 as cited in Thornberg & Jungert, 2014, p. 99). Bandura has identified eight mechanisms of moral disengagement (Pozzoli, Gini, & Vieno, 2012). One particular mechanism highlighted in research is attribution of blame which describes the judgment that the victim "deserved" to be bullied (Bjärehed et al., 2019). This cognition has also been found to be strongly associated with displacement of responsibility (Pornari & Wood, 2010). Taken as a whole, the research indicates that interventions aiming at promoting prosocial behaviors should focus on activating appropriate social identities and norms (Ojala & Nesdale, 2004).

The personal volition factor encompassed three items exploring the individual's view regarding their ability to act as distinct from either their duty or moral obligation. Literature indicates that individuals who are bullied experience reduced feelings of volition (Trépanier, Fernet, & Austin, 2016). This manifests as learned helplessness which is strongly associated with depression (Maier & Seligman, 2016). It is also implicated in the development of PTSD (Hammack, Cooper, & Lezak, 2012). Further, these impacts are felt by those who witness bullying incidents (Janson, Carney, Hazler, & Oh, 2009). These impacts can, however, be ameliorated by interventions to increase a sense of belonging (Midgett, & Dumas, 2019). This further supports the contention that interventions encouraging prosocial behaviors may be more effective than those discouraging anti-social behaviors.

Summary. The SCBM-R consists of six factors: personal guilt, diffusion of responsibility, perceived influence, social endorsement, personal culpability, and personal volition. Together these factors may be useful when exploring the social cognitions experienced while fulfilling a participant role in a bullying incident. Social cognitive theories suggest that behavior, both positive and negative, involve an interaction of cognitive and situational factors (Bandura, 2002; Bandura, 2016). Previous studies have indicated that individuals who habitually fulfil bully-oriented roles tend to experience lower levels of guilt and culpability (Menesini & Camodeca 2008; Pozzoli & Gini, 2012). In contrast, the present study indicates that despite these tendencies it is likely that such individuals experience greater guilt and culpability whilst fulfilling bully-oriented roles than otherwise. This provides opportunity for intervention as, while personality factors tend to be stable, cognitions are more malleable.

A strength of the present study was that, to the extent feasible, participants were randomly allocated to roles. This increased the likelihood that participants would report on roles which they played less frequently. Previous literature predominantly focuses on the

roles participants more frequently play. This has either been done through self or peer nomination. While this approach is common, a consequence is that social cognitions in behaviors not commonly associated with each individual have received little attention. This is despite evidence that participants can take up different roles in different incidents (Huitsing et al., 2012). The allocation strategy is, therefore, a strength of the present study. This study provides an initial indication that a range of nuanced social cognitions are shared by individuals playing a particular role in bullying incidents. These cognitions are likely to suggest targets for more effective intervention.

Chapter 7: Integrating Role and Personality Perspectives of Social Cognitions in Bullying

This chapter describes Study 4 which explores differences in the social cognitions associated with the roles played in the wider bullying context over and above that explained by personality. The study employs the revised Social Cognitions in Bullying Measure (SCBM-R) developed in Study 3 (Chapter 6). The dark triad personality traits, psychopathy, Machiavellianism, and narcissism are investigated as several studies report these to be strongly related to bullying behaviors (Paulhus & Williams, 2002). As discussed in Chapter 2 these personality traits are strong predictors of bullying behaviors. A large study of adolescents for example, investigated the big five personality traits, the dark triad, and sadism, finding that psychopathy had the greatest association with bullying (Van Geel et al., 2017). Similarly, a study of workplace bullying reported very strong associations between leader psychopathy, leader narcissism, and bullying (Tokarev, Phillips, Hughes, & Irwing, 2017).

The main objective of the present study was to explore whether meaningful similarities in social cognitions among people playing the same role remained after controlling for dark triad traits. It was hypothesized that significant differences in social cognitions between roles would be evident beyond those attributable to personality. Further specific predictions were not made as there is little previous research on this topic. Social cognitions which vary according to role, irrespective of personality, may offer new intervention targets to manage bullying behavior.

7.1. Method

Participants. Participant and recruitment details are reported in Chapter 6. Briefly, participants were a convenient sample ($N = 325$) recruited through a range of internet sites.

Participants' mean age was 32.17 years ($SD = 9.02$ years) with 44.9% identifying as female and a range of countries were represented.

Measures. The SCBM-R developed in Study 3 was used to examine variance in social cognitions across six roles in bullying contexts. The SCBM-R consists of 48 items. Responses are via a continuous visual analog scale anchored by 1 (*disagree*) to 10 (*agree*). Total scores were calculated as the mean item score and hence had the same range as individual responses. The measure has six subscales: personal guilt (seven items), diffusion of responsibility (seven items), perceived influence (10 items), social endorsement (15 items), personal culpability (six items), and personal volition (three items). Reliability analysis showed excellent internal consistency for social endorsement ($\alpha = .93$), diffusion of responsibility ($\alpha = .91$), perceived influence ($\alpha = .84$), personal guilt ($\alpha = .83$), and personal culpability ($\alpha = .73$). Personal volition had adequate internal consistency ($\alpha = .66$).

Personality dimensions were measured with the Short Dark Triad scale (SD3; Jones & Paulhus, 2014). This 27-item measure has three 9-item subscales: psychopathy, Machiavellianism, and narcissism. Responses range from 1 (*disagree strongly*) to 5 (*agree strongly*). Total scores are the sum of item scores. Previous research has confirmed sound psychometric properties including strong convergent and incremental validity (Maples, Lamkin, Miller, 2014).

Procedure. The procedure used in this study is detailed in Chapter 6. Participants were randomly assigned to a role and asked to recall a time when they played this role in a bullying incident. Possible roles were bully, assistant, reinforcer, victim, defender, and outsider as specified by Salmivalli et al. (1996b). The aim of this random allocation was to ensure that a substantial number of participants reported cognitions relating to a role other than that which they might habitually play. If participants could not recall the allocated role, another was randomly allocated, and this process continued until the participant identified a

role or all possible roles were exhausted. The SCBM-R and the SD3 were administered subsequent to this allocation.

Data analysis. The present study employed a multivariate analysis of covariance (MANCOVA). This multivariate analysis allows for the consideration of multiple theoretically-related outcomes. In the present study, the outcomes were the six social cognitive factors measured by the SCBM-R. This analysis also allows continuous covariates to be controlled for. Group means are adjusted to correspond to a scenario in which the covariates are held constant across groups. In the present study the covariates of interest were those corresponding to the dark triad.

7.2. Results

Outcomes of interest in the present study were the six social cognitive factors measured by the SCBM-R. The predictor variable was participant role (bully, assistant, reinforcer, victim, defender, and outsider) measured categorically. Dark triad personality traits measured as continuous variables were added as covariates. Descriptive statistics and inter-correlations for all participants are presented in Table 18. Unadjusted means and standard deviations for social cognitions within each participant role are reported in Table 19.

Table 18

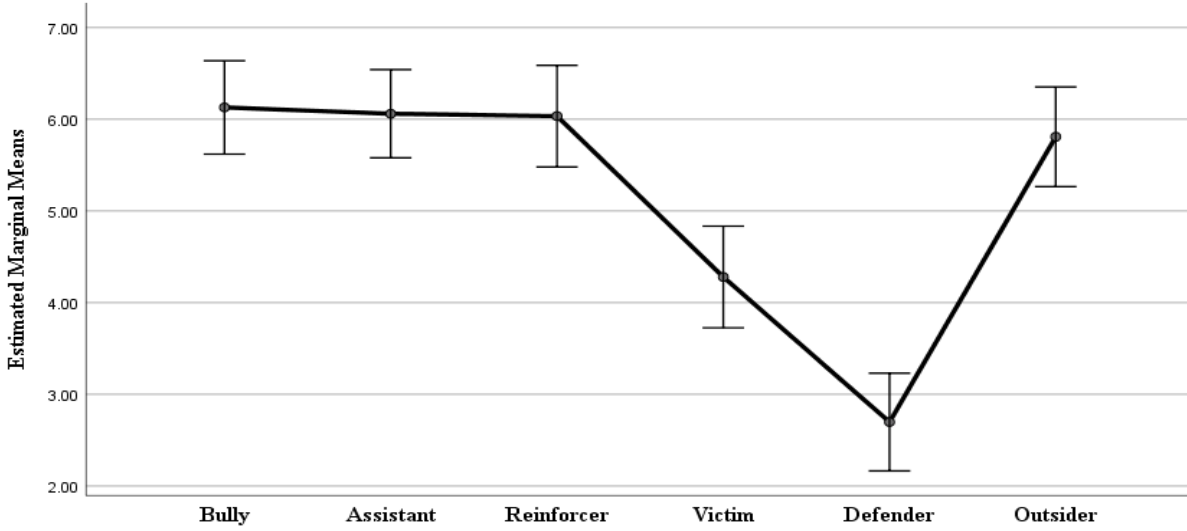
Descriptive Statistics and Inter-Correlations for all Variables

Factor	1	2	3	4	5	6	7	8	9	<i>M</i>	<i>SD</i>	α
1 Personal guilt	1									5.21	2.33	.83
2 Diffusion of responsibility	.43	1								4.90	2.53	.91
3 Perceived influence	.08	.46	1							5.34	1.98	.84
4 Social endorsement	.33	.73	.64	1						4.35	2.33	.93
5 Personal culpability	-.34	-.10	.16	.17	1					6.35	1.92	.73
6 Personal volition	.41	.34	.32	.39	.06	1				6.15	2.30	.66
7 Psychopathy	.25	.52	.55	.74	.00	.24	1			25.59	6.17	.69
8 Machiavellianism	.26	.54	.47	.62	.04	.27	.69	1		29.25	7.11	.85
9 Narcissism	.16	.40	.47	.58	-.03	.12	.61	.57	1	24.66	6.07	.83

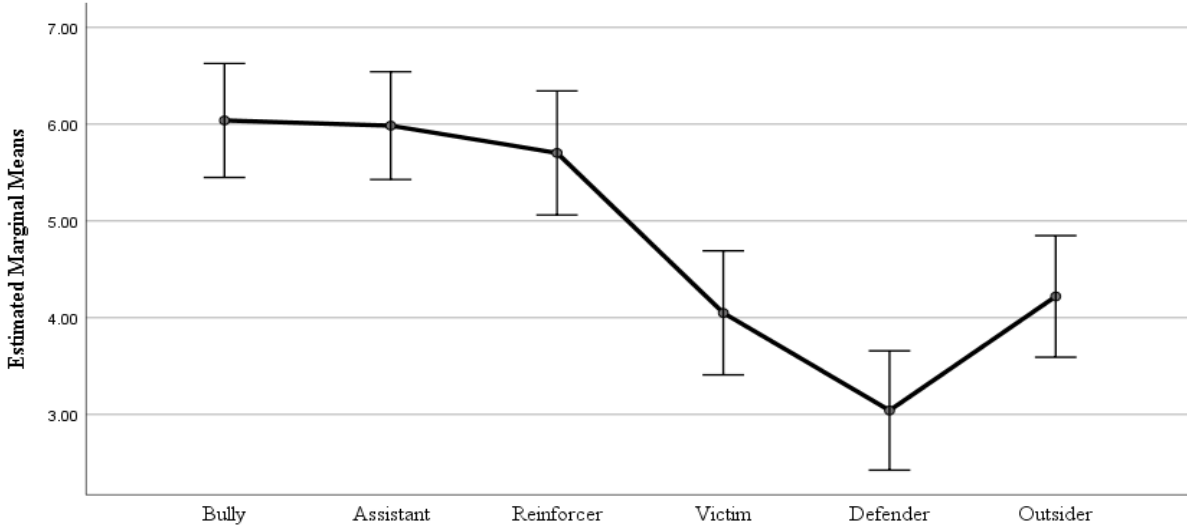
Note. Significant correlations bolded ($p < .05$).

MANCOVA evaluating Wilks' Lambda revealed a significant difference between the six roles on the combined dependent variable representing social cognitions as a whole: $F(30, 1246) = 12.27, p < .01$; partial $\eta^2 = .187$, with a medium to large effect size. The dark triad personality dimensions also explained substantial variance in cognitions: psychopathy $F(6, 311) = 16.13, p < .001$; partial $\eta^2 = .23$; Machiavellianism $F(6, 311) = 6.04, p < .01$; partial $\eta^2 = .10$; narcissism $F(6, 311) = 6.48, p < .01$; partial $\eta^2 = .11$. Effect sizes were large for psychopathy and medium for Machiavellianism and narcissism. Adjusted means and confidence intervals for the six social cognitions are depicted for each group in Figure 5. The significant multivariate outcome was followed up with univariate ANCOVAs for each of the six social cognition factors as presented in Table 20. Post hoc pairwise comparisons using the Tukey HSD test were employed to further follow up significant univariate ANCOVAs.

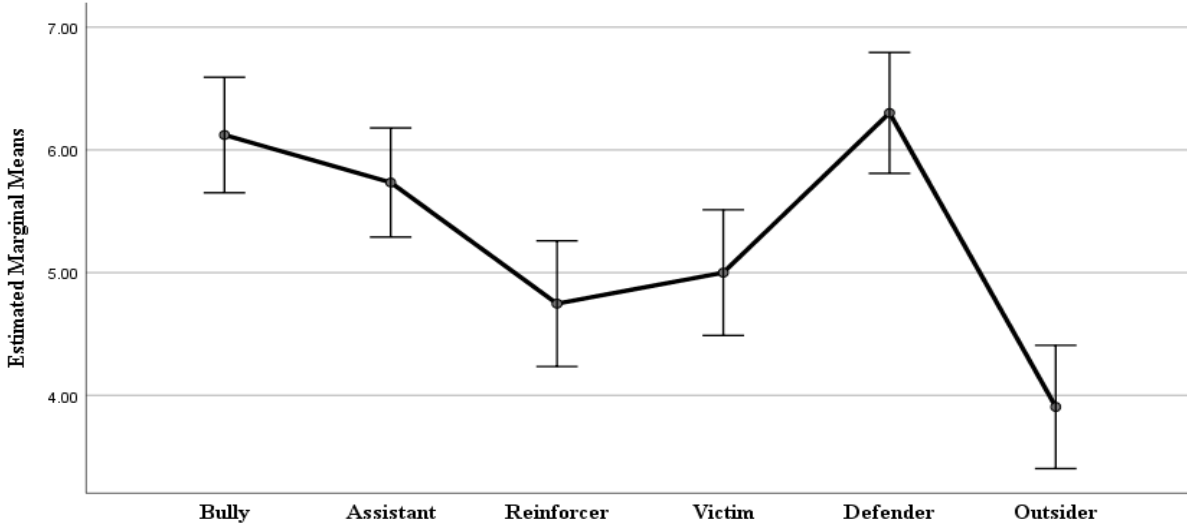
Estimated Marginal Means for Personal Guilt



Estimated Marginal Means for Diffusion of Responsibility



Estimated Marginal Means for Perceived Influence



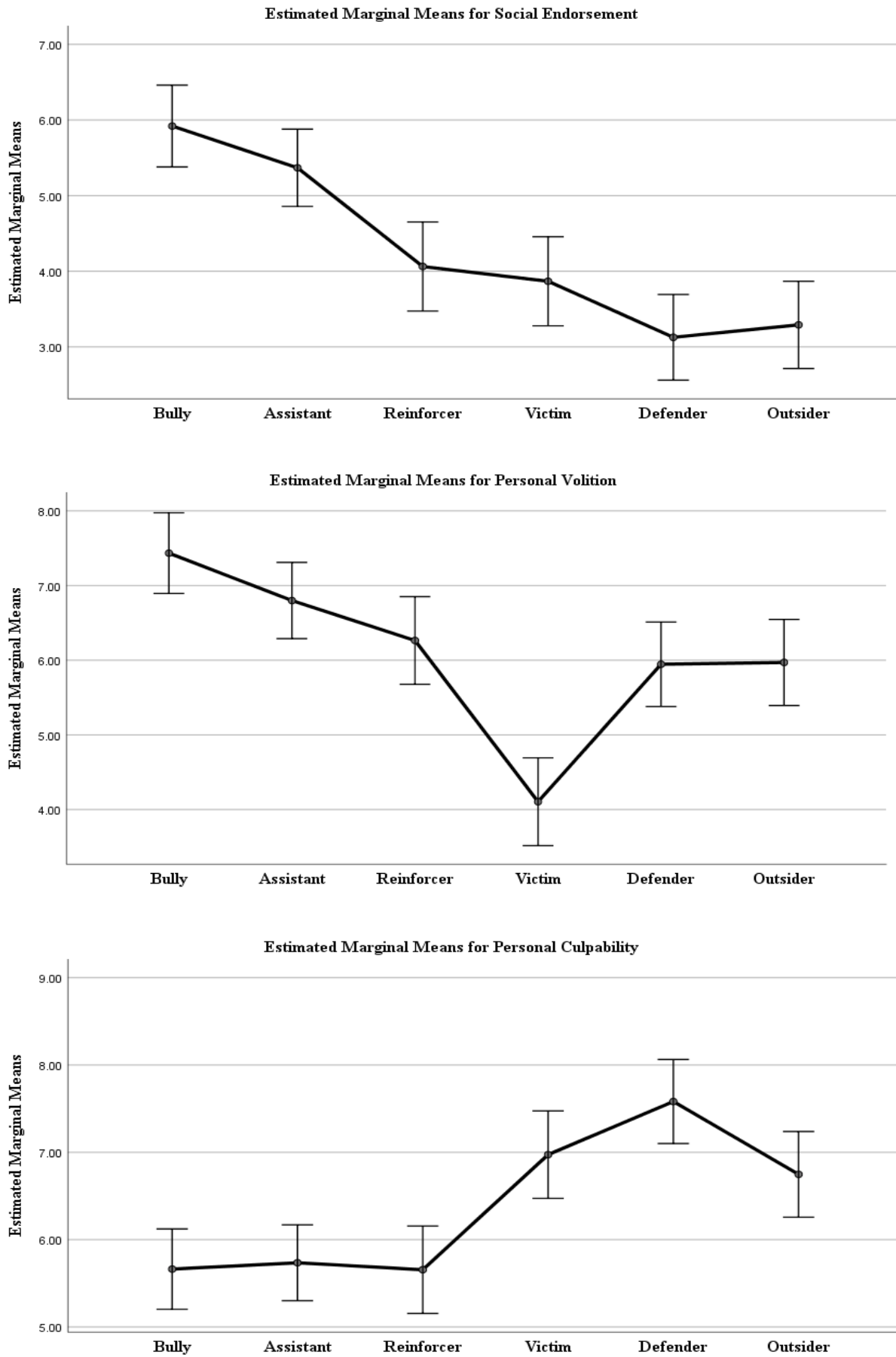


Figure 5. Social cognitive scores adjusted for dark triad personality traits for each role in bullying scenarios.

Table 19

Unadjusted Mean and Standard Deviation Scores for the Social Cognitions

Outcome	Role	<i>M</i>	<i>SD</i>
Personal guilt	Bully	6.12	1.46
	Assistant	6.05	1.53
	Reinforcer	6.03	1.83
	Victim	4.27	2.24
	Defender	2.69	2.56
	Outsider	5.80	2.10
Diffusion of responsibility	Bully	6.03	2.33
	Assistant	5.98	1.82
	Reinforcer	5.70	1.80
	Victim	4.04	2.69
	Defender	3.04	2.50
	Outsider	4.22	2.46
Personal influence	Bully	6.12	2.03
	Assistant	5.73	1.71
	Reinforcer	4.74	1.56
	Victim	4.99	2.08
	Defender	6.30	1.37
	Outsider	3.90	2.04
Social endorsement	Bully	5.91	2.02
	Assistant	5.36	1.93
	Reinforcer	4.06	1.82
	Victim	3.86	2.32
	Defender	3.12	2.32
	Outsider	3.29	2.12
Personal culpability	Bully	5.66	2.17
	Assistant	5.73	1.67
	Reinforcer	5.65	1.57
	Victim	6.97	2.03
	Defender	7.58	1.63
	Outsider	6.74	1.44
Personal volition	Bully	7.43	1.90
	Assistant	6.79	1.65
	Reinforcer	6.26	1.72
	Victim	4.10	2.84
	Defender	5.94	2.28
	Outsider	5.96	2.04

Table 20

One-Way Multivariate Analysis of Covariance of Social Cognitions

	<i>F</i>	<i>df</i>	η_p^2	<i>p</i>
Personal guilt	23.95	(5, 316)	.27	< .01
Diffusion of responsibility	11.67	(5, 316)	.15	< .01
Perceived influence	16.44	(5, 316)	.20	< .01
Social endorsement	8.41	(5, 316)	.18	< .01
Personal culpability	13.30	(5, 316)	.17	< .01
Personal volition	14.52	(5, 316)	.18	< .01

Pairwise comparisons between roles which reached statistical significance are summarized in Table 21. For personal guilt, mean scores for the victim were significantly lower than those for the bully ($d = .97, p < .01$), assistant ($d = .92, p < .01$), reinforcer ($d = .85, p < .01$), and outsider ($d = .70, p < .01$) roles. Further, the defender role had a significantly lower mean score than the bully ($d = 1.64, p < .01$), assistant ($d = 1.58, p < .01$), reinforcer ($d = 1.49, p < .01$), victim ($d = .65, p < .01$), and outsider ($d = 1.32, p < .01$) roles.

For diffusion of responsibility, mean scores for the victim role were significantly lower than those for the bully ($d = .78, p < .01$), assistant ($d = .84, p < .01$), and reinforcer ($d = .72, p < .01$) roles. Further, the mean scores for the defender role were significantly lower than those for the bully ($d = 1.23, p < .01$), assistant ($d = 1.34, p < .01$), reinforcer ($d = 1.21, p < .01$), and outsider ($d = .47, p < .01$) roles. Finally, the outsider role had a significantly lower mean score than the assistant ($d = .81, p = .04$) and reinforcer ($d = .68, p < .01$) roles.

For perceived influence, mean scores for the bully role was significantly higher than those for the reinforcer ($d = .75, p = .01$) and victim ($d = .54, p = .02$) roles. Further, the mean scores for the defender role were significantly higher than the bully ($d = .10, p < .01$),

assistant ($d = .36, p < .01$), reinforcer ($d = 1.05, p < .01$), victim ($d = .73, p < .01$), and outsider ($d = 1.37, p < .01$) roles. Finally, the outsider role had a significantly lower mean score than the bully ($d = 1.12, p < .01$), assistant ($d = .96, p < .01$), reinforcer ($d = .04, p = .03$), and victim ($d = .52, p = .02$) roles.

For social endorsement, mean scores for the bully role were significantly higher than those for the assistant ($d = .27, p = .02$), reinforcer ($d = .96, p < .01$), victim ($d = .94, p < .01$), defender ($d = 1.28, p < .01$), and outsider ($d = 1.26, p < .01$) roles. Further, the means scores for the assistant role were significantly higher than for the victim ($d = .71, p < .01$), defender ($d = 1.05, p < .01$), and outsider ($d = 1.02, p < .01$) roles. Finally, the reinforcer role had a significantly higher mean score than the defender ($d = .44, p = .03$) role.

For personal culpability, mean scores for the defender role were significantly higher than those for the bully ($d = .99, p < .01$), assistant ($d = 1.11, p < .01$), reinforcer ($d = 1.19, p < .01$), victim ($d = .32, p = .02$), and outsider ($d = .53, p = .01$) roles. Further, the mean scores for the victim role were significantly higher than for the bully ($d = .62, p < .01$), assistant, ($d = .66, p < .01$), and reinforcer ($d = .72, p < .01$) roles. Finally, the outsider role had a significantly higher score than the bully ($d = .58, p < .01$), assistant ($d = .64, p < .01$), and reinforcer ($d = .72, p < .01$) roles.

For personal volition, mean scores for the victim role were significantly lower than for the bully ($d = 1.37, p < .01$), assistant ($d = 1.15, p < .01$), reinforcer ($d = .91, p < .01$), defender ($d = .71, p < .01$), and outsider ($d = .75, p < .01$) roles. Further, the mean scores for the bully role were significantly higher than for the reinforcer ($d = .64, p = .04$), defender ($d = .70, p = .02$), and outsider ($d = .73, p = .02$) roles.

Table 21

Significant Pairwise Comparisons for Follow-up Tests for Variations of Social Cognition by Role (Study 4).

Factor	Roles	Bully	Assistant	Reinforcer	Victim	Defender	Outsider
Personal Guilt	Bully						
	Assistant						
	Reinforcer						
	Victim	*	*	*			
	Defender	*	*	*	*		
	Outsider				*	*	
Diffusion of responsibility	Bully						
	Assistant						
	Reinforcer						
	Victim	*	*	*			
	Defender	*	*	*			
	Outsider		*	*		*	
Perceived influence	Bully						
	Assistant						
	Reinforcer	*					
	Victim	*					
	Defender	*	*	*	*		
	Outsider	*	*	*	*	*	*
Social endorsement	Bully						
	Assistant	*					
	Reinforcer	*					
	Victim	*	*				
	Defender	*	*	*			
	Outsider	*	*				
Personal culpability	Bully						
	Assistant						
	Reinforcer						
	Victim	*	*	*			
	Defender	*	*	*	*		
	Outsider	*	*	*		*	
Personal volition	Bully						
	Assistant						
	Reinforcer	*					
	Victim	*	*	*			
	Defender	*			*		
	Outsider	*			*	*	

Note. Significant pairwise comparisons = *.

7.3. Discussion

The current study explored whether there were similarities in social cognitions among people playing the same role after accounting for the influence of the dark triad personality traits. It was hypothesized that there would be significant differences between roles. After controlling for the dark triad traits, cognitions of those in bully roles were distinguished from at least one non-bully role on all social cognitive dimensions.

Personal guilt. This factor explored a participant's personal feelings of guilt for their role in the bullying incident. Results indicated that, after controlling for personality, the victim role was associated with significantly lower levels of guilt than either the bully roles or the outsider. The defender scored significantly lower than all other roles. In contrast to results of the present study, previous research has reported that bully-aligned roles are associated with a lack of guilt (Menesini & Camodeca, 2008). Importantly, however, these findings were based on guilt measures not specific to bullying. Further, previous research has mostly investigated perceptions relating to roles that are typically played by participants. The results of the present study, therefore, suggest that the apparent lower perception of guilt in bully-aligned groups is a consequence of personality (and associated habitual behaviors) rather than role. The present study indicates that people feel higher levels of guilt when playing a bully-aligned role than otherwise. This is not inconsistent with the notion that people who tend to bully tend to experience less guilt globally. Nevertheless, self-serving social goals may still outweigh the influence of an affective guilt response (Sijtsema et al., 2009). For assistants and reinforcers it could be that a desire to fit into the social group largely explains their engagement in that behavior (Menesini et al., 2003b; Olthof et al., 2011). For outsiders, their decision to maintain that role could be attributed to their relationship with the victim, the perceived seriousness of the situation, or their perceived ability to intervene (Forsberg et al., 2014; Pozzoli & Gini, 2013).

Diffusion of responsibility. This factor represents the perception that the presence of others reduces perceived individual responsibility. Results for this factor showed a clear difference between the bully and non-bully roles. In particular, the victim scored significantly lower than the bully-aligned roles. The defender also scored significantly lower than both the bully-aligned roles and the outsider role. Finally, the outsider role scored significantly lower than the assistant and reinforcer. The higher scores for bully roles regarding diffusion of responsibility is not surprising. Previous research has shown behaviors and perceptions of individuals to be strongly influenced by group membership, group norms and social identity (Lodder et al., 2016). It has also been shown that individuals often misperceive norms which could lead to the continuation of bullying (Dillon & Lochman, 2019). Conversely, previous research has shown that perceptions of responsibility to intervene are negatively associated with bullying and positively associated with defending behavior (Pozzoli & Gini, 2013). It has also been reported that those playing outsider roles tend to exhibit lower trait extraversion and poor social skills (Mazzone et al., 2018; Pronk et al., 2015). Such factors are likely to function as barriers to prosocial behavior and encourage moral disengagement (Thornberg & Jungert, 2013).

Perceived influence. This factor explored the perceived influence that a participant believed they had on others. The results showed that the defender scored significantly higher on this factor than all other roles. Conversely, the outsider scored significantly lower than both the bully roles and the victim role. Finally, the bully scored significantly higher than the reinforcer and victim. The higher perceived influence of both the bully and defender has been associated with higher social influence (Olthof et al., 2011). This higher level of perceived influence, particularly among the bully group, could be associated with their social status and power more broadly (Juvonen & Galven, 2008). The disparity in perceived influence between defender and outsider roles is consistent with the suggestion that social self-efficacy may

influence behavior over and above that attributable to personality alone. Individuals who take up the defender role have been shown to have a higher level of self-efficacy compared to outsiders (Thornberg & Jungert, 2013). Comparisons between outsiders and defenders have also shown the former to be associated with a higher fear of punishment (punishment sensitivity) which prevents them from taking up a defender role (Pronk et al., 2015).

Social endorsement. This factor explored the perception that bullying behaviors are accepted or condoned. There was a clear difference in these perceptions between the bully and non-bully roles with bully roles scoring higher than the non-bully roles. This indicated that those in bully-aligned roles tended to accept the bullying behaviors while those playing non-bullying roles condemned them. The focal bully role scored significantly higher than all other roles. The assistant role scored significantly higher than all non-bully roles. Further, the reinforcer role scored significantly higher than the defender.

The characterization of the bully as the most dominant person may explain why this group scored higher on perceived social endorsement (Salmivalli et al., 1996b). Their leadership and dominance could dictate to the social group behaviors considered acceptable. The dominance by bullies could also lead to a higher level of approval from bully-aligned others such as the assistant and reinforcer. This level of approval may determine the likelihood of continuation of the behavior (Burns et al., 2010; Sandstrom et al., 2013). For the assistant and reinforcer their approval of the behavior could be based on their need to fit in or an acquiescence strategy to prevent them from also being targeted (Atlas & Pepler, 1998; O'Connell et al., 1999).

Personal culpability. This factor explored a participant's perceived sense of fault under the prevailing circumstances, norms, and rules. In the SCBM-R, this perception can be distinguished from the affective response to involvement as represented by the personal guilt factor. Results indicated that the defender scored significantly higher than all other roles. This

is of substantial interest given that they had the lowest score for affective guilt. Put simply, individuals playing the defender role tend to behave in the manner they judge to be morally right (Forseberg et al., 2014; Pozzoli & Gini, 2013). After accounting for the impact of personality, both victim and outsider also scored significantly higher than the bully-aligned roles. The higher perception of culpability for the outsider group indicates that it is likely that other factors such as self-efficacy act as barriers to a more active role (Gini et al., 2008). Constant victimizing could also lead the victims to perceive themselves negatively and therefore feel personally culpable for them being in that specific role (O'Moore & Kirkham, 2001).

Personal volition. This factor explored an individual's view regarding their ability to act, being distinct from either their duty as represented by the culpability factor or moral obligation as reflected by guilt. Results indicated that the victim group scored significantly lower than all other groups. The bully role scored significantly higher than the reinforcer, defender, and outsider roles. That the victim group scored the lowest on this factor was not surprising as previous research has shown similar findings (Trépanier et al., 2016). The pernicious combination of guilt and helplessness experienced by victims is consistent with the very poor long-term outcomes for this group.

Strengths and limitations. A strength of this study was that participants were allocated to roles that they may not have typically played. Further, social cognitions were explored based on actual bullying incidents. This contrasts with previous research which explored typical roles participants played and social cognitions not specifically related to bullying incidents. Nevertheless, several limitations are also acknowledged. Firstly, participants can only report upon roles they have played at least once. For this reason, both personality and environmental factors may still exert some influence on results, albeit to a lesser extent than would be the case for research focusing on roles typically played.

Secondly, the internet-derived convenience sample may be subject to self-selection bias. The sample may tend to be higher than the norm on altruism or have a particular interest in bullying. Future research should therefore investigate cohorts with known characteristics. Such research would be quite feasible in contexts where organizational climate and associated individual wellbeing are of interest and often investigated. For instance, workplaces often have annual employee surveys which canvas a range of organizational and wellbeing goals. Similar surveys are often conducted in school environments. Such surveys would be an ideal vehicle for the further investigation of role-congruent social cognitions related to bullying.

Finally, the SCBM-R measure employed in the present study may benefit from ongoing development and psychometric testing as it was specifically devised for the present program of research. Presently, the personal volition subscale is only represented by three items. It would be useful to identify further items which load on this cognition. It is of note that factor analyses reported in Study 3 allowed the broader concept of responsibility to intervene to be divided into three specific cognitive domains: social endorsement, personal culpability, and personal volition. This specificity may allow more fine-grained of targeting of interventions. Nevertheless, they are also likely to vary with context and cohort. Additional research should investigate the extent to which items employed in the present study are generalizable to a range of situations.

Summary. This study explored social cognitions associated with different participant roles while controlling for the influence of the dark triad personality factors. In contrast with previous research, similarities were found in the social cognitions among individuals playing a particular participant role. It is likely that these findings have been masked in previous research by the larger (but less tractable) influence of personality. The understanding that individuals do experience cognitions appropriate to the roles they play provides substantial

hope for the development of broad-based interventions which may harness salient social identities to promote prosocial behaviors.

Chapter 8: General Discussion

Bullying is a universal issue which varies in prevalence across countries and cultures, although cultural variation in the extent to which it is condoned may sometimes mask the true prevalence. Large international studies have been conducted using adolescent populations. One study spanning 40 countries reported national prevalence ranging from 4.8% to 45.2% (Craig et al., 2009). Similarly, a study encompassing 35 countries reported prevalences ranging from 4.1% to 36.3% (Due et al., 2009). It has been reported that “the prevalence of bullying in Australia is a national crisis. The majority of Australian students have been bullied and one in five of these are bullied at least weekly” (Fell, 2019, para. 4). Further, there is little reason to believe that bullying is less prevalent for adults in the workplace. Research by Beyond Blue, an Australian peak body which aims to assist people experiencing depression, anxiety, and suicidal ideation, reports that almost half of working adults in Australia have experienced workplace bullying at least once (Powell, 2016).

Notably, irrespective of the specific role played in a bullying incident, bullying is associated with substantial poor psychosocial outcomes and both short- and long-term health problems. These include depression, anxiety, substance use, suicide, adjustment disorders, and PTSD symptoms (Barchia & Bussey, 2010; Malecki et al., 2014; Radliff et al., 2012; Reed et al., 2015; Salin, 2015). In addition, involvement in bullying in any capacity is associated with poor performance, lower productivity, and poor organizational climate in educational, workplace, and other institutional environments (Islamoska, Grynderup, Nabe-Nielsen, Høgh, & Hansen, 2018; Ponzio, 2013).

Given that bullying is both prevalent and associated with poor outcomes, a deeper and more comprehensive understanding of the phenomenon is required. To date, no unified theoretical approach to explain the phenomenon of bullying has emerged (Mishna, 2012; Swearer et al., 2009). Nevertheless, perspectives related to social cognitive and social identity

approaches are becoming more prominent (Maunder & Crafter, 2018; Jenkins, Demaray, & Tennant, 2017; Nesdale, 2017; Thornberg, Wänström, Hong, & Espelage, 2017).

Specifically, there is increasing recognition of the nuanced interplay between those playing a range of roles in the contexts in which bullying occurs. Specifically, Salmivalli et al. (1996b) has suggested six roles: bully, assistant, reinforcer, victim, defender, and outsider. Broad consensus is emerging around such a model, although refinements regarding the boundaries between roles and hence the number of roles continue to be suggested (Belacchi & Farina, 2018). Also, it is sometimes useful to identify the bully-oriented roles (bully, assistant, and reinforcer, also referred to as hostile roles) and non-bully roles (victim, defender, and outsider, also referred to as prosocial roles) (Belacchi & Farina, 2018).

In previous literature there has tended to be a stronger focus on the roles of bully and victim than on other roles (Cook et al., 2010; Lodder et al., 2016). This is in spite of studies identifying the roles of the assistant, reinforcer, defender, and outsider as also playing a part in precipitating and maintaining bullying behavior (Salmivalli et al., 1996b). Further, roles played in bullying contexts are dynamic such that people play different roles in different bullying situations (Huitsing & Veenstra, 2012). The impact of others on bullying behavior, however, remains underexplored (Swearer et al., 2009). Furthermore, given that roles are fluid, it is useful to identify social cognitions associated with specific roles rather than specific individuals or personality dimensions. The studies reported here provide initial evidence that patterns of social cognitions can be identified for each participant role. Social cognitions associated with specific roles, therefore, may suggest targets for organizational or community level interventions in contexts where bullying is endemic.

A review of the literature initially identified four broad domains of social cognitions commonly explored by researchers: guilt, responsibility, influence, and attitudes.

Nevertheless, previous research exploring social cognitions in bullying is plagued by

methodological limitations. These include (1) not exploring the full range of social cognitions, (2) not specifically associating social cognitions with bullying scenarios, (3) not providing a definition of bullying to participants, and (4) conceptualizing roles as static. The present program of research has sought to establish a research direction which addresses these limitations. Firstly, this research includes two factor analytic studies which canvassed a large item pool to explore the range and structure of social cognitions in bullying. This resulted in a six-factor conceptualization, the factors being personal guilt, diffusion of responsibility, perceived influence, social endorsement, personal culpability, and personal volition. Secondly, the present research asked participants to recall an actual bullying incident from their lived experience. Thirdly, a definition of bullying consistent with predominant conceptualizations was provided to participants. Researchers have suggested that variations in study findings can be attributed to differences in definitions (Arora, 1996; Kert, Coddling, Tryon, & Shiyko, 2010; Mishna, 2012; Vaillancourt et al., 2008). For all studies that form the basis of this thesis, participants were provided with a definition of bullying that contained three characteristics: intent to harm, repetition, and imbalance of power. These were included as they are characteristics most commonly used to define bullying. Fourthly, participants were asked to consider a randomly allocated role rather than a role consistent with their personality or recent behaviors.

8.1. Overview of Key Findings

Considering the lack of clarity regarding the reasons why people adopt specific roles outlined by Salmivalli et al. (1996b), the current study set out to create a measure to capture the range of psychosocial cognitions associated with bullying. In particular, a measure was designed to explore social cognitions under the broad themes of guilt, responsibility, influence, and attitudes related to a specific bullying incident that a participant could recall. This measure was titled the “Social Cognitions in Bullying Measure” (SCBM) and was

evaluated in Chapter 4 (Study 1). Analyses indicated four distinct social cognitive dimensions: personal guilt, diffusion of responsibility, perceived influence, and responsibility to intervene. The SCBM provided a framework for the exploration of bullying from the perspective of the broader social context. This offers a basis for research to understand the attitudes and behaviors associated with bullying roles and how the individuals playing those roles perceived themselves and others.

This first study allowed preliminary identification of important social cognitive dimensions associated with bullying. Little previous research has sought to comprehensively identify the nature and latent structure of such cognitions. Importantly, these domains did not simply mirror the broad themes from which items were derived. Nevertheless, there is clearly both the need and scope to further develop this model. Additional items, therefore, were developed based on these emergent dimensions. Data were gathered from a second cohort to further explore the model. Broadly, the new data reflected the dimensions suggested by the first study. Notably, however, the *responsibility to intervene* factor split into three more nuanced cognitions, yielding six social cognitive dimensions in total. These were: personal guilt, diffusion of responsibility, perceived influence, social endorsement, personal culpability, and personal volition. The resulting measure was titled “Social Cognitions in Bullying Measure-Revised” (SCBM-R).

The development of the SCBM allowed for the exploration of the extent to which cognitions were similar within roles and conversely differed between roles (Study 2). Notably, participants were asked to consider a role they may not typically play. The study, therefore, had a stronger focus on role and less of a focus on individual characteristics compared to approaches taken in most previous research. Some findings were dissimilar to those previously reported: (1) bullying roles tended to elicit higher guilt than non-bullying roles, (2) there was a trend for the outsider role to be associated with the lowest scores

regarding responsibility to intervene, (3) the bully role was associated with the greatest perceived social influence, and conversely, victim and outsider roles were associated with the lowest perceived influence, (4) bully-oriented roles tended to be associated with higher diffusion of responsibility than non-bully roles other than the outsider. As little research has previously explored social cognitions according to role this makes a significant contribution to the bullying literature.

The finding that bully-oriented roles elicited higher guilt than non-bullying roles is in stark contrast to results of previous research which indicate that individuals who tend to adopt bullying-oriented roles have a propensity to experience less guilt in general (Mazzone et al., 2018; Olthof et al., 2000). It is of note that this does not contradict the findings of the present program of research. Specifically, while those who tend to adopt bully-oriented roles also tend to experience less guilt, they may nevertheless experience more guilt when considering or fulfilling bully roles than otherwise. In the present research, the defender role was associated with the lowest level of guilt. Again, this is in contrast to, but not inconsistent with, previous research indicating that individuals who tend to experience guilt more keenly also tend to adopt the role of defender (Menesini & Camodeca, 2008). The present research indicates that such individuals are, nevertheless, likely to experience less guilt when fulfilling the defender role than they would otherwise.

The final study in the present program of research (Study 4) commenced the research agenda of integrating role-based and individual difference-based perspectives of bullying. The focal question was the extent to which role predicted variance in social cognitions over and above that predicted by salient personality traits as represented by the dark triad. Such traits are strongly related to bullying behaviors (Paulhus & Williams, 2002). Random allocation of participants to specific roles allowed role to be a predictor variable and reduced the extent to which role was confounded with personality. Previous research has frequently

utilized peer nomination to establish the role an individual is *likely* to play. In contrast, this study demonstrated similarities in social cognitions among individuals playing the same participant role. Importantly, these similarities were not solely attributable to personality. Rather, results indicate that each role is associated with an identifiable social cognitive profile. The influence of this profile is separable from that attributable to personality.

8.2. Theoretical Implications

The current research was the first to attempt to identify role-related social cognitions, conceptualized from the perspective that roles are dynamic rather than fixed. While dispositional differences play a substantial role, shared role-congruent social cognition profiles may also contribute to behavior. The differences between the social cognitions associated with each role provide valuable information about how people perceive their role in a specific bullying incident and how the role of others may impact their perceptions and behaviors. Integrating perspectives, the present research suggests that, while there may be trait-level individual differences in social cognitions, state-level variations related to the social environment are superimposed upon them. Such state-level variations are likely to be socially constructed and hence apt targets for intervention.

The current research provides support for the idea that social group influences related to bullying incidents exist and indeed play an important role in shaping behavior in bullying scenarios. In particular, the current findings provide support for general social theories, such as Bandura's (1978) social learning theory, as the current research indicates that peer interactions may influence participant roles in bullying scenarios despite variations in dispositional traits. Interventions could target social norms favoring cognitions associated with prosocial roles. This could include fostering a shared sense of responsibility and highlighting avenues for prosocial influence. It is realistic to hope that such interventions could be effective as substantial research confirms that perceived in-group norms have a

powerful impact on behavior (Cialdini & Goldstein, 2004; Kubiszewski, Auzoult, Potard, & Lheureux, 2019; Maunder & Crafter, 2018). Nevertheless, further research is needed to confirm that the social cognitive profiles associated with specific behaviors related to bullying are amenable to such influence.

8.3. Practical implications

This research extends our knowledge of how the social environment can have a significant impact on each participant role in a bullying scenario. Results indicate that people can experience role-congruent changes in social cognitions which are superimposed on those attributable to individual differences. Nevertheless, consistent with previous research, results of this program of research also confirm that substantial variation in social cognitions is attributable to personality. Undoubtedly, individuals with particular personality profiles are more likely to assume specific roles in the bullying context. The current findings, however, demonstrate that it is overly pessimistic to assume that perceived norms and habitual behaviors cannot be changed.

In addition to addressing group norms, interventions could incorporate a psychoeducational component. Perceptions regarding the six dimensions measured by the SCBM-R may be malleable. For example, individuals often overestimate the extent to which bullying is socially endorsed (Dillon & Lochman, 2019; Jacobson et al., 2018). Similarly, individuals often underestimate their social influence or do not possess the specific social skills which would allow them to be more influential (Jenkins et al., 2016). Given that each role is associated with a particular social cognitive profile on the SCBM-R dimensions, it seems reasonable to suggest that interventions addressing these perceptions may ultimately lead to behavioral change. Discussions highlighting the impact of the range of roles identified by Salmivalli et al. (1996b) could easily be adapted to a range of school, workplace, and

other institutional environments. Such an approach is also applicable at the broader community level.

In the school context, research has reported positive impacts of interventions targeting cognitions associated with various roles. A study spanning 28 Finnish schools examined intention to change among students who had adopted the bully role (Garandau, Vartio, Poskiparta, & Salmivalli, 2016). While a blaming strategy was ineffective, condemning the behavior without blaming was associated with intention to change. This strategy targets perceived norms. Similarly, empathy arousal strategies also had a positive impact. This could be regarded as a psychoeducation strategy.

Despite increased intervention efforts, however, research evidence indicates that some bullying interventions have low effectiveness or are ineffective (Yeager, Fong, Lee, & Espelage, 2015). There is evidence that this may be attributable to a range of nuanced interaction effects. One such effect is the “healthy context paradox” noted by several studies (Huitsing et al., 2019). In this scenario, individuals who are victims of bullying despite efforts to promote anti-bullying norms experience out-group distress more keenly and manifest more depressive symptoms.

Similarly, attributing blame regarding anti-social behaviors may impact the effectiveness of interventions aiming to change norms by inadvertently labelling those who adopt anti-social behaviors as an out-group to whom the norms may not apply (Garandau et al., 2016). The conceptualization of multiple roles beyond bully and victim, however, suggests avenues to avoid these paradoxical effects. Specifically, bystanders, due to their initial neutral orientation, may be more amenable to interventions targeting a range of cognitions. A qualitative study by Thornberg, Landgren, and Wiman (2018) suggests that bystanders intention to intervene is contingent on perceptions in six domains: “(a) seriousness of the situation, including trivialization; (b) social relationships with those involved; (c) locus

of responsibility, including displacement of responsibility, and victim blame; (d) social status; (e) perception of risk; and (f) defender self-efficacy” (p. 400). These perceptions are strikingly similar to the six social cognitions in bullying dimensions of the SCBM-R: personal guilt, diffusion of responsibility, personal influence, social endorsement, personal culpability, and personal volition. To date, no intervention has sought to target all six of these domains. This conceptualization therefore, which is broadly consistent with the qualitative findings by Thornberg et al. (2018), provides an avenue for further development of existing broad-based intervention strategies.

The suggestion of targeting roles outside the bully-victim dyad may also provide an avenue to circumvent apparent cultural differences in the effectiveness of interventions. Specifically, the cognitions of those assuming the auxiliary roles of defender, outsider, assistant, or reinforcer may be more malleable. Broadly, cultural context could be considered the macro system, auxiliary roles part of the mesosystem and the bully-victim dyad a specific microsystem. A recent meta-analytic review of school bullying interventions globally reported substantial variation between countries (Gaffney, Farrington, & Ttofi, 2019). Across 22 countries for which data were available, the mean effect of intervention was positive in 16 cases, neutral in two cases, deleterious in four cases. The strongest positive effects were evident in Czechoslovakia, Ireland, Hong Kong, and Greece while the strongest negative effect was evident in Zambia. Nevertheless, the overall effectiveness indicated a mean reduction of approximately 20% for bullying perpetration. While it could be speculated that norms regarding power relationships may differ across cultures there is presently little research to confirm this factor as the key moderator giving rise to the heterogeneous results. Nevertheless, broad-based interventions targeting normative cognitions at the mesosystemic level have the twin advantages of reduced blame and marginalization and increased support for prosocial behaviors by others in the broader social context in which bullying occurs.

8.4. Strengths, Limitations, and Future Research

Strengths. The main strength the present program of research is that it proposes and establishes a new approach to bullying research. Findings from the current research highlight the practical value in establishing the profile of social cognitions experienced by individuals fulfilling any of the several established roles in social contexts where bullying occurs. A central motivating rationale is that cognitions shared by those fulfilling a particular role may be more amenable to intervention than individual difference variables such as personality traits. To shift the focus from individual characteristics to shared cognitions, it was necessary to ask participants to recall an actual incident where they played a randomly allocated role. This role would typically differ from that most often assumed by the participant.

A necessary precondition for establishing the social cognitive profiles associated with bullying roles is that such cognitive profiles can be measured. This research, therefore, established and refined the Social Cognitions in Bullying Measure-Revised (SCBM-R). This demonstrated that social cognitions related to bullying incidents are subsumed by six interpretable dimensions: personal guilt, diffusion of responsibility, perceived influence, social endorsement, personal culpability, and personal volition. It was found that mean scores on these dimensions differed across the six roles of bully, assistant, reinforcer, victim, defender, and outsider. Importantly, such differences were evident even after accounting for the influence of the personality dimensions of psychopathy, Machiavellianism, and narcissism. The research outcomes provide further support for examining bullying from a social ecological perspective. These findings fit well into the underexplored area of bullying that focuses on the relationships between individuals and their peers within social networks.

Limitations. Despite these strengths, several limitations are evident. While it is desirable to gather data regarding actual incidents, behaviors, and cognitions, participants can only report on roles that they can recall fulfilling at least once. It is, therefore, challenging to

entirely eliminate the influence of individual differences and habitual behaviors. This challenge may be further exacerbated by self-selection bias as it is possible that the motivation to participate was partly altruistic. Similarly, the self-report responses are likely subject to social desirability bias. Whilst challenging, future research could attempt to develop methodologies which account for these possible biases, although such methodological impediments are pervasive in any research addressing anti-social behavior. One way to address such self-report challenges is to gather data via other-report or direct observation. Nevertheless, such methods typically require substantial resources if sufficient data are to be gathered to increase the reliability of results. An alternative strategy would be to ask participants to report on several participant roles, possibly starting with roles deemed more socially desirable. In this case, the trade-off would be increased participant load.

Given that many of the incidents reported occurred in school or school-based cliques, it is possible that participant recall was colored by the developmental context and social competence at the time of the incident. It is not suggested, however, that this factor diminishes the impact of such incidents or salience to the individual. Adolescence and young adulthood coincide with the identity formation developmental stage which may explain the lasting impact of the incidents described by participants. Further, according to Erikson's theory, failure to successfully master the psychosocial crisis associated with a particular developmental stage, in this case identity formation, impedes the ability to successfully progress through subsequent stages (Schumacher & Camp, 2010; Toscano, 2010). This includes the ability to form interpersonal bonds, play a valued role in the community and develop an autonomous and healthy ego identity. These factors are all strongly and causally linked to a range of adverse outcomes including suicidality and psychopathology, especially depression (Cockshaw et al., 2014a; Van Orden, Witte, Cukrowicz, Braithwaite, Selby, Joiner, 2010).

A further challenge associated with the present program of research and similar research employing retrospective reports is that some individuals may not have insight regarding the role they played, and hence not report incidents that others would regard as salient. It is likely that this is especially true for individuals assuming a bully-oriented role and who display low levels of empathy (Deniz & Ersoy, 2016). Further, given the retrospective nature of reports, it is plausible that participants reporting anti-social roles developed a sense of guilt regarding the incidents as they became more emotionally competent through young adulthood. It could be suggested, therefore, that the guilt reported by participants was not experienced at the time the incidents occurred. This likely scenario is supported by studies indicating that empathy arousal is effective in reducing bullying among adolescents (Garandeanu et al., 2016). Furthermore, interventions including empathy induction have been shown to be effective in randomized controlled trials in several countries (Nocentini & Menesini, 2016).

The present research controlled for the influence of dark triad personality variables, specifically Machiavellianism, psychopathy, and narcissism. These traits have been shown to be associated with bully-aligned behaviors (Baughman et al., 2012). The present research did not consider personality variables which may be associated with prosocial or victim roles. A group of variables that may be particularly relevant to these roles is early maladaptive schemas (EMS) (Alba, Calvete, Wante, Van Beveren, & Braet, 2017). From a schema therapy perspective, EMS form when early childhood needs for nurturance, acceptance, and protection are not met. EMS are categorized into five overarching domains, together spanning 18 specific schemas. These schemas are regarded as maladaptive and predict a range of interpersonal difficulties across the lifespan (Janovsky, Rock, Thorsteinsson, Clark, & Murray, 2020).

Calvete, Fernández-González, González-Cabrera, and Gámez-Guadix (2017), have reported that maladaptive schemas in the rejection domain mediate the association between a range of risk factors and bullying victimization. The risk factors included factors mediated by rejection domain schemas previous victim status, family abuse, and social anxiety. Further, the cross-sectional association between the rejection domain and victim status was large. The researchers also found the domains of other-directedness, and disconnection and rejection predicted higher levels of depressive symptoms in response to bullying (Alba et al., 2017). These findings indicate that schema therapy may be an appropriate intervention for individuals who experience ongoing bullying victimization. This is especially the case for those experiencing depressive symptoms or other psychopathology. Research indicates that schema therapy can be successful in addressing underlying patterns and psychopathology which may be challenging to address using other interventions (Jacob & Arntz, 2013).

Future research. The present research establishes the feasibility of an approach based on variation in bullying-related cognitions depending on the role. This is a logical extension of the trend in bullying research to examine several roles beyond the bully-victim dyad. There is, however, a substantial need for ongoing research to confirm and extend upon the findings presented here. While six social cognitive dimensions were identified in the SCBM-R, there was a considerable tendency for items in the original item pool to cross-load. Similarly, substantial associations between the six subscales were evident. There is, therefore, a need for ongoing development and validation of measures of social cognitions in bullying. In particular, studies could investigate the applicability of the identified cognitive domains in a range of organizational and cultural contexts.

The need to extend this work to a range of specific contexts also applies to the pattern of cognitions associated with each role. Ideally, studies would aim to obtain samples demonstrably representative of institutional contexts where bullying occurs. Such studies

might also enable richer descriptions of social processes by gathering both qualitative and quantitative data or triangulating self and other report. This may address biases associated with desirability. Further, research in specific institutional or community contexts might afford the opportunity to test interventions based on the social cognitions identified in the present research. The extent to which such interventions might impact actual behavior is presently unknown. Nevertheless, broader findings in areas such as self-identity theory (Abrams & Hogg, 1990; Tajfel & Turner, 1986) and social learning theory (Bandura, 1978) are promising.

This research included the development of two scales: the SCBM and the SCBM-R. Item generation was informed by the themes of guilt, influence, responsibility, and attitudes, indicated by review of the literature. It is notable that the iterative item development process resulted in a revised scale measuring cognitions on six dimensions. This data-driven procedure served to reduce the impact of experimenter bias which may have influenced the initial item development process. Nevertheless, other item generation strategies may have further ameliorated the possible impact of experimenter bias and allowed the identification of cognitive domains other than those considered. One strategy, for example would be to incorporate an initial item development process in which a range of participants were asked open-ended qualitative questions regarding bullying. Thematic analysis would then allow identification of prospective domains.

The present research provided participants with a definition of bullying, specifically any actions which are characterized by an intent to harm, repetition, and power imbalance. An advantage of providing such a definition is that it elicits participant responses to such behaviors, even if they would not regard the behaviors as bullying. Nevertheless, this approach also presents limitations that could be addressed in future research. Firstly, presenting such a definition may bias recollection (Roese & Vohs, 2012). The exact choice of

language may cause some memories to be more accessible than others. An additional possible bias is the hindsight bias in which participants believe that “they knew it all along.” Another limitation in research where a definition is provided is that participant understandings of bullying cannot be explored. This is an important aspect of bullying research as systemic reactions to bullying are contingent upon understandings of what bullying is. Teachers, for example have tended to focus upon bullying which causes physical rather than psychological harm (Hazler et al., 2001; Naylor et al., 2006).

Selection bias may also have influenced results of this research. It is likely that respondents to an internet survey on bullying do not provide a representative sample of the general population in key areas such as group identification and personality dimensions. It could be suggested, for example, that victims of bullying or individuals with more altruistic motives would be more likely to respond. This may limit generalizability of this research. Nevertheless, the cognitive *domains* described are likely to apply across the population, even if scores on those domains may differ between those more or less likely to respond to such a survey. Two interrelated challenges in the study of any anti-social behavior are the lower propensity for perpetrators to respond and the lower propensity for them to be truthful if they do so. Future research should consider triangulating results from a range of methods such as direct observation, other report, and self-report to reduce the impact of such biases. Nevertheless, as the implementation of multiple methods is resource intensive, it may be necessary to synthesize the results of multiple studies to achieve these ends.

8.5. Conclusion

This research has highlighted distinct profiles of social cognition for each of the broader range of roles identifiable in contexts where bullying occurs. While ongoing research is required, initial results also indicate that the impact of assuming a particular role is separable from the influence of individual difference variables such as personality traits.

Further, individuals are able to identify nuanced cognitions on several related but distinct dimensions. Broadly, social cognitive theories suggest that cognitions shared by individuals when adopting a particular role are amenable to social influence. These role-based profiles of social cognitions in bullying may, therefore, provide much needed novel and effective intervention targets to reduce the prevalence and impact of bullying.

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Appendices

Appendix A: Ethics Approval for Study 1

23rd September 2014

Dr Merv Jackson
Building 201 level 3, Room 8
School of Health Sciences
RMIT University

RMIT University

**Science Engineering
and Health**

**College Human Ethics
Advisory Network
(CHEAN)**

Plenty Road
Bundoora VIC 3083

Dear Merv

BSEHAPP 23-14 JACKSON-YOUNAN Differences in self perceptions of the various participants associated with bullying in social groups

ASEHAPP 29-15 JACKSON-YOUNAN Character profiles of the participant roles associated with bullying

PO Box 71
Bundoora VIC 3083
Australia

Tel. +61 3 9925 7096
Fax +61 3 9925 6506
• www.rmit.edu.au

Thank you for submitting your amended application for review.

I am pleased to inform you that the CHEAN has approved your application for a period of 6 Months from the date of this letter to 23rd March 2015 and your research may now proceed.

The CHEAN would like to remind you that:

All data should be stored on University Network systems. These systems provide high levels of manageable security and data integrity, can provide secure remote access, are backed up on a regular basis and can provide Disaster Recover processes should a large scale incident occur. The use of portable devices such as CDs and memory sticks is valid for archiving; data transport where necessary and for some works in progress. The authoritative copy of all current data should reside on appropriate network systems; and the Principal Investigator is responsible for the retention and storage of the original data pertaining to the project for a minimum period of five years.

Please Note: Annual reports are due on the anniversary of the commencement date for all research projects that have been approved by the CHEAN. Ongoing approval is conditional upon the submission of annual reports failure to provide an annual report may result in Ethics approval being withdrawn.

Final reports are due within six months of the project expiring or as soon as possible after your research project has concluded.

The annual/final reports forms can be found at:

www.rmit.edu.au/staff/research/human-research-ethics

Yours faithfully,

Dr Linda Jones

Chair, Science Engineering & Health

College Human Ethics Advisory Network

Cc CHEAN Member: Daryl D'Souza School of Computer Science & IT RMIT University Student
Investigator/s: Ben Younan s3360497 School of Health Sciences RMIT University

Appendix B: Study 1 Overview

INVITATION TO PARTICIPATE IN A RESEARCH PROJECT

Project Title: Differences in self-perceptions of the various participants associated with bullying in social groups

Investigators:

Mr. Ben Younan, BPsySc (LaTrobe), PGDipPsych (Bond). Email: ben.younan@rmit.edu.au

Dr. Merv Jackson, BSc(Hons) (Monash), MBehSc (LaTrobe). Email: merv.jackson@rmit.edu.au

Dear Participant

Thank you for taking time out to complete this questionnaire being conducted as part of a research project being conducted by RMIT University. Please read this information page carefully and be confident that you understand its contents before deciding whether to participate. If you have any questions about the project, please ask one of the investigators.

Who is involved in this research project? Why is it being conducted?

The study will be conducted by Dr. Merv Jackson (senior lecturer) and Ben Younan (research student) as part of a Master of Science (Psychology) degree. This study is investigating the self-perceptions on various participants associated with bullying in social groups.

If I agree to participate, what will I be required to do?

As part of this study you are invited to complete an online questionnaire that will investigate a specific bullying incident from your childhood. You will be asked questions about the role that you played within the incident and questions that will look at your self-perceptions about certain factors within that incident. As part of this study you will not be asked any sensitive questions that will identify any parties. This project will use an external site to create, collect and analyse data collected in a survey format. The site we are using is Qualtrics. If you agree to participate in this survey, the responses you provide to the survey will be stored on a host server that is used by the researchers. No personal information will be collected in the survey so none will be stored as data and all information will be kept secured with password protection. Once we have completed our data collection and analysis, we will import the data we collect to the RMIT server where it will be stored securely for five (5) years. The data on the Qualtrics host server will then be deleted and expunged.

What are the possible risks or disadvantages?

There are no perceived risks outside your normal day-to-day activities

What are the benefits associated with participation?

Your participation will be appreciated and will contribute to further research into bullying.

What are my rights as a participant?

If you feel the need to withdraw from the study at any time you may do so by closing the window. No partially completed questionnaires will be used in the study. Any information that you provide can be disclosed only if (1) it is to protect you or others from harm, (2) if specifically required or allowed by law, or (3) you provide the researchers with written permission. The project will expect to gather in total 150 participants. The results of this study will be presented in a journal publication. Please note that participation in this study is completely voluntary and all data will be collected anonymously with no identifiable information will be collected during the completion on this study and all data will be stored in a secure location.

What will happen to the information I provide?

The research data will be kept securely at RMIT for 5 years after publication, before being destroyed. Whereas the final research paper will remain online. Because of the nature of data collection, we are not obtaining written informed consent from you. Instead, we assume that you have given consent by your completion of the questionnaire

Whom should I contact if I have any questions?

If you are unduly concerned about your responses to any of the questionnaire items or if you find participation in the project distressing, you should contact Dr. Merv Jackson at merv.jackson@rmit.edu.au or on 9925 7367 or you can contact Mr. Ben Younan at ben.younan@rmit.edu.au where they will discuss your concerns with you confidentially and suggest appropriate follow-up, if necessary.

Yours sincerely

Mr. Ben Younan, BPsySc (LaTrobe), PGDipPsych (Bond).

Dr. Merv Jackson, BSc(Hons) (Monash), MBehSc (LaTrobe).

If you have any concerns about your participation in this project, which you do not wish to discuss with the researchers, then you can contact the Ethics Officer, Research Integrity, Governance and Systems, RMIT University, GPO Box 2476V VIC 3001. Tel: (03) 9925 2251 or email human.ethics@rmit.edu.au

Appendix C: Complete 56-item pool

SCBM measure items		
1.	SCBM-PG	I felt guilty despite continuing my actions
2.	SCBM-PG	I felt guilty after the incident
3.	SCBM-PG	I felt pressure from peers to act in a certain way
4.	SCBM-PG	I felt that I was the most dominant person in that incident
5.	SCBM-PG	My attitudes were different to the role I played
6.	SCBM-PG	The influence of others made me act that way
7.	SCBM-PG	I believed that the role I played would make me more popular
8.	SCBM-PG	I believed it was necessary to behave in the way I did
9.	SCBM-PG	I felt that I was only partly at fault
10.	SCBM-PG	I felt that I was responsible for what happened
11.	SCBM-RI	I approved of bullying despite my role
12.	SCBM-RI	I believed that if people got bullied, they deserved it
13.	SCBM-RI	I believed it was someone else's problem to intervene and stop the bullying
14.	SCBM-RI	I disapproved of bullying despite my role
15.	SCBM-RI	It was not my responsibility to help the person being victimized
16.	SCBM-RI	The victim was responsible for the situation they were in
17.	SCBM-PI	I understood that what I was doing was wrong despite my actions
18.	SCBM-PI	The role I played had an influence on others
19.	SCBM-PI	The role I played influenced others to get involved in the incident
20.	SCBM-PI	During the bullying incident I felt I could have stopped the bullying
21.	SCBM-PI	I believed that the bully felt guilty for their actions
22.	SCBM-DR	The more people that were involved made me feel less guilty
23.	SCBM-DR	The more people that were involved made me feel less responsible
24.	SCBM-DR	The roles of others made me feel less guilty
Non-Loading Social cognition items from study 1		
25.	G1	I did not feel any guilt for my actions
26.	G2	Other people should have felt more guilty than me
27.	G7	The more people that were involved made me feel more guilty
28.	G9	The role I played should have made others feel more guilty
29.	G10	I believed that I didn't feel guilty because others didn't feel guilty
30.	R2	The less people that were involved made me feel less responsible
31.	R3	I was responsible for the role I played
32.	R7	It was not my fault for what happened
33.	I3	I believed that anything I did would impact the person after the bullying stopped
34.	I4	There was no influence on my decisions to act in that certain way
35.	I7	The role I played made more people join in the bullying
36.	I8	I believed that I could have changed my role if I wanted to
37.	I9	I believed that anything I did would not impact the person after the bullying stopped
38.	A7	I believed that the situation I was in had a serious impact on others
39.	A10	There was a clear social group process to the bullying incident
Additional items added to the original SCBM item pool		
40.	PG1	I felt guilty for the role I played in the incident
41.	PG2	I did not feel guilty for my actions during the incident
42.	RI1	I was not responsible for anyone else's actions
43.	RI2	I was to blame for the role that I found myself in
44.	RI3	I tried to stop the bullying
45.	RI4	I thought the bullying was acceptable
46.	RI5	I was not responsible for the incident
47.	PI1	I influenced other people to get involved in the incident
48.	PI2	I was responsible for influencing the behaviour of others
49.	PI3	I could have made anyone act any way I wanted them to
50.	PI4	I felt I instigated the incident
51.	DR1	My attitudes towards bullying were not influenced by my peers
52.	DR2	I felt that I had to play that particular role
53.	DR3	I did not choose the role I played
54.	DR4	I felt pressured to behave the way I did
55.	DR5	The more people involved made me feel less responsible for my actions
56.	DR6	The more people involved made me feel less guilty for my actions

Note. SCBM-PG = SCBM personal guilt, SCBM-RI = SCBM responsibility to intervene, SCBM-PI = SCBM perceived influence, SCBM-DR = SCBM diffusion of responsibility, G = guilt, R = responsibility, I = influence, A = attitudes, PG = personal guilt, RI = responsibility to intervene, PI = perceived influence, DR = diffusion of responsibility.

Appendix D: Ethics Approval for Study 3



College of Science, Health & Engineering
 College Human Ethics Advisory Network (CHEAN)
 Email: seh-human-ethics@rmit.edu.au
 Tel: (61 3) 9925 4620
 Building 91, Level 2, City Campus/Building 215, Level 2, Bundoora West Campus

Notice of Approval

Date: 02 July 2019

Project number: 39-19/22191

Project title: Social cognitions in bullying

Risk classification: Low risk

Chief investigator: Dr Wendell Cockshaw

Status: Approved

Approval period: From: 02/07/2019 To: 16/11/2020

The following documents have been reviewed and approved:

Title	Version	Date
Risk Assessment and Application Form	2	1 July 2019
Participant Information Sheet and Consent Form	3	1 July 2019
Recruitment Material	1	28 May 2019
Research Instruments	4	1 July 2019

The above application has been approved by the RMIT University CHEAN as it meets the requirements of the *National Statement on Ethical Conduct in Human Research* (NHMRC, 2007).

Terms of approval:

- 1. Responsibilities of chief investigator**
 It is the responsibility of the above chief investigator to ensure that all other investigators and staff on a project are aware of the terms of approval and to ensure that the project is conducted as approved by CHEAN. Approval is valid only whilst the chief investigator holds a position at RMIT University.
- 2. Amendments**
 Approval must be sought from CHEAN to amend any aspect of a project. To apply for an amendment, use the request for amendment form, which is available on the HREC website and submitted to the CHEAN secretary. Amendments must not be implemented without first gaining approval from CHEAN.
- 3. Adverse events**



You should notify the CHEAN immediately (within 24 hours) of any serious or unanticipated adverse effects of their research on participants, and unforeseen events that might affect the ethical acceptability of the project.

4. Annual reports

Continued approval of this project is dependent on the submission of an annual report. Annual reports must be submitted by the anniversary of approval of the project for each full year of the project. If the project is of less than 12 months duration, then a final report only is required.

5. Final report

A final report must be provided within six months of the end of the project. CHEAN must be notified if the project is discontinued before the expected date of completion.

6. Monitoring

Projects may be subject to an audit or any other form of monitoring by the CHEAN at any time.

7. Retention and storage of data

The investigator is responsible for the storage and retention of original data according to the requirements of the *Australian Code for the Responsible Conduct of Research (R22)* and relevant RMIT policies.

8. Special conditions of approval

Nil.

In any future correspondence please quote the project number and project title above.

Yours faithfully,

Associate Professor Barbara Polus
Chair, Science Engineering & Health
College Human Ethics Advisory Network

Cc: Student Investigator/s:	Mr Ben Younan
Other Investigator/s:	Dr Sophie Xenos
	Dr Chris Powell
	Dr Lauren Salling

Appendix E: Study 3 Overview



Participant Information Sheet/Consent Form

Title	Social cognitions in bullying
Chief Investigator/Senior Supervisor	Dr Wendell Cockshaw
Co-Investigators/ Supervisors	Dr Sophia Xenos Dr Chris Powell Dr Lauren Saling
Principal Research Student(s)	Ben Younan

What does my participation involve?

Dear Participant, you are invited to participate in a PhD research project being conducted by researchers at RMIT University. Please read this sheet carefully and be confident that you understand its contents before deciding whether to participate. If you have any questions about the project, please email the chief investigator at wendell.cockshaw@mit.edu.au.

1 Introduction

You are invited to take part in this research project investigating the role of thoughts and feelings in social situations where bullying might occur.

This Participant Information Sheet tells you about the research project. It explains the processes involved in taking part. Knowing what is involved will help you decide if you want to take part in the research.

Please read this information carefully. Ask questions about anything that you don't understand or want to know more about by emailing wendell.cockshaw@mit.edu.au. Before deciding whether or not to take part, you might want to talk about it with a relative or friend.

Participation in this research is voluntary. If you don't wish to take part, you don't have to.

If you decide you want to take part in the research project, you will be asked to click at the bottom of the page to continue to the questionnaire. By clicking, you are acknowledging that you:

- Understand what you have read
- Consent to take part in the research project

2 What is the purpose of this research?

Research indicates that in social situations such as school or work people can play a range of roles, all of which shape group interactions. For this reason, if bullying occurs there are probably several processes occurring beyond the event itself. We are investigating what people may think or feel across a range of roles in group situations where there may be bullying.

In the long run this might help to improve the 'organizational climate' leading to greater wellbeing.

The findings of this study will be reported (in summary format) in the PhD dissertation of Ben Younan.

3 What does participation in this research involve?

You will be asked to complete an anonymous online survey. This includes a series of demographic questions, (including age, gender and employment status) and a series of questions about your thoughts and feelings related to a past bullying incident. This might be an incident in which you were not directly involved. No identifying information will be collected.

This task can be completed on any electronic device (ie. Laptop, smartphone, tablet), and will take approximately 20 minutes.

4 Do I have to take part in this research project?

Participation in any research project is voluntary. If you do not wish to take part, you do not have to.

Submitting your completed questionnaire is an indication of your consent to participate in the study. You can withdraw your responses any time before you have submitted the questionnaire. Once you have submitted it, your responses cannot be withdrawn because they are non-identifiable and therefore we will not be able to tell which one is yours.

Your decision whether to take part or not to take part, or to take part and then withdraw, will not affect your relationship with the researchers or with RMIT University.

5 What are the possible benefits of taking part?

You might not receive any direct benefits, however you will be contributing to knowledge about factors which might reduce the number or severity of bullying incidents in social situations such as workplaces and educational institutions.

6 What are the risks and disadvantages of taking part?

You may find some of the questions in the survey to be upsetting because they ask about your thoughts and feelings associated with a bullying incident. If at any time you decide you do not wish to complete the survey, you can withdraw immediately by closing your browser window. Only data from participants who complete and submit the survey will be analysed. If you become upset or distressed as a result of your participation in the research project, the following resources may be of assistance.

Within Australia:

- [SANE Australia](#) (people living with a mental illness) – call 1800 18 7263.
- [beyondblue](#) (anyone feeling depressed or anxious) – call 1300 22 4636 or chat online.
- [Black Dog Institute](#) (people affected by mood disorders) – online help.
- [Lifeline](#) (anyone having a personal crisis) – call 13 11 14 or chat online.

A list of international helplines is available at:

<https://www.cybersmile.org/advice-help/category/who-to-call>

Online surveys

This project will use an external site to create, collect and analyse data collected in a survey format. The site we are using is Qualtrics. If you agree to participate in this survey, the responses you provide will be stored on their host server. No personal information will be collected in the survey so none will be stored as data. Once we have completed our data collection and analysis, we will import the data to the RMIT server. The data on the host server will then be deleted and expunged. The data may be stored in perpetuity in a data repository associated with any publications arising from this research.

7 What if I withdraw from this research project?

You may withdraw from the project at any time before submitting your final survey responses. Upon completion of the survey, you will be asked again if you still wish to participate. Answering 'yes' to this question submits your survey results. Once your results have been submitted, you will be unable to withdraw from the study, as all data is unidentifiable meaning the researchers will not know which responses are yours.

8 What happens when the research project ends?

If you wish to be provided with a summary of the research findings once the project has been completed, please email wendell.cockshaw@rmit.edu.au.

How is the research project being conducted?

9 What will happen to information about me?

If you consent to participating in this study, the research team will analyse your data in combination with data from all other study participants. Any information you provide is confidential and non-identifiable, meaning it cannot be linked back to you. You will have a further opportunity to decide whether you submit your data, once you have completed the survey. Data will be stored in an encrypted format on secure RMIT servers. In the event of a publication based on this study, anonymous data may be stored in a data repository. Anonymous data will be retained in this secure format for future research projects.

Summary findings of this research project will be published in the PhD thesis of Ben Younan. It is also possible that this study could form the basis of publications in peer-reviewed scientific journals. In any publication, information will be presented in such a way that individuals cannot be identified.

10 Who is organising and funding the research?

This research project is being conducted by Dr Wendell Cockshaw, Dr Sophia Xenos, Dr Chris Powell, Dr Lauren Saling and Ben Younan. There is no external funding.

11 Who has reviewed the research project?

All research in Australia involving humans is reviewed by an independent group of people called a Human Research Ethics Committee (HREC). This research project has been approved by the RMIT University HREC.

This project will be carried out according to the *National Statement on Ethical Conduct in Human Research* (2007). This statement has been developed to protect the interests of people who agree to participate in human research studies.

12 Further information and who to contact

If you want any further information concerning this project, please contact Dr Wendell Cockshaw.

Research contact person

Name	Dr Wendell Cockshaw
Position	Chief investigator / Senior supervisor
Telephone	(03) 99257067
Email	wendell.cockshaw@rmit.edu.au

13 Complaints

Should you have any concerns or questions about this research project, which you do not wish to discuss with the researchers listed in this document, then you may contact:

Reviewing HREC name	RMIT University
HREC Secretary	Peter Burke
Telephone	03 9925 2251
Email	human.ethics@rmit.edu.au
Mailing address	Research Ethics Co-ordinator Research Integrity Governance and Systems RMIT University GPO Box 2476 MELBOURNE VIC 3001

Consent Form (implemented electronically)

Title	Social cognitions in bullying
Chief Investigator/Senior Supervisor	Dr Wendell Cockshaw
Research Student(s)	Ben Younan

Acknowledgement by Participant

By clicking continue, you agree to the following:

- I have read and understood the Participant Information Sheet.
- I understand the purposes, procedures and risks of the research described in the project.
- I have had an opportunity to ask questions and I am satisfied with the answers I have received (questions can be directed to wendell.cockshaw@rmit.edu.au).
- I freely agree to participate in this research project as described and understand that I am free to withdraw at any time during the project without affecting my relationship with RMIT.
- I am over 18 years old and am proficient in reading and understanding English.