

*Investigating the
Developing Relationship
between Gender and
Prosocial Behaviour*

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Declaration of Authorship

I, Benjamin A. Hine, hereby declare that this work was carried out in accordance with the Regulations of the University of London. I declare that this submission is my own work, and to the best of my knowledge does not represent the work of others, published or unpublished, except where duly acknowledged in the text. No part of this thesis has been submitted for a higher degree at another university or institution.

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Abstract

This thesis reports a programme of research which explored the gender-typing of prosocial behaviour by children and adolescents aged six- to eighteen-years old. In Study 1, children rated whether they believed girls or boys were more likely to perform prosocial behaviour. Results showed that across all ages, girls were thought of as more likely to perform prosocial actions, and this effect strengthened in adolescence. These results suggest that we can view prosocial behaviour as female-typed. Study 2 explored how varying the gender of the performer of prosocial behaviour might affect moral judgements of these actions. Results showed that at 12-13 years, participants judged prosocial behaviour by boys as 'less good' than at other ages. At this age, boys may be judged less positively due to the social knowledge about prosocial behaviour being female-typed. Studies 3 and 4 explored how the gender-typing of prosocial behaviour may change across adolescence, using a mixture of quantitative and qualitative methods. Both results from a masculinity-femininity questionnaire and focus group discussions revealed that, from 12-13 years onwards, prosocial behaviours could be female- or male-typed. Furthermore, results revealed that behaviours were classified as such based on how they corresponded to broader gender role characteristics. Finally, Study 5 investigated how adolescents' gender beliefs about prosocial behaviour predicted their reports of performing those actions, with results showing that beliefs were indeed strong and accurate predictors of reports. It is concluded that prosocial behaviour is subject to categorisation by gender, and is related to gender throughout development. A summary of findings in Chapter 8 outlines this changing relationship, and implications for this area of research are discussed.

Dissemination of Findings

Publications

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Chapter 1: Introduction

“Woman is more compassionate than man and has a greater propensity for tears...But the male...is more disposed to give assistance in danger, and is more courageous than the female.”

– Aristotle (384-322 BC)

1.1 Why Study How Gender Relates to Prosocial Behaviour?

The nurture and encouragement of a kind and prosocial child is often at the forefront of the minds of many parents; and the continuing development and maintenance of this behaviour is crucial for the effective functioning of society. The development of an engaged and actively prosocial child is to some extent pre-programmed, with a biological foundation. However, possibly much more important are the social influences on prosocial behaviour, such as the instruction from parents and teachers, and the reinforcement and engagement from peers. This aids the child, ‘actively engaged’ with the environment, to develop cognitively and learn the rules that guide good actions. Prosocial behaviour is a moral action and is therefore governed by moral rules concerning right and wrong (Smetana, 2006; Turiel, 1998). However, as gender is such a pervasive concept in our society, the moral rules learned about prosocial behaviour may be subject to social influence – namely knowledge about gender and gender-appropriate behaviour. Consequently, boys and girls may act differently in terms of their prosocial behaviour, based on the gendered knowledge they have about those actions. It is important to investigate how salient this information about gender and prosocial behaviour is to children, as this may inhibit and change the prosocial actions of boys and girls differentially. Limiting the range of positive social behaviour of boys and girls may damage societal functioning.

Empirical studies have shown that girls are consistently observed and judged as more prosocial than boys (Eisenberg & Fabes, 1998; Eisenberg, Fabes, & Spinrad, 2007). However, it is unclear whether these results are artifactual and a product of study design, or are actual differences in behaviour. Furthermore, there is a widely held stereotype that girls are more prosocial than boys (Eisenberg et al., 2007; Eisenberg & Mussen, 1989) and it is currently unclear what role this ‘prosocial gender stereotype’ might have in influencing the behaviour of boys and girls, as well as influencing prosocial behaviour research itself. A number of possibilities exist. The prosocial gender stereotype could influence the performance of prosocial behaviour by boys and girls, and the results from studies could be representative of ‘real’ differences. Alternatively, boys and girls could perform the same amounts of prosocial behaviour, but the prosocial gender stereotype could influence how studies are designed, conducted and responded to. This may skew results, showing that girls are ‘more’ prosocial. Finally, it could be a combination of both these factors, with the stereotype influencing behaviour, and consequent behaviour informing the stereotype.

Little research thus far has specifically focussed on empirically investigating the prosocial gender stereotype, and whether children and adults *believe* that one gender is more prosocial than the other. This is an important question if we are to understand how social norms about gender might affect our view of boys’ and girls’ prosocial behaviour. In recent years researchers have begun to question whether gender differences in prosocial behaviour may be more about the quality and type of prosocial behaviours performed by boys and girls, rather than the quantity (Dovidio, Piliavin, Schroeder, & Penner, 2006; Eisenberg et al., 2007) – an idea exemplified by the quote at the beginning of this chapter. It is therefore also important to investigate how gendered knowledge may influence the **nature** of boys’ and girls’ prosocial behaviour, not just the **quantity**. This thesis therefore focusses wholly on how children and adolescents *judge* prosocial behaviour, in terms of gender, and who they *believe* is more likely to act prosocially. In this sense, this thesis investigates the beliefs that are held about

gender and prosocial behaviour in order to provide insight into how these beliefs, and the judgements made based on them, may affect behaviour.

1.2 Definition of Terms

It is important to clarify what is meant when discussing prosocial behaviour in the following chapters. This thesis takes the definition from Eisenberg, Fabes & Spinrad (2007) that prosocial behaviour refers to “voluntary behaviour intended to benefit another” (Eisenberg, Fabes & Spinrad, p.646). This is different to altruistic acts, defined as “voluntary actions intended to benefit another that are intrinsically motivated – that is, acts motivated by internal motives such as concern and sympathy for others, or by values and self-rewards rather than personal gain” (Eisenberg & Mussen, 1989, p.3). The distinction with regards to motivation is, for the purposes of this thesis, paradoxically both important and irrelevant. It is important to distinguish that by using the term ‘prosocial behaviour’ this thesis refers to positive acts that are performed for a range of motivations, some self-serving and some intrinsic. However, differences in motivation are not specifically investigated in this thesis, as the focus was on the gendered knowledge that children hold, and how they might put this into practice, rather than why they do so.

Secondly, it is important to clarify the issue of using the terms sex vs. gender. In this chapter, and those following, the term gender is used throughout, with sex being used rarely. Typically researchers use the term ‘sex’ when simply referring to differences between males and females. Conversely, the term gender is typically used when discussing the concepts that surround differences in sex, and sets of characteristics that help to distinguish between males and females. In this thesis however, since the gender characteristics associated with boys and girls are so intertwined with sex in terms of prosocial behaviour, gender is used throughout. Furthermore, sex is also used when referring to concepts from specific theories that use the term ‘sex’ – such as ‘other-sex schema’ in gender

schema theory. Some further concept distinctions that need outlining concern gender. Firstly, gender stereotypes are defined as “widely held beliefs about characteristics deemed appropriate for males and females” (Berk, 2007, p.520) and gender roles are defined as “a reflection of these stereotypes in everyday behaviour” (Berk, 2007, p.520). Gender identity is thought of as “the private face of gender” (Berk, 2007, p.520), and can be described as how individuals view themselves in terms of masculinity and femininity. Finally gender-typing is “a broadly applied term which refers to any association of objects, activities, roles, or traits with biological sex in ways that conform to cultural stereotypes of gender” (Berk, 2007, p.520). All these terms, whilst distinct, experience overlap in terms of influence (for example gender stereotypes influencing gender roles) but are unique and should be viewed as such.

Finally, clarification of terms regarding age may be useful when reading this thesis. Many studies that are mentioned throughout this work, and indeed the empirical studies conducted therein, have specific details regarding the ages used. These age ranges are also accompanied by exact definitions, and are clearly presented. However, throughout the thesis the terms *childhood* and *adolescence* are also used regularly without specific clarification. In these cases, unless stated otherwise, ‘childhood’ refers to children from age 4 to 11 years (i.e., from the period after toddlerhood into preadolescence). ‘Adolescence’ refers to persons aged from age 12 to 18 years (i.e., from the period after preadolescence until the beginning of adulthood). These definitions are based on those used in numerous child development texts (for example see Berk, 2012) and from the classifications used in prosocial behaviour research (see Fabes and Eisenberg, 1998). The separation of childhood and adolescence as between the ages of 11 and 12 also serves to highlight a key point of change in the relationship between gender and prosocial behaviour.

1.3 Structure of the Thesis

Chapter 2 begins this thesis with a review of literature relevant to the present research. The review begins by outlining research on the development of prosocial behaviour across childhood, adolescence, and early adulthood. This includes describing: Hoffman's theory of prosocial development (Hoffman, 1982, 2000), the relation of empathy to prosocial behaviour, sociocognitive development, and the development of prosocial moral reasoning. This is followed by a review of empirical studies of prosocial behaviour in childhood through early adulthood. This is to show the general development of prosocial behaviour, outside the context of gender. The second section of the literature review explores research on gender differences in prosocial behaviour, namely the meta-analysis by Eisenberg and Fabes (1998). The main conclusion from the review of these studies is that girls are consistently observed to be, and judged as, more prosocial than boys. Recent challenges to findings that girls are more prosocial than boys are then explored, as well as how methodological practices in this area could have contributed to past results. The third and perhaps most important section of the literature review investigates possible explanations for gender differences in prosocial behaviour. Gender differences in empathy and prosocial moral reasoning are shown to provide limited explanations, and are influenced (as areas of research) by gender-typing and gender stereotypes. Gender-typing, and its influence on differences between the prosocial behaviour of boys and girls, is then explored as a prelude to the empirical questions asked in this thesis. This includes a comprehensive examination of the development of gender-typing, as well as different approaches to why and how this process occurs. These include biological explanations; evolutionary approaches – such as social role theory (Eagly, 1987); the socialisation of gender – by parents, teachers and peers; and cognitive approaches – such as gender schema theory (Martin & Halverson, 1981). These areas are reviewed with a specific focus on how each approach could explain gender differences in prosocial behaviour. The review ends with a detailed

statement of the aims and intent of the present work, as well as the key research questions.

Chapter 3 is a review of methodological approaches used in the area of prosocial behaviour research. It is divided into two parts. The first section reviews the current research practices in the area and how these may influence findings in studies examining gender differences. Firstly, methods of measurements are compared, assessing the merits of observation vs. report vs. judgement studies. Secondly, other considerations such as the behaviours chosen and age of participants are explored. The second section reviews the methods chosen in this thesis, in order to justify these decisions, as well as to highlight where these methods improved upon previous research practice where possible. This includes a review of general quantitative methods – the Likert scale, behaviours and ages selected, and the use of self-reports – as well as a review of the qualitative approaches employed – thematic analysis.

Chapter 4 reports Study 1 which examined whether children and adolescents aged 6 to 18 years gender-type prosocial behaviour. The study employed gender likelihood questions and explored whether participants believed that boys or girls (as a gender group) were more likely to perform prosocial behaviour. They were able to choose who they thought were more likely to perform four prosocial behaviours: helping, sharing, comforting or giving. Results indicated that all participants gender-typed prosocial behaviour as feminine (i.e., rated prosocial behaviour as more likely of girls). Furthermore, the female-typing of prosocial behaviour increased in strength in early adolescence (13-15 years), and remained as such in late adolescence (16-18 years). Girls also female-typed prosocial behaviour to a greater extent than boys at all ages. The results from this chapter suggest that a prosocial gender stereotype does indeed exist (Eisenberg et al., 2007) as children and adolescents rate girls as more likely to act prosocially as a gender group. Furthermore, children and adolescents may categorise prosocial behaviour as a girl ‘thing to do’ in line with gender schema theory (Martin & Halverson, 1981).

Chapter 5 reports Study 2 which explored the moral judgements made about prosocial behaviour by children and adolescents aged between 6 and 15 years. As well as information about the prosocial behaviour being performed, the gender of the protagonist was varied. The study used hypothetical vignettes showing boys or girls either performing or failing to perform two prosocial behaviours – helping and sharing, and participants rated how ‘good’ or ‘bad’ they felt the actions in the vignettes to be. Results showed all participants rated prosocial behaviour positively (as good or very good), and failing to perform prosocial behaviour negatively (as bad or very bad), regardless of whether the behaviour was performed by a boy or a girl. However, at age 12-13 years, participants judged boys performing prosocial behaviour less positively (or less ‘good’), and boys failing to perform prosocial behaviour less negatively (or less ‘bad’), than at other ages. Judgements about girls’ behaviour remained similar across age groups. The results from this chapter suggest that, at age 12-13 years, adolescents may be using social-conventional knowledge about gender when making moral evaluations of prosocial behaviour. This is similar to results found on judgements about exclusion from groups based on gender and experience of an activity at this age (Killen & Stangor, 2001).

Chapter 6 reports Studies 3 and 4 which explored the gender-typing of prosocial behaviour in adolescence in greater depth. Study 3 employed principle components analysis to assess how correlations between prosocial behaviours were explained by adolescents’ ratings of these behaviours as masculine or feminine. Results showed that from 12-13 years, correlations between behaviours were explained by two components – feminine/neutral vs. masculine. Results therefore suggested that adolescents gender-type prosocial behaviours with greater complexity than in childhood, when presented with a wider variety of prosocial behaviours. Study 4 used focus groups to investigate how adolescents understand gender to relate to prosocial behaviour. Thematic analysis revealed a number of distinct themes, most notably that some prosocial behaviours were gender-typed as feminine and some as masculine. In addition, prosocial behaviours appeared to

be gender-typed based on how the features of those behaviours relate to broader gender role characteristics. Finally, themes about how judgement from peers and context affect the likelihood of prosocial behaviour were also found. Specifically, adolescents discussed how they would avoid performing behaviours that were gender atypical due to the negative judgement they would receive from peers. They also felt unable to perform gender atypical prosocial behaviours in public situations. This suggests that, as children move into adolescence, the gender-typing of prosocial behaviours becomes more complex as an increasing amount of distinct prosocial behaviours are acknowledged and utilised.

Chapter 7 reports Study 5 which used participants' ratings of how much they believed their own gender should perform gendered prosocial behaviours to predict their reports of those same gendered behaviours. Felt pressure – the pressure adolescents felt to not be like the other gender by peers, parents and self – was also used to predict reports of behaviour (Egan & Perry, 2001). Results showed that adolescents' gender typicality beliefs strongly predicted their reports of gendered prosocial behaviour. Specifically, the more adolescents thought their gender group should perform gendered prosocial behaviours, the more they reported doing so. Felt pressure from peers significantly predicted adolescents' reports but only for feminine behaviours. In other words, if adolescents felt more pressure from peers they reported more feminine prosocial behaviour. This study principally highlighted that adolescents' beliefs about how their gender group should perform are strongly influential in their own performance of prosocial behaviour.

Finally, Chapter 8 presents a general discussion of the findings of the five studies; summarises the empirical contribution of the programme of work and its theoretical implications; and highlights important avenues for further research. It is argued that there is now clear evidence for the existence of a prosocial gender stereotype, and that the way gender relates to prosocial behaviour changes across childhood and adolescence. As such, a summary of these changes is also outlined. The messages from this summary have serious implications for the interpretation

of existing studies and for how future research on prosocial behaviour should be conducted. It is also argued that the gender-typing of prosocial behaviour may be limiting, particularly for adolescents. Therefore new and innovative interventions may be needed in order to minimise the importance of gender in the performance of prosocial behaviour, to encourage positive interaction across childhood and adolescence.

Chapter 2: Literature Review

The key issue emphasised in Chapter 1 was that, presently, it is unclear whether the prosocial gender stereotype – that girls are more prosocial than boys – is grounded in actual behavioural differences in children and adolescents. This chapter presents literature that is relevant to this thesis and to exploring this issue. It begins in section 2.1 by outlining the development of prosocial behaviour across childhood, adolescence and early adulthood, without considering gender, as well as theories that explain changes in prosocial behaviour across development. Then, section 2.2 presents literature investigating gender differences in prosocial behaviour and the methodological issues in this area that complicate interpretation of these studies. This section also outlines how these methodological considerations have prompted researchers to increasingly question the validity of findings that girls are more prosocial than boys. Finally, section 2.3 looks at possible explanations for gender differences in prosocial behaviour, including gender differences in empathy, prosocial moral reasoning, and gender-typing. An argument is made that gender-typing provides the most convincing explanation for gender differences in prosocial behaviour. Section 2.4 describes the aims of this thesis and the studies therein.

It is worth stating at this point that the vast majority of this chapter focusses on prosocial behaviour, as opposed to judgements about behaviour which provides the focus of the empirical chapters in this thesis. There are two reasons for this. Firstly, as later outlined in Chapter 3, there is a surprising lack of research on how children, adolescents and adults understand gender to relate to prosocial behaviour. There is therefore little research to review in this respect. Secondly, whilst the focus of the empirical chapters in this thesis are the judgements made about gender and prosocial behaviour, the studies were conducted in an effort to explain differences in behaviour. Therefore, this chapter focusses on describing the results that the studies in this thesis are attempting to explain. It is also worth

noting that this chapter, and this thesis, focusses largely on research conducted in Western industrialised nations. The conclusions and assumptions drawn therefore are to some extent culturally limited, and should be viewed with this in mind.

2.1 The Development of Prosocial Behaviour across Childhood, Adolescence, and Early Adulthood

As highlighted by the first 3 stages of Hoffman's model (see section 2.1.1) much 'prosocial' responding by infants is rudimentary, uncontrolled, and more emotionally driven. As such, research in children less than one year old often blurs the line between prosocial behaviour and involuntary, empathic responding. As children get older, and even in adults, empathy and emotional responding continues to be important. Indeed, Haidt (2001) would argue that emotional reactions, in the form of intuition, play a large role in prosocial behaviour throughout development due to the moral nature of these behaviours. However, there is a key distinction to be made in terms of control. Whilst infants respond empathically, they often do so with little regulation and with a focus on themselves (for example, they fail to fully distinguish between their own and others distress). In contrast adults may be emotionally driven in terms of prosocial behaviour, but are much more able to control their emotional responding and to do so 'correctly'. Therefore, this section briefly describes research on empathic responding in new-borns and infants before giving greater attention to studies on prosocial behaviour in childhood and adolescence. This section will explore the development of prosocial behaviour as a general concept and group of behaviours, as well as outlining specific behavioural trends (such as changes in helping or sharing). Largely, the description of individual development trends for different behaviours should give some idea of the overall development of prosocial action across childhood and adolescence.

There is evidence that newborn infants exhibit global empathy as displayed by their reactive crying in response to hearing another infant cry (Sagi

& Hoffman, 1976). There is also suggestion that infants are biologically predisposed to experience a rudimentary form of empathy as they exhibit more distress at other's crying than their own (Dondi, Simion, & Caltran, 1999). Around 6 months of age, infants will sometimes cry in response to another's cry, but will also sometimes ignore it or merely orient themselves toward the crying child (Hay, Nash, & Pedersen, 1981). Nine-month-old infants display negative emotional expressions in response to distress, and sometimes avert their gaze away from others in distress (Termine & Izard, 1988). These studies show that, in the first year of life, infants are clearly emotionally responsive to distress, but that this rarely results in meaningful action. This could be because infants at this age do not possess the sociocognitive or physical capabilities (or other-oriented motivation) to respond with prosocial action.

From around 10 months however children begin to engage in a range of prosocial behaviour, such as helping with housework, caring for siblings, and comforting others in distress (Hastings, Utendale, & Sullivan, 2007). Between 12 and 18 months of age, infants clearly react to other's negative emotions and distress with concerned attention and prosocial behaviour, including positive contact and verbal reassurance (Zahn-Waxler, Robinson, & Emde, 1992). This demonstrates the beginning of a transition from uncontrolled to controlled prosocial responding. From 14 months, children demonstrate other forms of prosocial behaviour such as helping with a task, and sharing with others (Warneken, Hare, Melis, Hanus, & Tomasello, 2007; Warneken & Tomasello, 2006). The work by Warneken and colleagues shows that infants were quite ready to help others achieve their goals in a variety of situations. The authors point out that this demonstrates that children are showing both an understanding of other's goals and needs, as well as a motivation to help. Many other studies have shown that children aged between one and two years old share objects (Hay, 1994) and willingly help other people (Easterbrooks & Lamb, 1979; Levitt, Weber, Clark, & McDonnell, 1985; Rheingold, 1982; Rheingold, Hay, & West, 1976). For example, Rheingold (1982) found that all children aged between 18 and 30

months not only helped their parents with household tasks, but did so spontaneously and extensively, as well as assisting adults who were complete strangers. In this study “their [the children’s] efforts were construed as prosocial not only because they contributed to the completion of the tasks but also because the children showed an awareness of themselves as actors working with others towards a common end” (Rheingold, 1982, p. 114).

Between 18-30 months, most children begin to experience pre-school, and prolonged social interaction with other children of the same age. With this comes a host of new, exciting and challenging experiences to which an infant must adapt. Scenarios such as conflict over resources and experiencing other children in distress (either physical or emotional) require a reaction, usually encouraged to be of a prosocial nature. Unsurprisingly, this developmental period has garnered much research attention with regards to prosocial behaviour, as this can be seen as a preliminary stage for interaction with peers. Bar-Tal, Raviv & Goldberg (1982) found that children aged 18 to 76 months performed a high level of helping acts, with the majority (65%) of children performing at least one helping act during the three ten-minute observation periods. Furthermore, there was an increase in real helping acts as opposed to imaginative play helping acts. This shows that children across this age have the ability to take experiences they have in play and put them into practice when confronted with a scenario that requires a prosocial resolution.

By age 24 months, most children will offer a specific prosocial response to another person who is in distress. This includes verbal advice (‘be careful’ or ‘don’t do that’), sharing, direct and indirect helping, distraction, and protection or defence (Lamb & Zakhireh, 1997). Not only do prosocial behaviours change in nature over infancy, they also increase in frequency between 14 and 36 months (Zahn-Waxler & Radke-Yarrow, 1982; Zahn-Waxler, Robinson, et al., 1992; Zahn-Waxler, Shiro, Robinson, Emde, & Schmitz, 2001). Children, even at a young age, are able to direct their attention and efforts towards another upon understanding that they are in need, and take action to respond to that need. These studies also demonstrate that, when they are able to physically do so, children are

willing to act in a prosocial way towards others to help achieve a goal as part of a shared process. Furthermore, children at this age show consistent, spontaneous and responsive prosocial behaviours to both familiar and unfamiliar others, which provide the basis of prosocial behaviour development upon entry into the primary school environment.

It is broadly accepted that prosocial behaviours continue to increase in frequency from age 4 years onwards until adulthood (Eisenberg & Fabes, 1998; Eisenberg et al., 2007; Eisenberg & Mussen, 1989; Fabes & Eisenberg, 1996). However, the strength of this conclusion is subject to the type of behaviour being assessed. Giving (e.g. to a charity or needy other) generally increases linearly with age (Radke-Yarrow, Zahn-Waxler, & Chapman, 1983; Underwood & Moore, 1982). Helping however has a more complex developmental trajectory, first increasing from ages 5 to 12, decreasing between 12 and 16, and then increasing again in late adolescence (Midlarsky & Hannah, 1985; Staub, 1970). For behaviours such as comforting, the literature is divided. Some studies find an increase in frequency across age (Bar-Tal et al., 1982; Berman, 1987) and some do not (Gottman & Pankhurst, 1980; Yarrow, Scott, & Waxler, 1973). Broadly, as a set of behaviours, prosocial actions increase across childhood and adolescence, however it is important to recognise that different prosocial behaviours have specific developmental patterns. At any rate, the disposition to act prosocially remains consistent from childhood and adolescence into adulthood (Eisenberg et al., 2002; Eisenberg et al., 1999). Eisenberg et al. (1999) suggest that the roots of prosocial responding lie firmly in the early stages of development (under 5 years of age), and that levels of prosocial behaviour at this time accurately predict responding in early adulthood.

As discussed in section 2.1.4, economic games can be used to investigate the development of more abstract conceptualisations of prosocial behaviour; such as fairness, distributive justice, reciprocity, equality, and trust. Due to the simplicity of economics games like the dictator game, similar methods can be used across age groups in order to assess development patterns. Studies using the

dictator game have thus far found few differences between how children in third, sixth, eighth, and eleventh grade distribute money both when acting as an individual or in groups of three (Gummerum, Keller, Takezawa, & Mata, 2008; Leman, Keller, Takezawa, & Gummerum, 2009; Takezawa, Gummerum, & Keller, 2006). These studies help to demonstrate that from middle childhood onwards, prosocial behaviours based on equal distribution and sharing are relatively stable across development.

This section examined empirical research on prosocial behaviour development across childhood through early adulthood, from which 4 main conclusions can be drawn. Firstly, that prosocial behaviours (as opposed to basic empathic responses) occur at a very young age and are undertaken willingly and spontaneously in children as young as 12 months. Secondly, that prosocial behaviours increase as children grow older, and that this increase continues into late adolescence and early adulthood. This does however depend on the behaviour studied. And finally, that the prosocial element of personality is relatively stable across the first 25 years of life. The next four sections explore how motivation for prosocial behaviour develops as a result of continuing empathic and socio-cognitive development, as well as changes in empathy and prosocial moral reasoning, that allow children to evaluate and respond to situations with progressive maturity.

2.1.1 Hoffman's Theory of the Development of Prosocial Behaviour

Hoffman (1982, 2000) proposed a four-level theoretical model that outlines the role of infants' and children's affect, cognitive sense of self-awareness, and self-other differentiation in the development of prosocial behaviour. Specifically, he described the developmental shift away from egoism and an orientation towards the self, in response to the distress of others, to empathic concern that results in other-oriented prosocial behaviour. In this sense,

Hoffman outlined a change in what motivates children to act prosocially, progressing from responding to their own distress to the distress of others.

In the first stage of Hoffman's model, newborns and infants display rudimentary empathic responses that manifest as '*global empathy*'. Hoffman argues that the infant cannot yet distinguish between the self and the other (at least with regard to emotional states) and experiences distress through a simple mode of empathy, such as mimicry or crying. Beginning around the first year of life, infants experience *egocentric empathic distress* and seek comfort for themselves in response to the distress of others. This second stage is still a relatively rudimentary response and the infant is likely to react to empathic and actual distress situations in a similar way. Early in the second year of life, toddlers begin to make helpful advances toward a victim of distress, and may intervene by hugging, giving physical assistance, or getting someone else to help (Zahn-Waxler & Radke-Yarrow, 1982). This third level is labelled the *quasi-egocentric empathic distress* stage. According to Hoffman (Hoffman, 2000), toddlers in this developmental period can differentiate between self and other, although they still have trouble distinguishing between their own and another's internal state. This is represented by the fact that toddlers will seek to comfort others, but usually do so by giving the other child something, or sharing something with them, that they themselves would find comforting (Hay, 1994).

The final stage of Hoffman's (Hoffman, 1982, 2000) model, the period of *veridical empathic distress*, marks the period in which children are increasingly aware of other people's feelings and are capable of understanding that they may differ from their own. Prosocial actions at this stage reflect an awareness of another person's specific needs (separated from their own), and children are much more accurate in their responses. As children continue to develop more sophisticated perspective-taking skills and the ability to think abstractly, skills such as feeling empathic concern for those who are not present begin to emerge. By mid to late childhood children can empathise with another person's more general condition or plight; and by adolescence, individuals are capable of

comprehending and responding to the plight of an entire group (for example, the impoverished or the politically oppressed). This brief overview of Hoffman's model highlights both change in children's motivation to perform prosocial behaviour (from self- to other-oriented motivations) as well as their response to this motivation (which typically becomes more varied with age). In addition we can see the importance of empathy in evoking motivation in children to respond to the distress of others.

2.1.2 Empathy and Prosocial Behaviour

Empathy is defined as 'an affective response that stems from the apprehension or comprehension of another's emotional state or condition and is similar to what the other person is feeling or would be expected to feel' (Eisenberg, 2000). Sympathy on the other hand is defined as 'an emotional response stemming from the apprehension or comprehension of another's emotional state or condition, which is not the same as what the other person is feeling (or is expected to feel) but consists of feelings of sorrow or concern for the other' (Eisenberg, 2000). These definitions are chosen as they incorporate both the affective and cognitive aspects of these abilities. A vast number of studies report that empathy, and incorporated concepts such as sympathy, are accurate predictors of prosocial behaviour (Batson et al., 1997; Denham, 1986; Eisenberg-Berg & Lennon, 1980; Eisenberg et al., 1989; Eisenberg, Fabes, Murphy, et al., 1996; Eisenberg, Fabes, et al., 1995; Eisenberg & Miller, 1987; Hoffman, 2008; Iannotti, 1985; Lennon & Eisenberg, 1987; Lennon, Eisenberg, & Carroll, 1986; Malti, Gummerum, Keller, & Buchmann, 2009; McMahon, Wernsman, & Parnes, 2006; Roberts & Strayer, 1996; Spinrad & Eisenberg, 2009; Stocks, Lishner, & Decker, 2009; Trobst, Collins, & Embree, 1994), with only a limited number finding no relationship (Underwood & Moore, 1982). Furthermore, with advancements in neuroimaging in recent years, links have been identified between specific neural activity relating to empathy and subsequent prosocial behaviour

(Hein & Singer, 2010; Masten et al., 2009; Rameson, Morelli, & Lieberman, 2011).

Amongst children, markers of empathy including their facial, behavioural, and physiological reactions to viewing others in need or distress, have been associated with situational (dependent on the context) and dispositional (universal performance, regardless of context) prosocial behaviour (Denham, Renwick-DeBardi, & Hewes, 1994; Fabes, Eisenberg, & Eisenbud, 1993; Holmgren, Eisenberg, & Fabes, 1998; Zahn-Waxler, Radke-Yarrow, Wagner, & Chapman, 1992; Zahn-Waxler & Robinson, 1995). In research with adults, it has been shown that sympathy may not only motivate prosocial/moral behaviours in specific scenarios (Batson et al., 1997), but may also cause long-term changes in an individual's concern for others (Batson, Turk, Shaw, & Klein, 1995).

The cognitive and emotional states of guilt and shame understandably form a relationship with empathy and moral behaviour. Both involve a sense of responsibility to others and conformity to moral standards, evoked when one fails to perform in this way (Tangney, Marschall, Rosenberg, Barlow, & Wagner, unpublished data, as cited in Eisenberg, 2000). Furthermore, both can arise from concerns about the effects one's behaviour has on others (Tangney, 1992). Guilt appears to be the more 'moral' emotion, focussing on the transgression rather than the self and appears to motivate restitution, confession, and apology (Tangney, 1998). Shame, however, often involves concerns about other's evaluations and is likely to arise from nonmoral situations and issues (Ferguson, Stegge, & Damhuis, 1991). Tangney (1991) found that guilt was positively associated with adult's self-reported, other-oriented empathic responsiveness, whereas shame showed the opposite relationship. However both states are strongly correlated in most studies and may present a dual-effect on prosocial behaviour motivation; whilst guilt results from the transgression itself, shame represents the associated judgements from others upon said violation.

The relationship between empathy and prosocial behaviour is clear and has received substantial empirical support. The studies in this section, as well as

Hoffman's model, suggest that empathic reactions to the distress of others provide the motivation to act in a prosocial manner. Accompanying these changes in motivation, the continuing development of children's cognitive processes and capabilities help further explain the development of prosocial behaviour.

2.1.3 Sociocognitive Development and Prosocial Behaviour

As children become better able to understand situations that require prosocial action, they tend to perform a wider variety, and increasing amounts, of prosocial behaviour. It is widely accepted that prosocial behaviours generally increase from age 4 onwards (Eisenberg et al., 2007; Eisenberg & Mussen, 1989; Fabes & Eisenberg, 1996). For many theorists, the key process behind this increase is continuing socio-cognitive development (Burlison, 1994).

Socio-cognitive development encompasses changes in many cognitive abilities which enable children to better perform in prosocial scenarios. For example, as attentional processes develop, children are better equipped to orient their attention and change from inward to outward focusing, transforming egoistic affect to other-oriented affect (Hoffman, 1982; Krebs & Van Hesteren, 1994). Furthermore, children continually develop and refine an understanding of the emotional states of others and are better able to detect and decode emotional cues (Barnett, Darcie, Holland, & Kobasigawa, 1982; Eisenberg, Murphy, & Shepard, 1997). Children also accumulate social experience, thus making subtle or ambiguous cues easier to detect (Pearl, 1985). This also allows for continuing opportunity for reinforcement on production of the correct response. Children also become better at distinguishing between real and apparent emotional states with age (Gosselin, Warren, & Diotte, 2002). This allows children to react more appropriately to situational demands, such as providing a prosocial response to signs of distress, or identifying the need for help in goal achievement. Children's abilities to evaluate situational factors and behavioural options also develop and become more complex with age. For example, the ability to evaluate the costs and

benefits of prosocial behaviour becomes more sophisticated (Black, Weinstein, & Tanur, 1980), with younger children weighing the costs in terms of themselves, and older children becoming more attuned to the benefits of prosocial behaviour that may not include immediate benefits for the self (Eisenberg, 1986; Lourenço, 1990, 1993).

Moreover, numerous researchers have suggested that the *quality* of children's motivation for prosocial action also changes with continued socio-cognitive development (Eisenberg, 1986; Erdley & Asher, 1999; Krebs & Van Hesteren, 1994). Bar-Tal, Raviv, and Lesier (1980) proposed that children's helping behaviour develops through six stages which differ in the quality of motivation. The first three stages involve prosocial behaviours that are compliant and are evaluated in terms of materialistic rewards. The next two stages represent a shift towards compliance with social demands and generalised reciprocity, with the final stage representing actions undertaken for more "altruistic" motivations, oriented toward the needs of others. Bar-Tal and colleagues have found some support for their model, with older children citing reasons less to do with compliance and the rewards and costs of the situation, and more to do with intrinsic motives for helping (Bar-Tal et al., 1982; Bar-Tal et al., 1980; Eisenberg, 1986; Raviv, Bar-Tal, & Lewis-Levin, 1980). Furthermore, researchers have generally found that there is a decrease in hedonistic, self-oriented motives for prosocial behaviour, and an increase in other-oriented, internalised and altruistic motives across age (Bar-Tal & Nissim, 1984; Bar-Tal et al., 1980; Eisenberg, 1986; Ugurel-Semin, 1952).

In summary, continuing sociocognitive development better enables children to evaluate the needs of others and to respond in a prosocial manner to those needs. Similarly to Hoffman's model and theories on socio-cognitive development, development of prosocial moral reasoning involves changes both in why and how children approach, and engage with prosocial scenarios.

2.1.4 The Development of Prosocial Moral Reasoning

A substantial amount of previous research has explored the development of moral reasoning from childhood through to adulthood (Kohlberg, 1969).

Prosocial moral reasoning is the process of making judgements about scenarios that invite prosocial action. Presenting participants with prosocial moral dilemmas and then recording their importance ratings of various reasoning types provides insight into the differing strategies and motives for the judgements made in these scenarios. Across development, children's prosocial moral reasoning becomes more complex and sophisticated as they progress from orientation towards the self, to orientation towards others, to internalising broad moral principles. Nancy Eisenberg and her colleagues (1979) proposed a model of the development of prosocial moral reasoning based initially on a large cross-sectional study, and then on a series of studies that formed an extensive longitudinal design from age 4 into early adulthood. To test the model a number of hypothetical dilemmas were devised; one such scenario is outlined below:

A poor farming village named Circleville had a harvest that was just enough to feed the villagers with no extra food left over. Just at that time a nearby town named Larksdale was flooded and all this town's food was ruined, so that they had nothing to eat. People in the flooded town of Larksdale asked the poor farmers of Circleville to give them some food. If the farmers did give the food to the people of Larksdale, they would go hungry after working so hard all summer for their crops. It would take too long to bring in food from other villages further away because the roads were bad and they had no airplanes. What should the poor farming village do?
(Eisenberg-Berg, 1979, p.129)

Children respond to dilemmas such as this first by deciding what the protagonist should do, followed by rating how important five separate reasons were when making this decision. These five reasons represent different stages of prosocial moral reasoning, and by analysing the importance of each reason at different ages, children can be placed at a certain stage. The levels of prosocial

moral reasoning proposed by Eisenberg are shown in Table 2.1 and, for comparison, Kohlberg's stages of moral development are shown in Table 2.2.

Eisenberg first began investigating age effects on prosocial moral judgements, and their relation to prosocial behaviour in 1979, in a cross sectional study using elementary and high school students (in 2nd, 4th, 6th, 9th, 11th and 12th grade: 7- to 8-years-old, 9- to 10-years-old, 11- to 12-years-old, 14- to 15-years-old, 16- to 17-years-old, and 17- to 18-years-old approx respectively). Participants were presented with moral dilemmas (akin to the example above) in which the effects of law, rules, and punishment are minimised or irrelevant. Participants were then asked how they would respond in this dilemma, as well as rating how important five reasons were in making their decision. Elementary school children's reasoning tended to be hedonistic, stereotyped, approval oriented, and often involved simple labelling of needs. In older age groups (in high school) these forms of reasoning decreased, and more sophisticated forms emerged. Furthermore, clear empathic considerations, as well as judgements reflecting internalised moral principles and values, increased in older children (Eisenberg-Berg, 1979).

In 1983, Eisenberg, Lennon, and Roth embarked upon a long term investigation of age differences in prosocial moral reasoning using a longitudinal design, testing the same cohort of participants over numerous studies. The first study used participants aged 4- to 5-years-old to test changes in reasoning over the transition from pre-school to elementary school. Over this period, hedonistic reasoning decreased and needs-oriented reasoning increased, with most other types of reasoning remaining in low usage (Eisenberg, Lennon, & Roth, 1983). This demonstrates that, upon entry into a more formalised school environment, reasoning concerned with self-oriented motives (hedonistic) decreases. Participants from Eisenberg et al.'s 1983 study were tested again at age 9- to 11-years-old, assessing age effects over a period of 7 years. Patterns observed in early childhood appeared to continue into middle childhood.

Table 2.1 The Stages of Prosocial Moral Reasoning

Source: Eisenberg, Lennon, & Roth, 1983

Level	Orientation	Description	Group
1	Hedonistic, self-focused	The individual is concerned with self-oriented consequences rather than moral considerations. Reasons for assisting or not assisting another include consideration of direct gain to self, future reciprocity, and concern for others who the individual needs and/or likes (due to the affectional tie)	Preschoolers and younger elementary school children
2	Needs of others	The individual expressed concern for the physical, material, and psychological needs of others even though the other's needs conflict with one's own needs. This concern is expressed in the simplest terms, without clear evidence of self-reflective role taking, verbal expressions of sympathy, or reference to internalised affect such as guilt	Preschoolers and elementary school children
3	Approval and interpersonal and/or stereotyped	Stereotyped images of good and bad persons and behaviours and/or considerations of others' approval and acceptance are used in justifying prosocial or nonhelping behaviours	Elementary and high school students
4	a Empathic	The individual's judgements include evidence of sympathetic responding, self-reflective role taking, concern with the other's humanness, and/or guilt or positive affect related to the consequences of one's actions	Older elementary school and high school students
	b Transitional (empathic and internalised)	Justifications for helping or not helping involve internalised values, norms, duties, or responsibilities, or refer to the necessity of protecting the rights and dignity of other persons; these ideas, however, are not clearly stated	Minority of people high school age
5	Strongly internalised	Justifications for helping or not helping are based on internalised values, norms, or responsibilities, the desire to maintain individual and societal contractual obligations, and the belief in the dignity, rights, and equality of all individuals. Positive or negative affect related to the maintenance of self-respect for living up to one's own values and accepted norms also characterises this stage	Only a small minority of high school students and virtually no elementary school children

Table 2.2 Kohlberg's Stages of Moral Reasoning**Source: Kohlberg, 1969**

Level I Preconventional morality	
Stage 1	
Obedience and punishment orientation	To avoid punishment, the child defers to prestigious or powerful people, usually the parents. The morality of an act is defined by its physical consequences
Stage 2	
Naïve hedonistic and instrumental orientation	The child conforms to gain rewards. The child understands reciprocity and sharing, but this reciprocity is manipulative and self-serving
Level II Conventional morality: conventional rules and conformity	
Stage 3	
Good boy morality	The child's good behaviour is designed to maintain approval and good relations with others. Although the child is still basing judgements of right and wrong on others' responses, he is primarily concerned with their approval and disapproval. It is to maintain goodwill that he conforms to families' and friends' standards
Stage 4	
Authority and morality that maintain social order	The person blindly accepts social conventions and rules and believes that is society accepts these rules, they should be maintained to avoid censure. He now conforms not just to other individuals' standards but to social order
Level III Postconventional morality: self-accepted moral principles	
Stage 5	
Morality of contract, individual rights, and democratically accepted law	Morality is based on an agreement among individuals to conform to norms that appear necessary to maintain social order and the rights of others. However, because this is a social contract, it can be modified when people within a society rationally discuss alternatives
Stage 6	
Morality of individual principles and conscience	People conform both to standards and to internalised ideals. Their interest is to avoid self-condemnation rather than criticism by others. People base their decisions on abstract principles involving justice, compassion, and equality

Results showed that hedonistic reasoning continued to decline across this period, with needs-oriented reasoning continuing to increase (Eisenberg et al., 1987). Other types of reasoning (such as stereotypic reasoning/approval-oriented reasoning, sympathetic responding, etc.) increased in a linear fashion across this period but not to the degree that needs-oriented reasoning did. These results show that, as children progress through middle school, interaction with peers and teachers, combined with increasing cognitive development, allow more complex forms of prosocial moral reasoning to emerge.

Eisenberg, Miller, Shell, McNalley, and Shea (1991) extended this sample further to examine changes in adolescence, using participants aged approx. 13- to 14-years-old. As in the two previous studies (Eisenberg-Berg, 1979; Eisenberg et al., 1983), hedonistic reasoning continued to decline in use until adolescence, but then increased slightly (although this was primarily for boys). Needs-oriented reasoning, direct reciprocity reasoning, as well as stereotypic reasoning and approval-oriented reasoning increased until early adolescence and then declined. Several types of higher reasoning (positive affect, internalised law, norm or value orientation, generalised reciprocity, and equality of individuals) emerged in early adolescence as forms of reasoning used (Eisenberg et al., 1991). These results demonstrate that late childhood and early adolescence may represent a period of consolidation and completion for the foundation of prosocial moral reasoning. Most participants at this age will reach level 3/4 of Eisenberg et al.'s prosocial moral reasoning model (1983) in a similar fashion to how many reach stage 3/4 of Kohlberg's stages of moral development (Colby, Kohlberg, Gibbs, & Lieberman, 1983). This age represents a period of cognitive development when basic facets of cognitive function have been developed and consolidated (Piaget, 1953), with future development expanding upon this basic cognitive infrastructure.

In late adolescence and early adulthood, changes in prosocial moral reasoning continue (Eisenberg, Carlo, Murphy, & van Court, 1995). Hedonistic reasoning increases slightly, needs-oriented reasoning and stereotypic reasoning decline further in usage, and several modes of higher (and more complex)

reasoning continue to be more prevalent. The increase in hedonistic reasoning at this age is explained by the authors as relating to individual goal pursuit, as participants begin to think about attending university; other individuals will be entering a competitive work environment. A study by Eisenberg, Cumberland, Guthrie, Murphy, and Shepard (2005) tested the same cohort, now in early adulthood (25- to 26-years-old). In the transition from late adolescence to early adulthood, prosocial moral judgement composite scores tended to level off and stabilise as adults consolidate their reasoning strategies to form a more concrete method of reasoning (Eisenberg et al., 2005). These studies clearly show that as children get older, their ability to reason about prosocial scenarios becomes more complex. Older children also have a different orientation in their prosocial moral reasoning – towards others rather than the self.

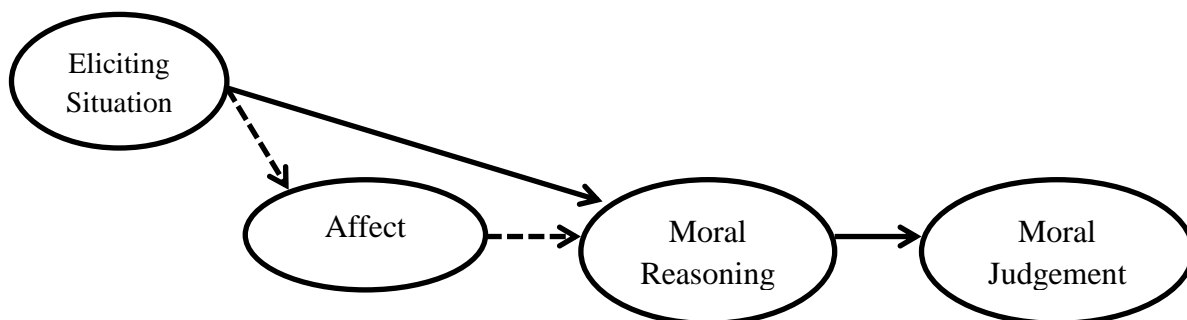
Many studies have suggested that prosocial moral reasoning is related to prosocial behaviour, but that the relationship depends on the type of behaviour, as well as being subject to age effects (Eisenberg-Berg, 1979; Eisenberg et al., 1991; Eisenberg et al., 1987). For example, in preschool and middle childhood some researchers have found a positive relationship between higher prosocial moral reasoning and increased prosocial behaviours (Miller, Eisenberg, Fabes, & Shell, 1996). Others have found more specific reasoning-behaviour relationships. For example, in children, sharing was negatively related to hedonistic reasoning, whereas helping was found to be unrelated to reasoning strategies as this behaviour is viewed as less costly (Carlo, Koller, Eisenberg, Da Silva, & Frohlich, 1996; Eisenberg-Berg & Hand, 1979; Eisenberg et al., 1987). In adolescence these reasoning-behaviour relationships persist. Helping is negatively related to hedonistic reasoning, but positively related to overall reasoning (Eisenberg et al., 1991). In late adolescence this association becomes weaker and increasingly unclear, with behaviours that are more costly (donating) correlated positively with overall reasoning score, and with the relationship changing depending on the type of measure, such as self-report, mother report etc. (Eisenberg, Carlo, et al., 1995).

In recent years, economic games have been increasingly used to investigate the relation of children and adolescents' moral reasoning to their prosocial behaviour (Gummerum, Hanoch, & Keller, 2008). Economic games investigate the logic of interactive decisions where two or more decision makers are involved. The social situations examined using these games are distinct in two ways; they involve two or more decision makers (or players) and the outcome of the interaction depends on the choices of all players – where each outcome can be assigned a numerical payoff representing the preference of each player (Camerer, 2003; Colman, 1995, 2003; Kagel & Roth, 1995). In tasks like the dictator game, one player (the proposer or dictator) can unilaterally decide how to allocate (or not) resources between himself and another anonymous player. A positive offer to the responder can be seen as an indication of prosociality from the dictator (Camerer, 2003; Colman, 1995). Participants in these tasks are experiencing prosocial moral dilemmas (Eisenberg, 1986, 2000), namely the choice between his or her selfish desires to keep as many resources as possible, and the needs of the other player (similar to the dilemma example given above). In this sense, it would be expected that children who utilise more selfish, hedonistic, and self-oriented reasoning, would share less in the dictator task than those who utilise more internalised, self-reflective, empathic, and other-oriented reasoning. Studies thus far have found little relation between prosocial moral reasoning and individual allocations made (Gummerum, Keller, et al., 2008; Takezawa et al., 2006). This suggests that, in studies that investigate prosocial behaviour characterised by fairness and distributive justice, prosocial reasoning plays little role in these behaviours.

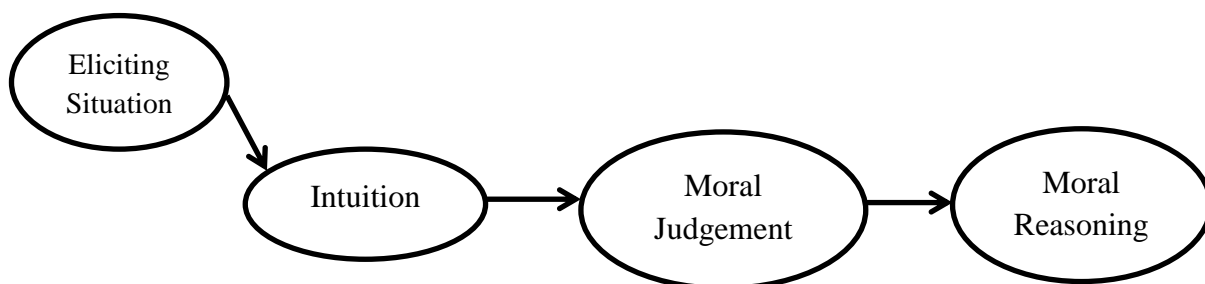
The relationship between prosocial moral reasoning and prosocial behaviour is further complicated by the debate over whether reasoning precedes or follows judgement and action. Traditional, rationalist models of moral judgement (Kohlberg, 1969; Piaget, 1965) posit that a situation is evaluated first through moral reasoning before being morally judged and before moral action is taken (see model 1 in figure 2.1). The role of affect, and moral emotions, is minimized, and

Figure 2.1 The Rationalist and Intuitionist Models of Moral Judgement

Model 1 – Rationalist Approach to Moral Judgement



Model 2 – Intuitionist Approach to Moral Judgement



only sometimes mediates the relationship between a situation and moral reasoning. With regards to prosocial behaviour, a situation (like the example used above from the work of Eisenberg) would cause one to reason about the scenario, in order to decide how to judge which course of action is appropriate, as well as the ‘rightness’ or ‘wrongness’ of said action. In addition to this judgement, one would also be deciding on whether to indeed act or not. Some situations may elicit more of an emotional reaction than others, but this would affect one’s reasoning (and in turn inform judgements), and would not directly affect moral judgement or action. Recently however, social intuitionist models of moral judgements (Haidt, 2001) have a) emphasised the role of emotions to a greater extent – in the form of intuition; and b) posited that moral judgement and action precede moral reasoning (see model 2 in figure 2.1). This is an important consideration with regards to

prosocial behaviour, as intuition may play an key role in influencing performance of these actions. This is because prosocial behaviour is guided by moral rules about right and wrong, and is more likely to be evaluated quickly and with little conscious awareness of processing that led to that evaluation. Therefore, instead of experiencing a prosocial scenario, reasoning about that situation, and then morally judging actions taken or acting oneself; one may experience a prosocial scenario, quickly judge that situation according to moral rules (and/or act in that manner), and then justify that decision through moral reasoning. As such, studies like those by Eisenberg and colleagues that measure prosocial moral reasoning do not clearly show whether participants use differing reasoning strategies across development to *inform* their decisions about prosocial behaviour, or whether they *justify* their decisions using contrasting forms of reasoning post-hoc. If this is the case, we may expect children and adolescents to act similarly across development, but to justify these decisions differently. For example, in the prosocial dilemmas used by Eisenberg (1986, 2000), children and adolescents may always say they would act in a similar fashion, but differentially justify these decisions – allocating varying levels of importance to each form of reasoning.

Others argue that there is a place for moral reasoning to precede moral intuition, through previous experience influencing ones immediate appraisal of an issue and through control over which issues and scenarios are experienced (Pizarro & Bloom, 2003). Exactly which processes children and adolescents use in regards to evaluating prosocial behaviour is still unclear, and this issue continues to be of relevance later in this chapter in section 2.3.2. Whether prosocial moral reasoning precedes or follows prosocial action and judgement, there appears to be a relatively consistent relationship between the two. For the purposes of this thesis, a rationalist approach will be taken – that reasoning precedes moral judgement and action.

In summary, prosocial moral reasoning generally becomes more sophisticated with age. Furthermore, whilst the evidence is limited, certain forms of prosocial moral reasoning have been shown to predict prosocial behaviour.

This is made more complicated by the debate on the relationship of reasoning to judgement and action (Haidt, 2001, 2003; Pizarro & Bloom, 2003). Assuming that reasoning precedes judgement, developing prosocial moral reasoning most likely influences the way children approach prosocial scenarios, and with differing motivations. More broadly, the previous four sections have demonstrated how children progress from a self-focussed orientation when performing prosocial behaviours, to an other-focussed orientation, responding to the needs of others and developing more complex abilities to read and respond to the distress of others.

Section 2.1 has outlined changes in prosocial behaviour across development, as well as outlining theories that help explain these changes. The focus of this thesis is whether there are *gender differences* in prosocial behaviour, and what might cause these differences.

2.2 Are There Gender Differences in Prosocial Behaviour?

This section aims to examine literature investigating gender differences in prosocial behaviour. A wealth of research has identified gender differences in aggressive or antisocial behaviour from childhood through to adulthood (Björkqvist, 1994; Card, Stucky, Sawalani, & Little, 2008), and developmental patterns for boys and girls in this field are well established. Boys consistently show more antisocial behaviour overall, particularly direct/physical behaviour, whilst girls have been shown to perform more indirect/verbal behaviour. However many questions still remain with regards to whether gender differences in prosocial behaviour exist. Researchers have theorised that due to greater importance being continually placed on antisocial behaviour, and solving the social problems it elicits, more research is conducted on antisocial, compared to prosocial, behaviour in general – as well as investigating gender differences in these behaviours (Eisenberg et al., 2007). However, examining whether there are gender differences in prosocial behaviour is an important question, as knowing the causes or origins of these differences can tell us a good deal about the social or

biological origins of such behaviour, as well as helping to promote positive social relationships.

Gender is one of the most consistent correlates of prosocial behaviour (Hastings et al., 2007) and cross-cultural evidence has shown that girls help and give more than boys (Carlo, Roesch, Knight, & Koller, 2001; Russell, Hart, Robinson, & Olsen, 2003; Whiting & Whiting, 1973). Eisenberg and Fabes (1998) reported a seminal meta-analysis of gender differences in prosocial behaviour involving 259 studies yielding a total of 450 effect sizes. The mean un-weighted effect size was modest (.18) and favoured girls. Furthermore, studies continue to find gender differences in prosocial behaviour, again favouring girls (Bosacki, 2003; Caprara, Barbaranerlli, & Pastorelli, 2001), and peers are more likely to nominate girls as being prosocial (Keane & Calkins, 2004; Warden, Cheyne, Christie, Fitzpatrick, & Reid, 2003; Warden & MacKinnon, 2003; Wentzel, 2002; Wentzel, Filisetti, & Looney, 2007). Finally, studies using the dictator game have found that between 9- and 17-years-old, girls make higher individual offers than boys (Gummerum et al., 2008; Leman et al., 2009).

However, some studies using the dictator task – and other economic games such as the ultimatum game – have found no gender differences in individual offers (Takezawa et al., 2006). In addition, many earlier meta-reviews were much more cautious in their conclusions compared to Fabes and Eisenberg (Maccoby & Jacklin, 1974; Radke-Yarrow et al., 1983; Underwood & Moore, 1982), stating that gender differences in prosocial behaviour are small and not patterned. In recent years researchers have questioned whether the broad assumption that girls are more prosocial than boys, as indicated by the review by Eisenberg and Fabes (1998), is entirely accurate (Dovidio et al., 2006; Eisenberg et al., 2007). Some would even argue that, although the evidence appears *consistent*, differences found (for example the 0.18 effect size from Fabes and Eisenberg) are not strong or even significant enough to warrant attention. It is certainly true that in traditional evaluations, an effect size of 0.18 would be considered modest at best, small at worst. It can certainly be suggested that, alongside gender, a number of

other variables, such as social group membership, contextual factors, and individual differences in empathy and moral reasoning, could account for a significant amount of variation in prosocial behaviour. However, it would be dangerous to discount the impact of gender on prosocial behaviour performance, due to the nature of prosocial behaviour and its moral label as 'good'. If gender and gender knowledge is influencing the prosocial behaviour of boys and girls, even modestly, this is worthy of investigation as prosocial behaviour is important to societal functioning, and should be encouraged in all regardless of gender. Interestingly, though general effect sizes may be modest, more complex patterns emerge when studies are split or grouped within meta-analyses that increasingly implicate gender and reinforce the need for investigation. Specifically, researchers have questioned whether variations in effect size, and even direction of relationship, change based on study design characteristics such as age of participants, type of behaviours used, and method of measurement.

Fabes, Kupanhoff, and Laible (1999) analysed the effect sizes of gender differences in prosocial behaviour by age group from the studies used in Eisenberg and Fabes' 1996 meta-analysis. Small effect sizes were found for childhood (0.19, 0.17 for early childhood and childhood respectively) but much larger effect sizes were found for early adolescence (0.28) and late adolescence (0.35). The authors concluded that this indicated gender differences are present throughout development, but these differences generally increase with age, and that there is a large difference between childhood and early adolescence (Eisenberg & Fabes, 1998). In support, in Whiting and Whiting's (1973) influential cross-cultural study gender differences were largely found in older age groups. Furthermore, as mentioned, individual offers in the dictator game have also been found to be higher for girls than boys from 10 years onwards in samples of 7 to 17 year olds (Leman et al., 2009). This suggests that something may occur in adolescence to exaggerate these differences. For example, if girls are thought of as more prosocial and fair, then intensification of gender stereotypes in early adolescence (Hill & Lynch, 1983) could lead to girls performing behaviour that is

more in line with these expectations. Furthermore, in response to dating and when interest in the other gender increases, early adolescents may identify more strongly with their gender roles and try to conform to more stereotypical views of gender (Fabes, Carlo, Kupanoff, & Laible, 1999); and this may also result in more prosocial behaviour from girls. Conversely, stereotype intensification could just lead to more reports of prosocial behaviour from girls than boys, without differences in behaviour. This idea is further explored in this chapter (section 2.3.3) and in later chapters (see section 3.1.2.2 in Chapter 3, and Chapter 4). This again highlights the problem for the area of delineating changes in the actual behaviour from boys and girls from the influence of stereotypes and what people believe these differences to be.

When separated by type of prosocial behaviour, behaviours such as being kind or considerate yielded much larger effect sizes (.42) than others, such as sharing or donating (which produced only small effect sizes, .13). This suggests that different prosocial behaviours are performed (or, at least, are perceived or reported to be performed) in different frequencies by boys and girls. For example, when adolescents are asked to report on their prosocial behaviours, girls tend to report relational prosocial behaviours (such as providing emotional support or playing peacemaker), whereas boys are more likely to report prosocial action in public scenarios, and ones that involve risk and chivalry (Carlo, Hausmann, Christiansen, & Randall, 2003). These results reflect a similar pattern seen in adulthood, with women performing more communal and empathic prosocial behaviours, and men performing more agentic and performance based prosocial behaviours (Eagly, 2009). In fact, in a meta-analysis of helping behaviour, men were found to perform more of these behaviours than women (Eagly & Crowley, 1986), particularly in scenarios involving risk. Thus, different types of prosocial behaviour may be associated with boys and girls. Zabatany, Hartmann, Gelfand, and Vinciguerra (1985) found that different items elicited different ratings for boys and girls, based on whether the activity used within the item was regarded as traditionally masculine or feminine. Masculine (male-typed) items (such as

climbing to save a cat that is stuck in a tree) were judged to be more likely of boys than girls by children's classmates. In contrast, feminine items such as caring for or comforting another child, and neutral items such as sharing, were judged to be more likely to be performed by girls, again by classmates. Zaratany et al. argued that measures used to evaluate children's prosocial behaviour typically include a disproportionate number of female-typed items. This 'methodological skewing' may contribute to the fact that a large majority of studies find that girls are more prosocial than boys. Therefore, stereotypes concerning prosocial behaviour, and different types of prosocial behaviour, may have an important influence on what studies show in terms of gender differences. Interestingly, differences in effect sizes across behaviours and age groups largely disappear when study characteristics (such as method of measurement) are taken into account.

In Eisenberg and Fabes' meta-analysis (1998) when studies were split by method of measurement (self-report vs. other-report vs. observational methods) the effect sizes for gender differences varied greatly. Studies that relied on other-reports and self-reports showed significantly greater effect sizes (.33 and .28 respectively) than those that used observational methods (.13). In addition, later studies continue to find gender differences in reports of children's prosocial behaviours (Bosacki, 2003; Caprara et al., 2001), with fewer differences found in observational studies (Fabes, Martin, & Hanish, 2002). These findings suggest that when participants are allowed to report on behaviour, they may be influenced by an extraneous factor that is not as influential in more objective methodology (for example, when an impartial observer codes behaviour). Specifically, when participants report on their own and others' behaviour, they may be reporting what they feel they *should* be reporting, and how children are *supposed* to behave, rather than what is actually taking place. For example, peers, parents, and teachers have been shown to perceive girls as more prosocial than boys, in contrast to behavioural data which shows smaller differences, or none at all, for the same interactions (Bond & Phillips, 1971; Shigetomi, Hartmann, & Gelfand, 1981). With regards to differences found in studies based on age and type of behaviour, it

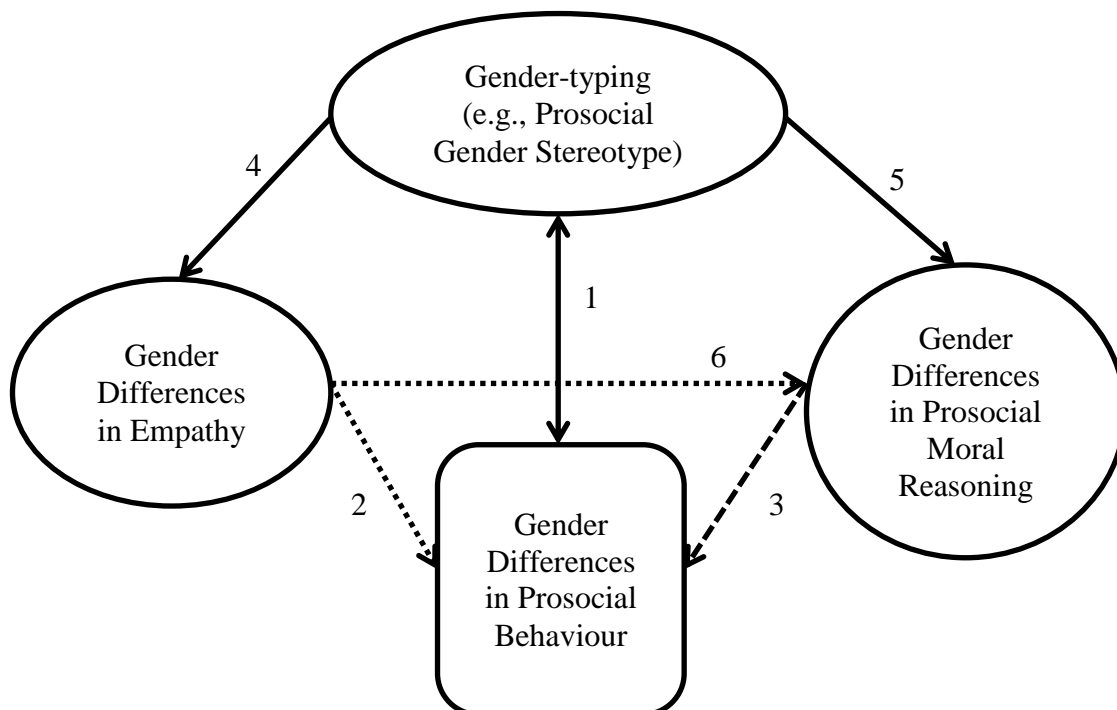
could be that results from self- and other-report studies could skew the results. For example, in adolescence girls may report performing more prosocial behaviour, in line with stereotypes and their increased intensity. They may also particularly report performing more of the behaviours that are particularly feminine, such as comforting.

There has been much empirical research on gender differences in prosocial behaviour, with studies showing that girls are more prosocial than boys. However, at present, it still proves difficult to determine whether results from these studies are based on differences in actual behaviour. This is mainly due to the significant methodological limitations of these studies, and this area of research, which weaken the conclusions made. Furthermore, it is also the prevailing *view* that girls are more prosocial than boys, and researchers and laymen alike *believe* that girls are more prosocial than boys (Eisenberg et al., 2007). This further complicates interpretation of these results, as this ‘prosocial gender stereotype’ may influence how studies are designed, as well as how participants respond in them. At present, few studies measure both reports of prosocial behaviour and observational data that would allow for comparison of the two. This might allow for some investigation into how influential the prosocial stereotype is on participants’ reports of behaviour. Even less attention has been paid to specifically investigating the existence of the prosocial gender stereotype, and whether beliefs about gender and prosocial behaviour predict how participants respond in studies. The following sections explore possible explanations for gender differences in prosocial behaviour, or why researchers and others alike might *believe* that girls are more prosocial than boys.

2.3 Explanations for Gender Differences in Prosocial Behaviour

The following sections investigate how convincingly gender differences in empathy, prosocial moral reasoning, and gender-typing (and the prosocial gender

Figure 2.2 Explanations for Gender Differences in Prosocial Behaviour Investigated in this Thesis



stereotype) can explain gender differences in prosocial behaviour. The basic model being explored is shown in figure 2.2. Each individual concept in the model may go some way to explaining differences in the prosocial behaviour of boys and girls. Gender differences in empathy and prosocial moral reasoning have dotted pathways leading to prosocial behaviour (2 and 3 respectively), as they provide weak explanations. Gender-typing has a solid pathway (1), as this may provide the most convincing explanation for these differences (as proposed by this thesis). Pathway 1 is also two-way, as gender differences in prosocial behaviour could be what the prosocial gender stereotype is based on, or vice versa, or both. Gender-typing also influences the other two concepts, as indicated by pathways 4 and 5, and gender differences in empathy may also influence prosocial moral reasoning (pathway 6). There is an argument to be made that empathy and prosocial moral reasoning may in fact be separate components of the same cognitive ability, and therefore should not be represented independently in the

model. This is particularly true when considering empathy as an ability that includes both cognitive and affective components (Eisenberg & Strayer, 1987; Strayer, 1987). Indeed, as the following sections explore, both abilities appear to be affected by similar issues, both methodological and in their susceptibility to influence from gender-typing. However, since both abilities relate to vast and largely differing bodies of literature, in this thesis, they are considered separately.

This section investigates one by one how these concepts might explain gender differences in prosocial behaviour, before focussing strongly on gender-typing as a prelude to the empirical focus of this thesis in Chapters 4 through 7. Direct biological influences on prosocial behaviour are not represented in this model, as this thesis does not investigate this relationship and little research has focussed on this question. As outlined at the beginning of this chapter, the focus here is on research explaining differences in *behaviour* and not studies that investigate *judgements* of behaviour (as this is the purpose of the empirical studies in this thesis).

2.3.1 Gender Differences in Empathy

There is a widely held stereotype that girls and women are more empathic than boys and men (Eisenberg & Lennon, 1983; Lennon & Eisenberg, 1987). Whether this stereotype is based on actual differences in boys and girls empathic responding or not, it may influence how boys and girls approach prosocial moral dilemmas. Section 2.1.2 outlined extensive literature highlighting the importance of empathy in prosocial behaviour. This section examines the literature investigating gender differences in empathy, and whether this might account for gender differences in prosocial behaviour.

Research investigating gender differences in empathy provide mixed results, with a number of studies finding that girls are more empathic than boys (Baron-Cohen & Wheelwright, 2004; Eisenberg & Lennon, 1983; Hoffman, 1977; Roberts & Strayer, 1996; Zahn-Waxler, Robinson, et al., 1992), and some finding

no differences (Block, 1979; Maccoby & Jacklin, 1974). Eisenberg & Strayer (1987) highlighted that the reason for conflicting results in this area may be due to the differing operationalisation of empathy. This is supported by the 1983 review by Eisenberg and Lennon which found that studies that measured empathy using self-reports found large gender differences, whereas studies using other measures (e.g., picture/story indices) found small gender differences. In studies using more objective measures (e.g., facial/gestural and physiological measures) no gender differences were found (Eisenberg & Lennon, 1983). Therefore, it would appear that both boys and girls have the same *capacity* for empathy, as studies that use physiological measures show little differences in baseline empathic response. In support of this, boys and girls show similar ability in assessing another person's affective, cognitive, or spatial perspective (Hoffman, 1977). This would explain why studies that define empathy widely (cognitive role taking, affective role taking etc.; Block, 1979; Maccoby & Jacklin, 1974) report that gender differences are minimal or absent.

So why are gender differences so prevalent in studies using report and picture-based measures? This could be due to the well-known stereotype that girls are more empathic than boys (Eisenberg & Strayer, 1987; Hoffman, 1977). This stereotype may be as a result of gender-role expectations, in which males are expected to be more competitive and to enter the workplace, and females to be concerned with family harmony and relationships (Bakan, 1966; Block, 1973; Parsons, 1964). These expectations may manifest in measures of empathy such as self-reports, with girls rating themselves as more empathic (and aligning themselves with the female gender role) and boys rating themselves as less empathic (and distancing themselves from the female gender role). In turn, results from studies using report methods may reinforce the stereotype of females as the 'empathic gender'.

In summary, research appears to show an inconsistent relationship between gender and empathy, influenced strongly by the method of measurement chosen. Put simply, it may be the desire to conform to gender roles and gender-

role stereotypes that encourages females over males to *express* greater empathy and explicitly use empathic responses in measures that allow for a more controlled or manipulated response. Conversely, it may be this same desire that inhibits males from responding in a similar fashion. Considering how important empathic capacity is to prosocial behaviour (as highlighted in section 2.1.2), and considering that boys and girls appear to have the same basic capacity for empathy, both would be expected to perform similar levels of prosocial behaviour. However, even with similar capacities for empathy, if girls are socialised to express empathic responses more than boys, they may then perform more prosocial behaviour or respond to prosocial scenarios more readily as a result of its increased social acceptability. Indeed, girls report experiencing more prosocial, care-based scenarios than boys, and therefore might have to employ empathy more in their everyday lives (Wark & Krebs, 1996). In this sense, gender differences in empathy, or the acceptability of empathy by boys and girls, may go some way to explaining gender differences in prosocial behaviour. However, gender norms and the stereotypes about empathy, may provide a more convincing explanation. As well as gender differences in empathy, gender variations in prosocial moral reasoning may cause boys and girls to approach prosocial scenarios in different ways, resulting in different levels of prosocial behaviour.

2.3.2 Gender Differences in Prosocial Moral Reasoning

The developmental changes in prosocial moral reasoning were outlined in section 2.1.4. Broadly, self-oriented and egoistic forms of reasoning – such as hedonistic reasoning – decline over development, whereas other-oriented forms of reasoning tend to increase – such as needs-oriented reasoning, stereotypic reasoning and empathic reasoning (Eisenberg-Berg, 1979; Eisenberg, Carlo, et al., 1995; Eisenberg et al., 1983; Eisenberg et al., 1991; Eisenberg et al., 1987). It could be that boys' and girls' use of different types of reasoning could influence how much they each perform prosocial behaviour. However, before exploring the

extent to which gender differences in prosocial moral reasoning might explain gender differences in prosocial behaviour, an important theoretical point must be revisited – what comes first, reasoning or judgement and action?

As discussed in section 2.1.4, Haidt (2001) proposes that moral intuition, a quick, subconscious sense of the rightness or wrongness of a behaviour, leads to the moral judgement of said behaviour. Moral reasoning about the situation or behaviour is presented as a post-hoc evaluation, succeeding moral judgement. This is in contrast to rationalist models that posit that moral reasoning precedes and aids moral judgement. If Haidt is correct, and considering that prosocial behaviour is moral, boys and girls should experience moral intuition about the rightness of this behaviour equally, resulting in similar positive moral judgement and action. This would suggest that gender differences in prosocial moral reasoning, as a post-hoc evaluation, would have little impact on gender differences in prosocial behaviour, as boys and girls would have already acted, and done so similarly, based on moral intuition. However, there are two main issues that suggest that prosocial moral reasoning is in fact important in regards to gender differences in prosocial behaviour. Firstly, it may be that moral intuition, as a fast, unintentional and subconscious process, is only relevant to a small subset of prosocial behaviours that require more urgency (for example, deciding to run into a burning building), compared to most prosocial behaviours that do not (for example, deciding whether to share a book). In the former situation, due to the clear urgency, the faster process of the intuition system may govern action, with little time for reasoning to develop until after the behaviour has been performed. Contrastingly, in the latter scenario, reasoning may play a larger role, as there is more time for this process to unfold. Therefore, most prosocial behaviour may be subject to reasoning before intuition. However, even in literature assessing gender differences in prosocial action involving risk (and usually accompanying urgency), men still tend to outperform women (Eagly & Crowley, 1986). This shows that even in scenarios where intuition might seem influential, boys and girls still differ in their prosocial behaviour. Secondly, Haidt

proposes much of the social intuitionist model on intuition regarding negative moral behaviours. It may be that instinctive moral intuition is not *as* relevant in guiding positive behaviours, and that there is more time in prosocial scenarios to reason about these actions. Furthermore, along the same lines as suggested by Pizarro and Bloom (2003), boys and girls may choose to expose themselves to different types of scenarios, in order to control what kind of moral intuition is experienced. For the purposes of this section, and the arguments made in this thesis, a rationalist approach is used (and reasoning is considered to come before judgement and action).

Gender differences in prosocial moral reasoning emerge in early adolescence. Girls at this age show higher levels of overall prosocial moral reasoning than boys (Eisenberg et al., 1991), and in late adolescence and early adulthood, gender patterns persist (Eisenberg, Carlo, et al., 1995; Eisenberg et al., 2005). The higher stages reached by girls (Stages 4a, 4b and 5 – as shown in Table 2.1 in section 2.1.4) are characterised by increased empathic considerations and responses. Research in the previous section highlighted how gender differences in empathy may be down to the socialisation of girls to be more empathic and caring. Therefore, higher levels of prosocial moral reasoning from girls in early adolescence could be due to a greater capacity for empathy in girls than boys (Zahn-Waxler et al., 2001), or girls could be placing greater importance on this type of reasoning in line with the stereotype that girls are more empathic than boys (Lennon & Eisenberg, 1987). Therefore, the model itself could be biased towards girls, by placing reasoning concerning empathy, relationships, and communal considerations (characteristics traditionally aligned with the female-gender role) at higher levels. Consequently, it may not be that girls and women are using ‘higher’ forms of reasoning than boys and men, they may just be choosing different forms of reasoning, or these forms may be differentially salient for boys and girls. It may be due to the organisation of the stage model that leads researchers to conclude that women are more advanced in their reasoning. Regardless of the structural limitations of the model, if boys and girls do reach

different stages (or prioritise different forms of reasoning) this may influence how they approach and even recognise prosocial scenarios.

Instead of using a stage system of moral judgements (Eisenberg et al., 1983), other studies that have investigated gender differences in moral reasoning in adulthood have found that men and women use different, broader categories of reasoning. Specifically, that women might use care-based reasoning, whereas men might use justice-based reasoning and that women and men may actively choose to assess moral dilemmas from different perspectives (Gilligan & Attanucci, 1988). Care-based reasoning is heavily based on maintaining relationships and attending to the emotional needs of others. This is in contrast to justice-based reasoning, which focusses on enforcing rules and duties. It is easy to see how increased use of care-based reasoning (in girls and women) to evaluate moral scenarios, might lead to more prosocial behaviour in response. Furthermore, increased use of care-based reasoning may mean girls are more attuned to the needs of others, and therefore more ready to respond with prosocial behaviour. Girls may also have an easier time identifying prosocial scenarios, and be more interested in helping others in need (Beutel & Johnson, 2004). However, many studies have found either a weak or no relationship between gender and moral orientation (Baumrind, 1986; Galotti, Kozberg, & Farmer, 1991; Haviv & Leman, 2002; Jaffee & Hyde, 2000; Skoe, Cumberland, Eisenberg, Hansen, & Perry, 2002; Söchting, Skoe, & Marcia, 1994; Wark & Krebs, 1996). This suggests that men and women do not approach prosocial moral dilemmas differently, and moral orientation can therefore not be used as convincing evidence for gender differences in prosocial behaviour. Interestingly, researchers have highlighted that it is gender role orientation, and the strength of participants' identification with "femininity" and "masculinity" that explain these differences in orientation, rather than gender (Haviv & Leman, 2002; Skoe et al., 2002; Söchting et al., 1994). Furthermore, studies have shown that both boys and girls are capable of using the other form of reasoning when prompted, and may just have an initial preference for one form over the other (Johnson, 1988). Finally, the type of dilemma

presented (prosocial vs. antisocial; personal vs. impersonal) also creates significant variations within this pattern of gender differences (Haviv & Leman, 2002; Wark & Krebs, 1996). Of specific interest is that females report more prosocial dilemmas, and males report more antisocial dilemmas (Wark & Krebs, 1996). Girls may therefore have more interest in prosocial scenarios, have greater experience responding to these dilemmas, and have more developed strategies for doing so. This previous experience may also influence their moral intuition and reasoning (Pizarro & Bloom, 2003).

In summary, research shows that there is mixed evidence regarding differences in the prosocial moral reasoning employed by boys and girls from early adolescence onwards. Stage models suggest that girls have ‘higher’ prosocial moral reasoning than boys, and this may explain why girls are ‘more’ prosocial than boys. However, it may just be that girls reach these higher stages due to a preference for those forms of reasoning – those focussed on empathy and broad moral principles. Even so, if girls are using more empathic forms of reasoning, they may be more willing or interested in approaching prosocial scenarios, and to respond in a prosocial manner. These differences in reasoning could go some way towards explaining gender differences in prosocial behaviour. Research on moral orientation however largely shows no differences between boys and girls in how they evaluate moral situations. Furthermore, gender differences in prosocial moral reasoning could be accounted for by other factors such as empathy – and the empathy gender stereotype (Lennon & Eisenberg, 1987). Therefore, it is unclear whether gender differences in moral reasoning provide a convincing explanation for gender differences in prosocial behaviour. Gender norms and stereotypes appear to influence both gender differences in empathy and prosocial moral reasoning, and may provide a much more convincing explanation for gender differences in prosocial behaviour.

2.3.3 Gender-Typing and ‘Gendered’ Judgements of Prosocial Behaviour

There is a widespread view that girls and women are more prosocial than boys and men (Eisenberg et al., 2007; Eisenberg & Mussen, 1989; Serbin, Powlishta, Gulko, Martin, & Lockheed, 1993). This can be viewed as a prosocial gender stereotype (Eisenberg et al., 2007). If prosocial behaviour is thought of as a ‘girl thing to do’, children may incorporate this into their gender knowledge. Girls may recognise this behaviour as something they, as the group to whom this behaviour ‘belongs to’, should perform. Boys on the other hand will recognise this as something they perhaps shouldn’t perform as much, as they may appear feminine. In this sense, prosocial behaviour may undergo a similar process to many behaviours, activities, and objects throughout development, and become a gendered behaviour. However, it is still unclear whether the prosocial gender stereotype is a reflection of observed differences in the behaviour of boys and girls, or is unsupported by behavioural differences. In other words, there are two distinct ways that gender stereotypes about prosocial behaviour can relate to gender differences in these behaviours. Firstly, there could be a bidirectional relationship between the two – with the stereotype that girls are more prosocial than boys influencing behaviour and with girls performing more prosocial behaviour in response to this stereotype consequently reinforcing and informing the stereotype further. However, it is also possible that the prosocial gender stereotype is not wholly supported by behavioural differences, and serves to exaggerate these differences and what people believe them to be. In this sense the prosocial gender stereotype may be important in explaining both why researchers and others believe girls are more prosocial than boys, as well as explaining differences in observed behaviour. This section explores the development of gender knowledge and approaches to explaining gender-typing and how prosocial behaviour may have become gendered will be discussed throughout.

2.3.3.1 Cognitive Approaches to Gender-Typing and Acquiring Gender Knowledge

Before exploring evidence suggesting that prosocial behaviour is gendered, it is important to outline how children come to cognitively amass gender knowledge, and understand the gender-labels of activities, objects, jobs, and behaviours amongst others. Central to the cognitive perspective is the idea that individuals are active information processors, not passive recipients of environmental input. Cognitive theorists emphasise this type of active, top-down-processing, meaning that prior expectations and cognitions play an important role in how incoming information is organised and handled (Martin, 2000). Most commonly, information will be subject to categorisation and have to ‘fit in’ in some way with existing information. This categorisation helps to bring coherence to the environment, as limits to human cognitive abilities impair the continual and infinite processing of our environment. In reference to gender, the cognitive categorisation of gender related material leads to, and consequently influences, the creation and maintenance of group actions and beliefs (Stroebe & Insko, 1989). Popular cognitive theories of gender development include cognitive developmental theory (Kohlberg, 1966) and gender-schema theory (Bem, 1981; Liben & Bigler, 2002; Martin, 2000; Martin & Halverson, 1981).

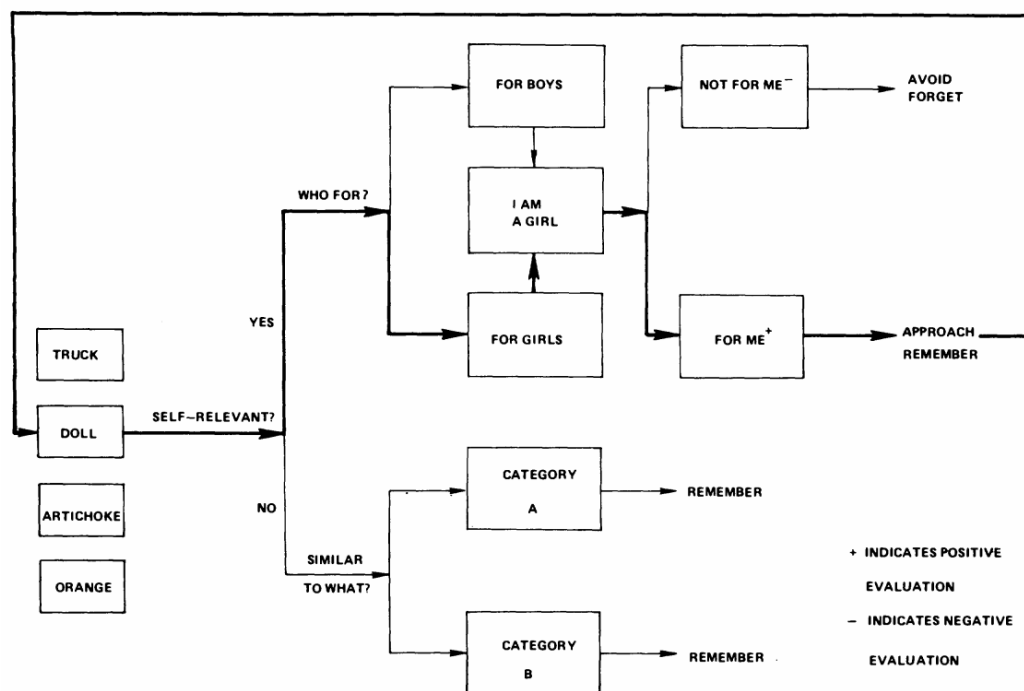
Beyond infancy, children begin to develop the cognitive abilities to understand gender and to express this understanding in more complex tasks (such as labelling and sorting tasks). Outlined in his cognitive developmental theory of gender-typing, Kohlberg (1966) proposed that children begin categorising people, including themselves, very early based on physical and behavioural cues. They then find it rewarding to behave in a gender-appropriate manner. According to Kohlberg, there are 3 phases that children go through in gaining an understanding of gender. First, between the ages of 2 and 3, they acquire basic gender identity – that they are male or female. By age 4 or 5, they acquire the concept of gender stability – accepting that males will remain male and females will remain female.

Finally, as children reach 6 or 7 they acquire gender constancy, appreciating that although superficial characteristics may change, their gender does not. Most cross-cultural evidence supports the progression of children through the stages in this order (Martin & Little, 1990; Slaby & Frey, 1975). Researchers have argued that Kohlberg's model does not account for the understanding of gender that infants aged less than 2 years show in looking tasks (Leinbach & Fagot, 1992), however it is not until age 2 or 3 that children begin to *understand* gender identity, and that they belong to one group or the other.

By having a highly gender-focused society, individuals are encouraged to create and interpret information through a gendered lens (Bem, 1993). This is supported by developmental intergroup theory, that posits that gender is a highly salient social category due to: its perceptual discriminability, the use of explicit labelling, the implicit sorting of people by gender, and size of the in-group in gendered contexts (Bigler & Liben, 2006, 2007). In this sense, a self-fulfilling cognitive mechanism is created. The environment, highly organised by gender in most societies, leads to the creation of gender theories and schemas, which then promotes the gender-related processing of newly incoming information. In turn, these highly gender-focused theories encourage the formation and continuation of gendered ideas by members of society through many levels of influence – including the socialisation of children (outlined in section 2.4.3.4). This is the main limitation to Kohlberg's 1966 model, in that children are seen as simple classifiers of information, with no real active desire to engage or seek out new material. Bem (1981) emphasises that gender has a huge functional significance within our society and is incredibly pervasive. Because of this functional significance, children quickly and readily develop gender schemas in order to process information in relation to this important social category (Bigler, Jones, & Lobliner, 1997). They also seek out new gendered information to add to their existing knowledge, and therefore take a more active role in gender-typing. Moreover, individuals also process information differently depending on the variance in how gender schematic they are (Bem, 1981).

Figure 2.3 Martin and Halverson's Schematic-Processing Model of Sex Role Stereotyping (for a Girl)

Source: Martin and Halverson 1981



Martin and Halverson's (1981) schematic-processing model of sex-role stereotyping is shown in figure 2.3. The key construct in this model is the schema, of which there are two. Firstly, there is the in-group/out-group schema, consisting of information that children need to categorise objects, behaviours, traits, and roles as being either 'for' males or females. This schema essentially contains information about what culture defines as appropriate for, or linked to, males versus females. As such, the gender schema theory model relies on one knowing which group one belongs to. Without this information, it is impossible to categorise information in an in-group/out-group manner. The second type of schema included in this model is the own-sex schema, which is a narrower, more detailed, and specific version of the first (in-group/out-group) schema. This consists of information children have about objects, behaviour, traits, and roles that characterise their own sex. This schema is tied explicitly to the gender of the

child, and children learn much more knowledge to do with their own gender, incorporated into their own-sex schema, than the other gender (incorporated into a less elaborate other-sex schema). In the model in figure 2.3, a girl is assessing a doll against her gender schema. After identifying that it is for girls, and that she is a girl, she gives the doll a positive evaluation of 'for me'. This is then remembered, and incorporated into the own-sex schema so that on the next approach this evaluation is remembered and occurs more rapidly. Dual pathway variations of this model have also been proposed, outlining two pathways towards gender differentiation (Liben & Bigler, 2002). One pathway is the attitudinal pathway, similar to the original model by Martin and Halverson that emphasises the role of gender attitudes in the decision to engage with a toy, behaviour or activity. The alternative is the personal pathway that instead posits that the interaction with the stimuli will influence gender attitudes about said stimuli. The degree to which one utilises one pathway over the other is largely determined by the importance that one places on gender, and also how developed ones' gender schemas already are when interacting with the object (Liben & Bigler, 2002). In terms of the development of gender stereotypes and the gender-typed preferences, children will use information provided to them by parents and incorporate that information into their gender schemas. When they approach objects, and engage in activities and behaviours, they will evaluate them against their gender schemas and the knowledge they have of those stimuli in terms of gender-typing.

In terms of prosocial behaviour, if parents, teachers, and peers hold a stereotype that girls are more prosocial than boys, children will learn this information and incorporate it into their gender schemas. For girls, this information will be particularly salient, as part of their own-sex schemas – which are more developed and extensive. Therefore, when deciding whether to engage in prosocial behaviour, boys and girls may reach different conclusions based on their gender schemas. When girls are deciding to perform prosocial behaviour, they may evaluate it as 'for them' and therefore proceed with this behaviour. Conversely, when boys are deciding, they may evaluate it as 'not for them' and

therefore not proceed. This is made complicated by the fact that prosocial behaviour is a moral behaviour, and is judged as a 'right' action. Children may therefore have to weigh these considerations against the information about gender and prosocial behaviour. Nonetheless, the cognitive knowledge that prosocial behaviour is thought of as more appropriate for girls may influence both boys' and girls' prosocial behaviour.

The idea that prosocial behaviour may be cognitively categorised in this way is crucial to the ideas explored in the empirical chapters in this thesis, and was influential in the design of the studies therein. It is with this knowledge that children and adolescents will both classify what behaviour is acceptable to perform, as well as judging the actions of others. It is also with this knowledge that children label and identify actions as gendered. Therefore, responses from participants that demonstrate that prosocial behaviour is gender-typed will give an insight into how these actions are cognitively 'organised' in reference to gender. Furthermore, it is with this insight that we can predict how these beliefs may influence and dictate boys and girls decisions with regards to prosocial behaviour performance across development. In this sense, gender-schema theory provides a framework for understanding how prosocial behaviour, as well as many other objects, characteristics and concepts, might become 'gendered'. It also provides a basis for understanding how boys' and girls' decisions to perform or not perform certain types of prosocial behaviour may be influenced by their knowledge about gender and gender-appropriate behaviour.

2.3.3.2 The Development of Gender-Typing

Gender-typing in children begins at a very early age (Ruble, Martin, & Berenbaum, 2006). This is not surprising considering that gender stereotypes surround us almost constantly. Children aged between 18 and 30 months have already developed a categorical self, incorporating the concept of their own sex, and can begin to classify themselves on the basis of these variables, including

labelling themselves as a boy or a girl (Stipek, Gralinski, & Kopp, 1990). Once children have established these categories, they can begin assigning characteristics to them, assessing whether certain concepts are congruent or incongruent with the category they belong to (as discussed in section 2.3.3.1). Children's gender knowledge therefore begins to expand very rapidly around this age as information from the environment is absorbed and sorted. By preschool children are able to categorise occupations, toys, clothing, household items and activities typically associated with one gender or another (Poulin-Dubois, Serbin, Eichstedt, Sen, & Beissel, 2002; Ruble et al., 2006) and have acquired gender associated metaphors such as "bears are for boys" and "butterflies are for girls" (Leinbach, Hort, & Fagot, 1997). Already girls (and women) are identified by children as the 'softer' of the two genders (Leinbach et al., 1997), possibly laying the foundation for beliefs that girls (and women) are nicer, more caring, and also more prosocial than boys (and men).

During childhood, as gender-typing expands and strengthens, children apply this knowledge as a blanket rule rather than a flexible guideline. They also learn more general rules about what is appropriate for boys and girls – such as dolls are for girls, and cars are for boys – laying the foundations of gender stereotypes. For example when children were asked whether gender stereotypes can be violated, half or more 3 to 4-year olds said "no" (Blakemore, 2003). Furthermore, children younger than 6 tend to ignore individuating information when making judgements about toy preference, instead relying on their own gender stereotypes (Biernat, 1991). Most children at this age do not realise that characteristics associated with one's gender do not determine whether a person is male or female, or vice versa. Over middle childhood and adolescence, gender stereotypes become stronger as more information about gender appropriate behaviour is amassed. Research has shown that the stereotyping of personality traits increases steadily across middle childhood becoming relatively fixed and adult-like at around age 11, such as assigning traits such as *tough*, *rational* and *cruel* as masculine and *gentle*, *affectionate* and *dependent* as feminine (Best,

2001; Heyman & Legare, 2004). Interestingly, elementary school students are most familiar with “positive feminine” and “negative masculine” traits (Serbin et al., 1993). This shows that both boys and girls have picked up a notion of one gender being ‘nicer’ or as having a more positive set of traits than the ‘not nice’ or ‘mean’ gender, the former being females, the latter males (Serbin et al., 1993). If girls are recognised as the ‘nicer’ gender, then they are likely to conform to this stereotype, as well as being encouraged to act more prosocially than boys.

In late childhood and adolescence, children increasingly understand that traits and attributes may be associated with one gender, but are not defining, and therefore gender-stereotypes become more flexible (Martin, Ruble, & Szkrybalo, 2002). Over middle childhood in particular, the evidence shows a complicated series of interactions, involving cognitive, social learning and schematic processes that result in highly gendered behaviours in everyday activities, but also behaviour that is not as gendered (Serbin et al., 1993). This occurs as children try to balance ever increasing gender schemas as well as knowledge over flexibility. A study by Katz and Ksiansnak (1994) showed a positive relationship between self-flexibility in gender-atypical behaviour and age over middle childhood through adolescence. Katz and Ksiansnak explain this relationship in terms of increasing cognitive understanding of the conceptual meaning of sex and gender, and the notion of definability based on biological sex. It could be that, at this point in development, both boys and girls are able to perform prosocial behaviour because of this flexibility. Boys and girls may both perform prosocial behaviour, within their own gender groups, with minimal negative judgement for doing so (towards boys) because of the flexibility of attitudes.

However, whilst some researchers claim that gender stereotype flexibility increases (Carter & Patterson, 1982; Eckes & Trautner, 2000; Katz & Ksiansnak, 1994), other studies find that gender stereotype knowledge consolidates and intensifies in early adolescence (Hill & Lynch, 1983) and that gender stereotype flexibility decreases at this age (Bartini, 2006; Galambos, Almedia, & Petersen, 1990; Huston & Alvarez, 1990; Stoddart & Turiel, 1985). A number of factors

could account for this decrease. For example, pubertal changes magnify differences in physicality between the sexes, and cause adolescents to think of themselves in more gender-linked ways (Berk, 2012). Parents may also encourage more gender-appropriate activities than in childhood (Crouter, Manke, & McHale, 1995), and when adolescents start to date they may act in more gender-typical ways to appear more attractive (Fabes et al., 1999; Maccoby, 1998). It is still unclear whether gender stereotype flexibility increases or decreases over adolescence. Regardless, reactions to gender atypical behaviours remain extreme and consistent. Children and adolescents alike tend to take a harsh view of gender norm violations, such as boys playing with dolls and girls acting roughly, with higher levels of intolerance for boys engaging in these “cross-overs” (Blakemore, 2003; Carter & McCloskey, 1984; Fagot, 1985; Levy, Taylor, & Gelman, 1995). Therefore, in early adolescence, boys may be judged less positively when performing prosocial behaviour, as this may be seen as a gender norm violation. As adolescents move towards a mature personal identity in young adulthood they become less interested in what others think of them and feel less pressure to conform to stereotypes in general (Berk, 2012). Gender however, does continue to be an important part of the self throughout the lifetime.

The gender knowledge amassed in childhood and adolescence would appear to lay the foundation of gender role stereotypes in adulthood. Cross-cultural research conducted in 30 nations revealed that the instrumental-expressive dichotomy is a widely held stereotype around the world (Williams & Best, 1990). Investigated further by Lueptow et al. (2001), instrumental traits reflecting: *competence, rationality, dominance, and assertiveness*, were regarded as masculine; expressive traits, emphasising: *warmth, caring, submissiveness, and sensitivity*, were viewed as feminine. Furthermore, the categorisation of these traits has persisted from the 1970s to the late 1990s (Lueptow et al., 2001). This is despite intense political activism promoting gender equality in the 1970s and 1980s. As well as these traits, other gender stereotypes exist. These include physical characteristics (tall, strong and sturdy for men; soft, dainty, and graceful

for women), occupations (truck driver, chemist, and insurance agent for men; school teacher, nurse, and secretary for women), and activities or behaviours (good at fixing things and leader in groups for men; good at child care and decorating the home for women) (Biernat, 1991; Powlishta, Sen, Serbin, Poulin-Dubois, & Eichstedt, 2001). Additionally, the gender knowledge that girls and women are more prosocial than men (Eisenberg et al., 2007), may be incorporated into the same own- or other-sex schema (for girls and boys respectively) which contains the knowledge of women as more caring and nurturing.

It is clear that gender-typing begins very early, becomes more complex with age, and varies in intensity across development. The degree to which gender knowledge, and gender stereotypes, influence boys' and girls' behaviour varies and this is often dependent on how intensely felt or how salient stereotypes are at any given developmental stage. Despite variance in gender stereotype intensity, acting in gender-atypical ways appears to be consistently negatively judged, particularly for boys. Furthermore, despite the changing role of women in society over the last 40 years, gender stereotypes about how men and women, and boys and girls, act and should act have remained largely the same (Lueptow et al., 2001). Examining the particular characteristics that are 'assigned' to males and females, prosocial behaviour may become a gender-typed behaviour, due to the characteristics of prosocial behaviour possibly being more easily associated with the female gender role. Children may also be exposed to the prosocial gender stereotype, and incorporate this into their own knowledge. The upcoming sections explore approaches as to why gender-typing occurs. Specifically, section 2.3.3.3 explores biological and evolutionary approaches to explaining gender-typing, whilst section 2.3.3.4 explores how parents, teachers and peers socialise children and adolescents with regards to gender. Throughout, there is a specific focus on why prosocial behaviour may become gendered as feminine.

2.3.3.3 Biological and Evolutionary Explanations for the Development of Gender-Typing and the Existence of Gender Stereotypes

Whilst this thesis is primarily concerned with the social factors that contribute to the formation of gender stereotypes, and the consequent effect on prosocial behaviour, it would be ignorant not to briefly explore how some biological approaches explain this process. As mentioned, there is high congruency across cultures for the instrumental-expressive dichotomy (Williams & Best, 1990). Gender differences in behaviour are observed in 97% of mammalian species, including chimpanzees, our closest relative (de Waal, 1993). The universality of these differences suggests that there may be ‘fundamental’ distinctions between men and women, as a result of differences in biology. In this vein, if prosocial behaviour is consistently linked to the female gender role, this might suggest that higher levels of prosocial behaviour by women is also ‘innate’ or biologically determined.

Central to the argument for biology is the research surrounding hormones and the role they play in determining gender typical behaviours, notably testosterone. Animal experiments have already shown a clear influence of testosterone on behaviour in a wide variety of species; increasing male-typical sexual behaviour and general aggression, and decreasing maternal care giving, in both males and females (Beatty, 1992). Aggression is a trait typically associated with males (Lueptow et al., 2001) and is generally not thought of to be compatible with prosociality. In addition to the extensive work on hormones, some arguments have been made for differences in brain structure (Baron-Cohen, 2003), and genetic make-up influencing gender-typing (Blakemore, Berenbaum, & Liben, 2009). However, further research is needed in these areas, particularly in how they relate to the frequency of prosocial behaviour performed by boys and girls.

As gender-typed behaviour is so widespread, it may appear that gender differences are innate. However, it may simply be that gender differences are so pervasive that gender, like culture, is a human production that simply depends on

everyone constantly 'doing gender' (Lorber, 1994). To that end, the continual reproduction and reinforcement of a differing set of gendered behaviours may create the differences we observe. This is particularly important with regards to prosocial behaviour. The empirical chapters in this thesis explore the idea that people believe that girls are more likely than boys to act prosocially. This belief may be based on differences in observed behaviour, they may not, but if this belief is so widespread it may be difficult to delineate whether any differences are innate, or biologically driven, or are the result of a continual and widespread cultural reproduction of gender. Eisenberg and Mussen (1989) conclude that based on the limited evidence both biological and cultural factors influence the development of social behaviour and they cannot be fully differentiated. They state that, "What humankind inherits is the potential for learning a wide variety of social behaviour and certain temperamental personality characteristics. What is actually acquired depends very much on the social situation..." (Eisenberg & Mussen, 1989, p.41). In conclusion, whilst biology undoubtedly plays some role in the differentiation of behaviour between boys and girls, social factors may mediate the relationship between biology and gender, and the gendered concepts (created by humans) surrounding sex may be more influential. In other words, prosocial behaviour may be influenced by biology to some extent, but the reinforcement of gendered concepts associated with women (i.e., the prosocial gender stereotype), may prove more important in creating and maintaining gender differences. Evolutionary theories incorporate both biological and social approaches.

Social role theory was first proposed by Eagly over 25 years ago (1987). It explains differences in behaviour between the sexes in terms of the contrasting distributions of men and women into different social roles (Eagly, 1987; Eagly, Wood, & Diekmann, 2000). Evolutionary theory posits that sexual dimorphism arises out of each sex passing on different genetic variations as a result of social adaptations, with these adaptations being largely dictated by differing reproductive pressures (Buss, 1999; Geary, 1999; Rossi, 1984). Historically, due

to differential biosocial restraints associated with reproduction and childcare (Huber, 2007), as well as biological variances in size and strength, women and men are allocated different social roles in society; women stay home and rear children, and men leave the home in search of food, or in more recent societal models, to work. The social roles that men and women are allocated in society, namely the work/home division, influence the skills men and women learn in order to fulfil their duties within their social roles. For example, in a typical homemaker-provider division of labour, women and girls learn domestic skills such as cooking and sewing, and men learn skills that are marketable in the paid economy (Eagly et al., 2000). The types of social behaviour that typify this division have been characterised in terms of the distinction between communal (or expressive) and agentic (or instrumental) characteristics, as discussed in section 2.4.3.1 (Bakan, 1966; Eagly, 1987). Thus, women's accommodation to the domestic role fosters a pattern of friendly and interpersonally facilitative behaviours that can be termed communal; with a substantial focus on others and the feelings and thoughts of others. Particularly important in encouraging communal behaviours is the assignment of the majority of childrearing to women, a responsibility that requires nurturing behaviours that facilitate care for children. In contrast, men's greater role in employment favours a pattern of relatively assertive and independent behaviours that can be termed agentic (Eagly & Steffen, 1984). Gender roles, therefore, emerge from the activities carried out by individuals of each sex in their sex-typical occupational and family roles; the characteristics required by these activities become stereotypic to women or men (Eagly et al., 2000).

Social role theory has clear implications for gender differences in prosocial behaviour and the stereotype that girls and women are more prosocial than boys and men. As women focus more on child rearing, and develop more communal skills, they may have a greater propensity for prosocial behaviour. This is due to prosocial behaviour requiring good interpersonal skills, greater empathy, and more focus on care – all fostered by the typical female social role. The

stereotype that girls and women are more empathic than boys and men (Eisenberg & Lennon, 1983; Lennon & Eisenberg, 1987) may therefore also be due to the fact that women fulfil a care-based social role. As empathy is strongly related to prosocial behaviour, this may also lead people to assume that women are ‘naturally’ more prosocial. Interestingly, in specific reviews of social role theory and its impact on prosocial behaviour, Eagly posits that differing social roles for men and women may not impact the quantity of prosocial behaviour, but more the quality or type of prosocial behaviours performed (Eagly, 2009; Eagly & Koenig, 2006). This idea is explored more in Chapter 6. However, putting this idea aside, it is easy to see how prosocial behaviour might be automatically attributed to women (as one of their behavioural tendencies) due to their social role.

Social role theory can appear outdated, in the sense that there may no longer be a fundamental need for men and women to fulfil these social roles for the survival of a community. However, biological differences between men and women, and their differential commitment to childcare have not changed. Therefore, evolutionary approaches to gender-typing like social role theory are still relevant in showing how differences in biology translate into social divisions between men and women that, in turn, affect behaviour. The physical differences in biology cause differential commitment to reproduction; the social divisions that result are the differential distribution of men and women in work and childcare roles. Of specific interest here is that one of the characteristics that women may adopt in order to succeed in their social role is prosocial behaviour, alongside for example being more caring or nurturing. Therefore, even without the need for the social division of men and women, traditional gender roles may be reproduced by cultural norms, including more prosocial behaviour from women. In other words, the characteristics and behaviours associated with men and women may be socialised by those around us.

2.3.3.4 The Socialisation of Gender Roles

There are 3 main groups of people (or agents) that influence children's gender role development, as well as imparting and reinforcing gender knowledge. These are parents, teachers, and peers. How each of these groups socialise gender will be discussed here, with a specific focus on how this might affect the likelihood of one gender to perform more prosocial behaviour than the other. This is with the goal of highlighting the possible and probable importance of these groups in differentially moulding the prosocial behaviour of boys and girls.

Parents

There are 4 primary types of influence that parents can have on gender development. Firstly, parents create a gendered world for their children, known as **“channelling or shaping”** (Eisenberg, Wolchik, Hernandez, & Pasternack, 1985). Examples of this include: giving gender related names – boys are more likely to be given traditional or ‘standard’ names, be named after a relative, and to have less variance in names given over time (Barry & Harper, 1995; Lieberson & Bell, 1992); assigning gendered household chores – girls are given tasks such as laundry and helping with the dishes, boys are much more likely to be assigned yard work or to shovel snow (Lytton & Romney, 1991); encouraging boys and girls in different academic subjects – boys are more likely to be encouraged in subjects like mathematics, and girls in subjects like literacy (Jacobs & Eccles, 1992; Tenenbaum & Leaper, 2003); and differential encouragement of gendered activities – encouraging sons much more in sport than girls, and discouraging feminine activities in boys, such as needlework (Fredricks & Eccles, 2002; Jacobs & Eccles, 1992; Kane, 2006). Whilst maybe not having a direct impact on prosocial behaviour development, channelling is important in laying the foundations for children's differential gender development. For example, participating in more sport may encourage boys to be competitive and dominance oriented, and not to focus on the feelings of others, that may potentially

discourage prosocial behaviour. Additionally, assigning chores that are more communal and involve more care may encourage girls, more than boys, to be more kind or think in a more prosocial way. It may also mean that others view girls as more prosocial, as a result of the way they are 'channelled'.

Secondly, parents can give “**differential treatment**” to boys and girls (Blakemore et al., 2009). This includes: differences in parents initial reaction to infant boys and girls – both mothers and fathers rate new born daughters as softer, finer-featured, littler, and more inattentive, and rate new born boys as firmer, larger, more alert, stronger and hardier (Rubin, Provenzano, & Luria, 1974); parents influencing toy choice – by encouraging sons and daughters to play with traditionally gender-typed toys and reacting more positively when they do so (Caldera, Huston, & O'Brien, 1989; Fagot & Hagan, 1991; Jacklin, DiPietro, & Maccoby, 1984; Langlois & Downs, 1980; Snow, Jacklin, & Maccoby, 1983); differential use of language – mothers talk more to and are more supportive towards girls than boys (Leaper, Anderson, & Sanders, 1998) and fathers use more macho language with sons (Parke, 2002); and differences in parent's play with children – with parents involved in more rough-and-tumble play with boys, and more collaborative play with girls (Leaper & Gleason, 1996; Lindsey & Mize, 2000, 2001; Parke, 2002). The way parents describe their children, as well as the differential use of language in conversation, may have an impact upon prosocial behaviour. For example, it may teach girls to be more dainty, measured and calm, which may be more conducive to performing prosocial behaviour. Finally, and particularly important with regards to prosocial behaviour, are the differences in parents socialisation of emotion in boys and girls. Principally, parents are often more comfortable with emotional expression from girls (Blakemore et al., 2009). They therefore are generally more punitive towards emotional behaviour from boys (Eisenberg, Fabes, & Murphy, 1996), put more pressure on boys to control their emotions (Eisenberg, Cumberland, & Spinrad, 1998), and use more emotion words with daughters than sons (Cervantes & Callanan, 1998; Fivush, 1998). Considering the important role of empathy and emotional responding in prosocial

behaviour (section 2.2.2), this differential encouragement could prove very important to how boys and girls approach prosocial scenarios and how proficient they are at picking up emotional clues from others when they are in distress.

Parents can also give “**direct instruction**” to their children about appropriate social behaviour (Parke & Buriel, 1998). Gelman, Taylor and Nguyen (2004) examined how parent-child conversations about gender might contribute to children’s gender knowledge and in particular their gender essentialist views (that differences between the sexes are biologically based and are unchangeable, rather than more flexible, overlapping categories). The researchers observed mothers and their 2- to 6-year-old children engaged in conversations about gender-stereotypical and counter-stereotypical behaviour, in both children and adults. They found that mothers talked about gender more than 90% of the time when talking about the characters, made generic references about gender a great deal of the time (e.g., “girls can sew”), and made little reference to other characteristics such as age and ethnicity (Gelman et al., 2004). This would certainly have the impact of emphasising gender as an important category. Whilst not examined in this study, if parents hold gender stereotypes about prosocial behaviour, they may express them in these interactions (e.g., “girls are nice” or “girls help more than boys”). This may therefore directly teach children that girls are more prosocial than boys.

Finally, parents can also act as “**models**” for their children and their gendered behaviour (Blakemore et al., 2009). Parents primarily act as models for the different social roles that women and men occupy in most societal models, namely the women as homemaker and the father as breadwinner (see section 2.4.3.3). Whether families operate in this typical model or not, mothers still spend more time with children than fathers (Geary, 2000; Sandberg & Hofferth, 2001); mothers also provide more of a caretaking role to children, with fathers occupying the role of playmate (Blakemore, 1990; Parke, 2002). Therefore, the model provided for girls is one of care and nurturance, and the model for boys is one of activity and competition. Through this modelling, girls may learn to better orient

themselves to the needs of others and respond to them more readily, resulting in more prosocial behaviour.

Research suggests that girls are socialised by parents to place an emphasis on close relationships whilst boys are socialised towards competition (Eagly & Crowley, 1986). This may predispose females to engage in prosocial behaviours in day to day relations with peers (Eagly, 1987). This is likely considering the reinforcement offered to girls with regards to these behaviours and the higher levels of appropriateness associated with girls engaging in prosocial actions (Power & Parke, 1986). Furthermore, in many cultures, nurturance and helpfulness towards others is thought of as more 'appropriate' for girls than for boys, and they are therefore reinforced more frequently and more strongly for such behaviour (Fagot, 1978; Hastings et al., 2007; Power & Parke, 1986). Studies using parents ratings of the frequency of their children's behaviour show that parents rate that girls are more prosocial than boys (Bond & Phillips, 1971; Phillipsen, Bridges, McLemore, & Saponaro, 1999; Shigetomi et al., 1981; Veenstra et al., 2008). These studies could be based on a *belief* held by parents that girls should be, or are, more prosocial than boys. Conversely, they could be based on actual gender differences in prosocial behaviour observed by parents; or be a combination of the two. If these reports are based on the beliefs of parents rather than actual observations of behaviour, this may give an indication of how parents might socialise boys and girls differently, based on their gender-typing of prosocial behaviour.

In summary, despite meta-analyses indicating that parents rarely report socialising their sons and daughters differently (Lytton & Romney, 1991), both mothers and fathers clearly pass many gender-related messages on to children through a variety of methods. In reference to prosocial behaviour, parents may encourage, reinforce, and model prosocial behaviour differentially for girls and boys in line with the stereotype that girls are, or should be, more prosocial than boys. When children enter school, teachers reinforce the gender stereotypes that have been taught in the home environment by parents.

Teachers

Teachers convey a number of gender-related messages to children (Ruble et al., 2006). They also often use group comparisons that emphasise gender stereotypes (such as “boys, I wish you would all quieten down like the girls!”) promoting in-group favouritism and out-group prejudice in children (Bigler, 1995). In preschool children, teachers have been shown to directly impact the development of aggression, with differential teacher reactions resulting in more aggression from boys (Fagot, Hagan, Leinbach, & Kronsberg, 1985). In other words, boys and girls behaved similarly, but teacher’s differential responding changed the levels of behaviour in line with teachers gender stereotypical views of boys as more aggressive and assertive and girls as more passive and gentle. Similar results have been found in children aged 3- to 5-years old (Serbin, O’Leary, Kent, & Tonick, 1973). Furthermore, teachers have been shown to address girls and boys differently (e.g., girls called “cutie,” or “cuddle bug,” and boys called “bud,” or “little worm”), and provide them with different, gender-typed toys and activities (Chick, Heilman-Houser, & Hunter, 2002). These patterns of socialisation may be conducive to more prosocial behaviour from girls than boys, as they are generally encouraged to be more considerate and calm. They also have to be more sensitive in order to get the attention of teachers, and may therefore be used to employing more of these types of strategies (Fagot et al., 1985).

These patterns continue across elementary and high school. Teachers praise boys for knowledge and girls for obedience (Berk, 2012), and continue to encourage boys to dominate classroom discussions (Sadker & Sadker, 1994). Boys also receive more attention from teachers (Kelly, 1988) and get a much wider variety of instruction and feedback, including the more valuable forms – such as remediation, where children are told what they have done wrong as well as how to improve (Sadker & Sadker, 1994). Girls are continually reinforced to be submissive, calm, and gentle. In contrast, boys are reinforced to be aggressive,

assertive, and dominant. Therefore, girls may have greater propensity for prosocial behaviour, as they are socialised to be more considerate towards the needs of others by parents and to be calm and gentle by teachers. By being calmer, and not so focussed on aggression and dominance, girls may find it easier to recognise the distress of others and have more time to do so.

There is currently little research on teachers' differential socialisation of prosocial behaviour, with most studies focussing on aggression. However, research using teacher reports of prosocial behaviour show that teachers rate girls as more prosocial than boys (Birch & Ladd, 1998; Côté, Tremblay, Nagin, Zoccolillo, & Vitaro, 2002; Hastings, Zahn-Waxler, Robinson, Usher, & Bridges, 2000; Keane & Calkins, 2004; Ladd & Profilet, 1996; Russell et al., 2003; Shigetomi et al., 1981; Veenstra et al., 2008; Warden et al., 2003; Wentzel, 2002; Wentzel et al., 2007). Again, as with parents, these reports of behaviour by teachers could reflect a broader prosocial gender stereotype they hold. These reports could be based on the *belief* that teachers have that girls are, or *should be*, more prosocial than boys. If parents and teachers teach children gender stereotypes, then peers can be seen as society's enforcers of those stereotypes, as well as helping to define them.

Peers

In the role of gender stereotype enforcer, peers help individual children define themselves and their gender identities (Leaper & Friedman, 2007; Rose & Rudolph, 2006). For example, in work by Fagot (1985), peers displayed marked reactions when children violated appropriate gender-role behaviour patterns. For example they criticised boys who played with dolls five to six times more often than boys who conformed. Peers were not as harsh towards girls who failed to conform, but did tend to ignore this behaviour. Across childhood, peer groups become increasingly segregated by gender. This in turn provides additional opportunities to learn accepted gender roles (Fagot, 1985; Maccoby, 1998).

When children are 4.5 years old, they spend nearly three times as much time with same-sex play partners than children of the other sex, and by age 6.5 years, this has increased to 11 times (Maccoby, 1998). As boys and girls continue to be separated across childhood two ‘distinct subcultures’ of shared knowledge, beliefs, behaviours, and interests arise (Maccoby, 2002). The two ‘subcultures’ that are created incorporate a wide range of characteristics and behaviours. For example, boys and girls also have different play styles. Boys’ play tends to be high-energy, boisterous, loud, and involve fighting and physical activity (Pellegrini & Smith, 1998). Girls on the other hand, focus on games involving turn-taking and cooperation (Maccoby, 1998), and their pretend play often involves domestic activities, family interactions, and familiar settings (Blakemore et al., 2009). The characteristics of girls’ play styles could be more conducive to prosocial behaviour and help encourage this behaviour, particularly in their same-sex peer groups. As girls play styles are more focussed on accommodating the needs of others, rather than the competition and dominance shown in boys groups, they may be more experienced with responding accordingly. In turn, this may lead to more prosocial behaviour from girls

Children also learn different styles of influence over their same-sex peers. Girls enlist “gentler” tactics, focusing on partners’ needs, and using persuasion and polite requests, with boys relying more on commands, threats and physical force (Leaper, 1994; Leaper, Tenenbaum, & Shaffer, 1999). The different play and influence styles boys and girls have may form part of the reason that gender segregation occurs in the first place. For example, girls may view boys’ rough-and-tumble play style and competition-dominance orientation as aversive and thus avoid interactions. They also find it hard to persuade boys, and therefore avoid them as they are unresponsive to their requests (Maccoby, 1998). It may also be a key reason why girls perform more prosocial behaviour than boys, as they may become more attuned to the needs of others through collaborative play and more sensitive conversational tactics. As gender segregation continues, peers encourage and exaggerate these different play styles and form an increasingly important ‘us-

versus them' mentality, favouring the interactions experienced with the in-group (interactions that are within their comfort zone) over the out-group (Gleason, Gower, Hohmann, & Gleason, 2005). This may therefore contribute to increasing gender segregation across childhood, and increased stereotype acquisition (including the prosocial gender stereotype). It has been found that those children that spend more time with same-sex peers show significantly higher gains in gender-typing than those who do not, particularly with toy selection and activity level (Martin & Fabes, 2001).

The gender stereotypes held by peers about prosocial behaviour have received little research attention. However, studies that measure peer nominations of prosocial behaviour have shown that children aged 9-14 consistently nominate more girl classmates as prosocial than boy classmates (Keane & Calkins, 2004; Warden et al., 2003; Warden & MacKinnon, 2003; Wentzel, 2002; Wentzel et al., 2007). Again, it is not clear from these studies whether girls are indeed showing more prosocial behaviour than boys, or whether participants are making judgements about girls as a gender group (and nominating their female classmates because they *believe* girls are more prosocial), or as a combination of both of these factors. However, these nominations by participants could reflect a belief by children and preadolescents that girls are more prosocial than boys; a belief based on the observation by both genders on how boys and girls operate in their two 'subcultures'.

It is clear that parents, teachers, and peers all play an important role in the socialisation of gender stereotypes, and in shaping and reinforcing children's gender typical behaviour. As part of this process, and in line with traditional views of femininity and masculinity, girls *may* be socialised more strongly towards prosocial behaviour than boys. Furthermore, factors that have been shown to be important in prosocial behaviour, such as empathy, are indeed socialised more into girls than to boys. They are also viewed as more acceptable for girls to perform, and are therefore rewarded, and reinforced, differentially. Studies do show that girls are consistently rated as more prosocial than boys by parents,

teachers, and peers. These nominations may be representative of differing levels of prosocial behaviour by boys and girls. Beyond this, they likely reflect the beliefs of these three groups that girls are more prosocial than boys, at least on some level. It is therefore important to investigate what beliefs children and adolescents have about gender and prosocial behaviour, to theorise as to how this may impact reports and performance of prosocial behaviour.

2.4 Aims for This Thesis

Currently, studies show that parents, teachers and peers rate girls as more prosocial than boys in that their rating of girls' prosocial behaviour is typically higher when compared to their rating of boys' prosocial behaviour. As stated throughout this chapter, it is not clear whether differences in prosocial behaviour reports are the result of the reproduction *of* gender stereotypes (by children), or are made based on expectations *from* gender stereotypes (Eisenberg & Mussen, 1989), or a combination of both. Currently, little research has empirically investigated the prosocial gender stereotype, and whether people believe that girls, as a gender group, are more prosocial than boys. This thesis aims to assess whether children and adolescents hold gender stereotypes about prosocial behaviour and the specific questions and aims of this thesis are outlined below.

- (i) Is there a prosocial gender stereotype?

The case has been made above for the impact of a prosocial gender stereotype – the idea that girls are more prosocial than boys – on how prosocial behaviour studies are designed, conducted and responded to. However, despite the speculative evidence presented above for the existence of said stereotype, little research attention has focussed on exploring exactly how children and adolescents understand gender to relate to prosocial behaviour; specifically, whether they *think* that girls are more prosocial than boys. Key to exploring this issue is asking participants this question directly, rather than comparing their reports post-hoc.

For example, asking questions like ‘who do you think is more likely to act prosocially?’ and allowing participants to choose between gender groups may be important in assessing participants’ broader knowledge about gender and prosocial behaviour. Furthermore, these types of questions ask participants about boys and girls as a gender group, rather than report studies that ask them to call on their specific experiences with children. This is important because these types of questions allow conjecture on the importance of broader gender knowledge on how these groups perceive and react to prosocial behaviour from boys and girls. Chapter 4 explores this question.

- (ii) Does gender affect how children and adolescents morally judge prosocial action by boys and girls?

Research presented above also highlighted how children who violate the gender knowledge and expectancies held by peers are often harshly chastised (Carter & McCloskey, 1984; Fagot, 1977, 1978, 1985). This also appears to be worse for boys (Carter & McCloskey, 1984; Young & Sweeting, 2004), and boys report feeling more felt pressure to act like their own gender than girls do (Egan & Perry, 2001). If there is a prosocial gender stereotype, and children and adolescents expect more prosocial behaviour from girls, it may be viewed as gender atypical when boys perform this behaviour. Boys may therefore experience negative reactions or judgement when they perform prosocial behaviour – a feminine action. This, however, presents a problem for boys. Prosocial behaviour is a moral behaviour guided by moral rules – such as those governing right and wrong (Smetana, 2006; Turiel, 1998). Parents and teachers will therefore encourage prosocial behaviour, as this is good, and children themselves, as they develop an understanding of moral rules and their universality, may also be motivated to act prosocially. However, the social knowledge that children and adolescents have about prosocial behaviour and gender may affect how these actions are morally judged in childhood and adolescence. Boys in particular may experience ambiguity between moral

obligations (to be a good boy) and social obligations (to be a good example *of* a boy). Chapter 5 investigates this possibility.

- (iii) Does the gender-typing of prosocial behaviour change across development?

As outlined in the first section of this chapter (2.1), prosocial behaviour changes across childhood, adolescence and early adulthood. Not only does prosocial behaviour change in its nature, but it also changes in its motivation, as does the reasoning behind these actions. Gender knowledge also changes across development, not only increasing steadily, but fluctuating in intensity and salience. As such, the way gender relates to prosocial behaviour may change, and the gender knowledge about prosocial behaviour may become increasingly or decreasingly salient along with other gender knowledge and stereotypes. Therefore, there are a number of key developmental questions for this thesis. For example, is the gender-typing of prosocial behaviour particularly strong at times when gender stereotypes are more intense or are consolidating, such as early adolescence (Galambos et al., 1990; Hill & Lynch, 1983)? Is prosocial behaviour always related strongly to girls? Or are there points in development when some prosocial behaviour is related to boys, as gender roles develop and intensify? And is this as boys seek to try and resolve the ambiguity they experience between moral and social pressures? These questions are investigated in Chapter 4, and also in Chapter 6 where both quantitative and qualitative approaches were employed.

- (iv) Do beliefs about gender and prosocial behaviour predict reports of prosocial actions?

It is important to know exactly what the relationship is between gender and prosocial behaviour, but a descriptive account of this association can only reveal so much. What is just as important to investigate is how gender beliefs relate to, and predict, prosocial behaviour. In other words, it is important to assess

how integral gender beliefs are in guiding prosocial behaviour, and whether these beliefs ‘close-off’ or limit the positive actions of both boys and girls. This is particularly important when measuring gender differences in prosocial behaviour, as researchers should be aware of the impact that gender knowledge may have on the behaviour of boys and girls. In addition to this, the impact of the pressure felt from peers needs to be investigated. As mentioned, peers clearly have an important role in reinforcing gender stereotypes and in shaping children’s gender knowledge. As such, the pressure felt from peers to be like or not be like the other gender may influence the prosocial behaviour they choose to perform. Boys may perform less prosocial behaviour (or prosocial behaviour that is deemed particularly feminine) due to the pressure from peers to not act like the other gender. Chapter 7 investigates how gender beliefs, as well as felt pressure, predict reports of prosocial behaviour.

These four research questions are important for two reasons. Firstly, gender stereotypes about prosocial behaviour may influence the design, conduct and response in studies on gender differences in prosocial behaviour. Results from those studies may further reinforce and perpetuate the view that prosocial behaviour is more likely of girls. This could be detrimental to effective positive social interaction, particularly in boys, if girls are encouraged to act prosocially more often than boys. Secondly, and particularly worrying, is that to be prosocial is a moral behaviour. Therefore, it should not be socially categorised or encouraged/ discouraged on the basis of gender. It should instead be guided by moral rules and conformity to the moral notions of wrongness and rightness. Therefore it is particularly important to find out exactly how prosocial behaviour relates to gender, so as to encourage universal prosociality, unmarred by social expectancy.

Chapter 3: An Exploration of Previous Methodological Approaches to Studying Gender Differences in Prosocial Behaviour and Those Used in this Thesis

Chapter 2 detailed extensive research on gender differences in prosocial behaviour; with most studies showing that girls are ‘more’ prosocial than boys. This is both when peers, parents and teachers give reports of behaviour, and when boys and girls are observed by impartial parties (Eisenberg & Fabes, 1998; Eisenberg et al., 2007). This amounted evidence has provided the basis for a prosocial gender stereotype, and the widely accepted idea that girls are more prosocial than boys (Eisenberg et al., 2007; Eisenberg & Mussen, 1989). As such, it is also assumed that girls are nicer than boys (Serbin et al., 1993) and are better behaved (Hastings et al., 2007). The review focussed heavily on the possible impact of gender-typing and gender stereotypes (such as those above) on the prosocial behaviour of boys and girls, and how they might help explain differences in their behaviour.

As such, despite the conclusions of studies on gender differences in prosocial behaviour appearing definitive, in recent years closer examination of methodological approaches in this area has led researchers to question whether girls are indeed more prosocial than boys. Namely, researchers appear to have mostly overlooked the issue of how prosocial behaviour is *judged* in terms of gender. Researchers thus far have largely failed to acknowledge, or account for, the influence of the beliefs, stereotypes, and norms that children, adolescents, and adults may hold about prosocial behaviour. This chapter explores the various methodological approaches used in studies investigating gender differences in prosocial behaviour and assesses their strengths and weaknesses. It divides

research into three categories: observational studies, self- and other-report studies, and judgement studies. As will become clear, most research has focussed on the former two categories, and it is important to assess these approaches to identify patterns and problems. This chapter also provides an outline and explanation for the broad approaches used in this thesis, to frame how the methods used are based on established practices, as well as to try and improve on limitations of previous research (or lack thereof).

3.1 Previous Research

3.1.1 Method of Measurement

3.1.1.1 Observational Studies of Prosocial Behaviour

When establishing whether differences exist between the levels of behaviour by two groups, observing the behaviour as performed by each group and comparing those observations is generally regarded as a highly valid approach (Babbie, 2012). As such, observational studies typically involve an impartial observer (usually a researcher) monitoring and coding behaviours, with those codes translating to a quantified amount of that behaviour performed. Observational research can either take place in a naturalistic or laboratory environment. Naturalistic environments are those which are not created or manipulated by the researcher, and represent scenarios in which the behaviours being monitored are performed in their most realistic settings. Laboratory environments are created and manipulated by the researcher, usually to mimic a natural environment, but allow for more control by the researcher of extraneous factors. This advantage withstanding, naturalistic environments are generally regarded as the most desired form of observational study, as they represent best the scenarios in which the monitored behaviour is likely to take place (Babbie, 2012). In prosocial behaviour research, naturalistic environments commonly used are school classrooms, school playgrounds, or homes. Laboratory environments

usually involve a simulated home environment, where a researcher will create a situation that will prompt the desired behaviour. For example, a researcher may pretend that they cannot reach an object that the participant can, and record whether the participant helps or not.

Observational studies are ideal for assessing differences in behaviour as they involve watching actual behaviours as they occur. Behaviours take place in everyday scenarios and give the most accurate representation of the frequencies of these behaviours. In this sense, the factors and variables that are present when these behaviours are performed, whatever these may be, are those most likely present when these behaviours are performed on a day to day basis. Observational studies therefore provide the grounds for the most reliable conclusions about behaviour to be drawn and are therefore preferred amongst researchers in general, and in the area of prosocial behaviour research.

However, whilst these methods are considered the most accurate for assessing frequency of behaviour and differences between the behaviour of groups, this approach is not without significant drawbacks. Firstly, even in naturalistic observations the presence of a researcher/observer who, for ethical reasons, will have been made known to the participants (even if this does not involve explaining the behaviours that are being observed specifically) may influence behaviour. This is particularly true with adolescent participants who alter their behaviour to a greater extent than children in the presence of adults (Bergin, Talley, & Hamer, 2003). With reference to prosocial behaviour research, researcher effects can result in both increased and decreased levels of behaviours. As participants know they are being watched, they may wish to conform to what they believe is the 'correct' way to behave. This is an important consideration for prosocial behaviour research as the moral pressures associated with performing prosocial behaviour are likely to increase in intensity in the presence of an unfamiliar adult, thus resulting in higher levels of prosocial behaviour. Conversely, and especially in adolescents, prosociality may decrease, or simply change in the presence of adults just because they are there (Bergin et al., 2003).

Whilst observational studies are deemed the most reliable, a fundamental issue is that not all behaviours performed will be coded. Missing behaviours performed by participants is usually down to either human error or the type of behaviour itself. Human error is unavoidable but is controlled by researchers as much as possible, for example by using multiple coders and cross referencing codes from different observers. However, the type of behaviour, especially with regards to prosocial behaviour research, can be a problem. Many prosocial behaviours, like helping, may appear easy to identify (for example, someone may drop a book and a child may help by picking it up), but may, in some forms, be hard to observe (for example, a child recognising that a book has been misplaced and returning that book to its rightful location). Other behaviours are inherently much harder to detect, due to their relational rather than physical/direct nature. For example, providing emotional support or comfort can be subtle. This problem is most easily highlighted using antisocial behaviour literature as an example. Direct antisocial behaviours (such as hitting or kicking) are much easier to identify than indirect antisocial behaviours (such as exclusion from social groups) (Card et al., 2008). This may have helped to exaggerate the finding that boys are more antisocial than girls, as 'boy' behaviours are much easier to code. With regards to prosocial behaviour, if girls perform more of the behaviours that are easier to detect, they may end up being 'over-represented' in coding patterns.

Further to considerations regarding the coding of behaviours, observational studies also have significant practical restrictions. The principle concern is that they are time consuming, as participants usually have to be observed a number of times (each of significant length) to obtain the most accurate measure of behaviour possible. As studies usually involve a number of observers coding behaviours at each observation, studies of this type are often harder to organise and implement, especially in busy classrooms and homes, particularly in comparison to questionnaire studies that employ self- and other-reports (discussed in section 3.1.1.2). Due to these considerations, whilst observational studies are often desired by researchers investigating behavioural

differences, they are often discounted due to practical considerations in favour of quicker methods. They do however constitute the majority of studies investigating gender differences in prosocial behaviour (Eisenberg & Fabes, 1998; Radke-Yarrow et al., 1983). This would suggest that girls may in fact perform more prosocial behaviours than boys. However results may still be skewed by self-report studies (discussed below), and other methodological considerations such as behaviours used (see section 3.1.2.1), and ages used (see section 3.1.2.2).

3.1.1.2 Self- and Other-report Studies of Prosocial Behaviour

As mentioned above, observational studies are the most ideal way to investigate gender differences in prosocial behaviour. However, this approach is not always practical, especially when working with institutions such as schools that are often seeking to minimise disruption to classroom activities and to children's learning. Questionnaires are often used in lieu of observational methods when the practical demands are too great. These studies use questions *about* actions; therefore still providing information about behaviour, without an observer having to witness participants first hand. These questions usually involve reporting on one's own behaviour (self-reports) or the behaviour of others (other-reports). Groups of people commonly chosen to report on the behaviour of children are those that are thought to have experience and previous interactions with said children. These groups are: peers (usually classmates), parents, and teachers. In research into gender differences in prosocial behaviour, reports about boys' and girls' actions are compared to ascertain whether one group might perform more of that behaviour than the other.

Questionnaire studies typically involve collection of data on a much greater scale than observational studies. Due to the ease with which a questionnaire can be distributed and completed, data collection is often much quicker, and is achieved at much lower cost. For example, in an observational study, a select group of 30 children in one class may each be observed by a

researcher for five observations lasting 30 minutes. This therefore involves 75 hours of research time for 30 participants. However, if questionnaires are distributed to all the classes within an institution, we are likely to gain data for many more children in a fraction of the time. It is therefore a preferred method for researchers who have pressure from schools to minimally disrupt classroom and school proceedings. This is an important consideration for any researcher, as the relationship between researchers and institutions (such as schools) is vital for on-going research. As such, this was one of the main considerations when choosing the methods employed in this thesis.

Whilst observational studies are regarded as the most accurate measure of behaviour, it can be argued that these types of studies only gain a brief insight into children's actions, as it is impractical and unethical to continuously monitor children's behaviour. It can therefore be argued that self-report questions allow children to report most accurately on their behaviour, as they are most knowledgeable about what behaviours they perform. In this sense, they are able to report on their own behaviour based both on their memories of specific behaviours, as well as broader patterns of behaviours that might be missed in brief observations. Furthermore, teachers and parents arguably spend much more time with children than researchers, and are therefore also well placed to report on children's specific behaviours as well as broad behavioural patterns. This is particularly important with regards to prosocial behaviour, as these acts incorporate a wide range of behaviours including many subtle variations.

However, there are also considerable limitations to this approach that must be considered, despite the practical benefits. The most important of these is that self- and other-reports are more susceptible to bias. In other words, participants answering questionnaires are able to alter their answers based on how they feel they *should* be answering the questions. This is in contrast to observational studies, where participants (despite usually being aware an observer is present) are seen performing spontaneous behaviours that are less controlled. In this respect, answers that participants give to self- and other-report questions could be subject

to biases such as stereotype influence, and other social knowledge about norms. Thus, they may report what they themselves and others are *expected* to do in line with stereotypes. The stereotype that girls are nicer than boys is widely known (Eisenberg et al., 2007; Serbin et al., 1993). When children themselves, and others such as peers, parents, and teachers, are reporting on the prosocial behaviour of boys and girls, the reports they give may be subject to this knowledge. Reports may therefore not be wholly representative of actual levels of behaviours, but more reflective of stereotypes.

The meta-analysis by Fabes and Eisenberg (1996) highlighted how gender differences in prosocial behaviour vary based on the methodological approach taken (as discussed in Chapter 2). The weighted effect size in observational studies was 0.13; suggesting girls perform more prosocial behaviour than boys when observed by researchers, but this difference is small. However, in self-report studies the weighted effect size was 0.28, and in other-report studies this was 0.33. This shows that when children report on their own behaviour and when others, such as teachers, parents and peers, report on behaviour, they rate that girls are much more prosocial than boys. If the prosocial behaviour by boys and girls differs, it could be expected that the same magnitude of difference would manifest across various measures but this is not the case. When participants are reporting on behaviours, other factors, such as the prosocial gender stereotype and knowledge about how boys and girls *should* be acting, may influence these reports. For example, peers, parents, and teachers have been shown to *perceive* girls as more prosocial than behavioural data indicates (Bernzweig, Eisenberg, & Fabes, 1993; Bond & Phillips, 1971; Shigetomi et al., 1981). The associations between prosocial behaviour and girls could contribute to exaggerated gender differences in report studies.

It is important to acknowledge the possible influence of prosocial gender stereotypes and norms in report studies, as they constitute a significant part of the research body on gender differences in prosocial behaviour. These studies therefore contribute to the conclusions drawn about gender differences, and may

help to further perpetuate and reinforce the stereotypes on which the results themselves may be based. In this respect, gender differences in prosocial behaviour may be somewhat grounded in fact (as indicated by observational studies) but they may also be largely artifactual – or man-made. Through the 3-stage process of: stereotypes helping to define study design, stereotypes influencing responses in studies, and results from studies influencing stereotypes, gender differences in prosocial behaviour may have become a self-fulfilling prophecy. It has been suggested that children may self-socialise their prosocial tendencies by having their thoughts, emotions, gender norms, and behavioural scripts conform to peers', parents' and teachers' expectations (Maccoby, 1998). This is particularly important considering that prosocial behaviours have a moral quality and should be encouraged regardless of gender.

3.1.1.3 Judgement Studies of Prosocial Behaviour

Surprisingly, despite the important influence that gender norms and beliefs might have on results of prosocial behaviour studies, little research has investigated exactly what attitudes children and adolescents have about prosocial behaviour and gender. Most research has focussed on children and adolescents moral reasoning about prosocial behaviour. As described in the previous chapter, most prosocial moral judgement studies have examined children's and adolescents' reasoning behind the decisions they make in prosocial moral dilemmas (Eisenberg-Berg, 1979; Eisenberg, Carlo, et al., 1995; Eisenberg et al., 1983; Eisenberg et al., 1991; Eisenberg et al., 1987; Eisenberg, Zhou, & Koller, 2001). In these scenarios, children and adolescents are asked which course of action they will take following a prosocial dilemma. For example, a story is told about a child who must choose between whether to give swimming lessons to disabled children or join the school softball team, they cannot do both. Participants must choose which course of action the child should take; they must then rate how important different factors were in making their decision, with each

of these factors representing a different form of reasoning. These studies are important for investigating a) how children might act in similar scenarios and b) the reasoning that might inform these decisions. However, they tell us little about the moral judgement of the ‘rightness’ or ‘wrongness’ of prosocial behaviours, or the social knowledge children may have about how prosocial behaviour is associated with boys or girls as a gender group.

Other research investigating judgements about prosocial behaviour have also approached from a moral angle. For example Jackson and Tisak (2001) showed that children aged 7-12 years reported that: it is wrong to fail to perform prosocial behaviours, they would feel bad if they do not perform prosocial behaviours, and that peers would judge them negatively if they did not perform prosocial behaviours. Again however, this study did not include any focus on gender or on the impact of gender on the judgements made. It is therefore clear that despite the possible, and probable, importance of children’s social knowledge about gender and prosocial behaviour, little research has investigated this particular question. This is hardly surprising as prosocial behaviour is identified by children at a very young age as ‘right’ (Vaish, Missana, & Tomasello, 2011), and is a moral behaviour – guided by moral rules. However it is important to investigate whether prosocial behaviour is socially categorised by gender or is influenced by social knowledge, as this may affect judgements about, as well as reports of, prosocial behaviour. This thesis attempts to address some of these issues as outlined below in section 3.2.

3.1.2 Other Methodological Considerations

3.1.2.1 Behaviours Used in Prosocial Behaviour Studies

The sections above highlighted how influential the selection of methodological approach can be on the results of studies investigating gender differences in prosocial behaviour. What is equally important is how researchers define prosocial behaviour and the actions they choose to measure within these

studies – observational, report or otherwise. Often studies measuring differences between boys' and girls' specific prosocial behaviours are grouped together under the umbrella term of 'gender differences in prosocial behaviour'. This results in the claim of 'gender differences in prosocial behaviour' losing much of its meaning, as prosocial behaviour incorporates so many different actions. Instead, what researchers are identifying are gender differences in levels of *specific* behaviours and not an overall tendency for boys and girls to be more or less prosocial. The choice of prosocial behaviours is crucial, particularly in report studies, as some specific behaviours may be associated with boys and girls differentially. Therefore when these behaviours are included under the broader term of prosocial behaviour, gender differences may be skewed by the findings for the original behaviours. This section will explore this idea in more depth.

In their seminal review of studies on gender differences in prosocial behaviour, Radke-Yarrow, Zahn-Waxler, and Chapman (1983) used 4 behavioural classifications. These were: 'comfort, sympathy, caregiving', 'help, aid', 'cooperation', and 'sharing'. 'Sharing', as a category, contained the largest amount of studies, with 'comfort, sympathy, caregiving' containing the least. These categories helped to lay the foundation for research in the area, as they cover a great number of variations of prosocial behaviour within those broad categories. Similarly to the study described above, different prevailing relationships emerged for gender differences in each behavioural category, but provided no clear patterns. Further to this, boys and girls sometimes performed more prosocial behaviour than their opposite-gender counter parts, and in many cases this was due to an interaction with another variable (such as age or treatment conditions). In this particular review, the authors conclude that they 'would hazard that there are differences between boys and girls in how and when and why they perform prosocial acts and that such qualitative differences are more revealing of the nature and nurture of sex differences in prosocial behaviour than are quantitative differences in frequency' (Radke-Yarrow et al., 1983, p.523).

In a more recent meta-analysis by Fabes and Eisenberg (1996) similar prosocial behaviour categories are used. They categorise the 272 studies used by behavioural type as follows: 'instrumental help', 'being kind/considerate', 'comforting', 'sharing/donating', and an 'aggregated index'. These categories are representative of behaviours measured in most studies investigating prosocial behaviour differences, and cover a wide range of variations in prosocial action. The effect size of gender differences in each of these categories indicates that girls are more prosocial than boys, but they do vary. For example, the effect size for studies measuring being 'kind/considerate' was much larger than that for measuring 'instrumental help' or 'sharing/donating'. This may be due to the different behaviours that are particularly expected from, or associated with, boys and girls. For example, being 'kind/considerate' may be more strongly associated with the female gender role, categorised broadly as more communal and empathic (Bakan, 1966). Interestingly, when study characteristics (for example methodology used) were controlled for, differences in effect sizes were dramatically reduced. The authors note that this could be because most studies that investigate differences in being 'kind/considerate' used report methods, and this could exaggerate the differences as participants report what they expect to see from girls (see section 3.1.1.2). This demonstrates how important behaviour type can be, particularly in conjunction with methodology used, in influencing the strength of gender differences in prosocial behaviour.

Even within observational studies (regarded as more objective and reliable) the behaviours chosen could still influence the magnitude and even direction of gender differences found. Zarbatany, Hartmann, Gelfand, and Vinciguerra (1985) argue that measures used to evaluate children's prosocial tendencies (observational, report, or otherwise) include a disproportionate number of sex-biased items favouring girls (items pertaining to activities associated more strongly with girls). Under-represented masculine items (e.g. getting a cat out of a tree) are more often acted by boys in observational studies and are reported by others as performed more by boys, whereas feminine and neutral items elicit

endorsements for girls. However, due to the disproportionate number of feminine items, variations in nominations by behaviour are often lost. This further shows the importance of the selection of behaviours by researchers, as the design of prosocial behaviour studies will ultimately guide the conclusions drawn. Moreover, the *nature* in which boys and girls are prosocial, including the behaviours they chose to perform, is possibly more important when assessing gender differences than comparing frequency of these behaviours, and of prosocial behaviour overall.

In studies using adults, researchers are beginning to acknowledge the importance of the qualitative differences in the prosocial behaviour of men and women over the quantitative frequencies. Eagly (2009) outlined how men and women may act prosocially to the same extent (in terms of frequency) but may chose different prosocial behaviours to perform based on how they reflect broader gender role characteristics. In this sense we can expect men to provide help or physical assistance more than girls, as this is characteristic of the male gender role, and the concepts such as chivalry and agency that help to define it. Eagly and Crowley (1986) indeed found that men actually helped more than women, particularly in situations involving instrumental and chivalrous assistance. Conversely, we can expect women to provide more emotional support or to comfort others more, as this is characteristic of the female gender role, and the greater emphasis on communality and relationships in this role. The duality of men and women's prosocial behaviour is highlighted in Becker and Eagly's (2004) examination of extreme prosocial behaviour – heroism. They found that men were overrepresented in some forms (acts that involved life-risking rescue) but in other heroic acts (such as organ donation, peace corps volunteers, holocaust rescuers) the percentage of women was equal to men, and in some cases higher. Gender roles may therefore provide a convincing framework to help explain gender differences in prosocial behaviour in adulthood (as discussed in Chapter 2); however this framework has not yet been applied to developmental prosocial

behaviour research despite evidence that behaviour type is key in predicting gender differences.

To this end, it may be prudent in prosocial behaviour research to focus on *how* boys and girls choose to act prosocially rather than *how much* they are prosocial. However, it would appear that the use of this approach has thus far been limited. Furthermore, the choice of behaviours in previous studies might have contributed to the results found that girls are more prosocial than boys. This is a particularly important consideration as different prosocial behaviours may be cognitively categorised as masculine or feminine, or something that ‘boys do’ or ‘girls do’ (as discussed in section 2.3.3.4). This may be particularly salient in adolescence, as discussed below (see section 3.1.2.2), when prosocial behaviour becomes more varied and complex (Bergin et al., 2003). Furthermore, if this cognitive categorisation does occur, it could be an over-representation of female-typed prosocial behaviours in research that further exaggerates gender differences in prosocial behaviour studies.

3.1.2.2 Ages Used in Prosocial Behaviour Studies

As well as the behaviours used in studies, the age of participants also appears to influence the magnitude of the gender differences between boys and girls. It is important to understand the relationship of age to both gender and prosocial behaviour, as children’s knowledge about both these concepts changes across development. With this, knowledge of how gender *relates* to prosocial behaviour, and associated norms and stereotypes, will also change and develop. This, in turn, means that studies conducted on different age groups may reflect different levels of influence of gender on prosocial behaviour (particularly in combination with the issues highlighted in the above sections).

In their meta-analysis, Fabes and Eisenberg (1996) separated studies by age (as they did for behaviour measured and method used). The 4 age categories used were: preschool (3-6 years), childhood (7-12 years), early adolescence (13-

15 years), and late adolescence (16-18 years). Gender differences in prosocial behaviour in each of these age groups were analysed by Fabes, Carlo, Kupanhoff and Laible (1999). Effect sizes for gender differences were smallest in early childhood (preschool) and childhood (.19 and .17 respectively), and increased dramatically in early and late adolescence (.28 and .35 respectively). These results suggest that in adolescence girls are much more prosocial than boys compared to childhood. Furthermore, in cross cultural studies on gender differences in prosocial behaviour, differences have mostly been found in older samples (Whiting & Edwards, 1988) .

Why do boys and girls differ more in their prosocial behaviour in adolescence compared to childhood? One explanation is that the intensification of the prosocial behaviour stereotype in early adolescence (Hill & Lynch, 1983) is responsible for differing reports of prosocial behaviour by boys and girls (not underpinned by behavioural differences). Alternatively, the prosocial behaviour of adolescents could be changing in response to intensification of stereotypes. Specifically, as pubertal hormones change and a heightened interest in dating occurs, both boys and girls may increasingly act in line with gender stereotypes in order to appear more attractive to the opposite sex (as suggested by Fabes et al., 1999). Either way, the prosocial gender stereotype may be playing a key role in either how the behaviours of adolescent boys and girls are perceived, or in actually modifying adolescents' behaviour. These age differences could also be confounded by study method, behaviours used, and an under-representation of adolescent studies in the analysis (Eisenberg et al., 2007; Fabes et al., 1999). To further complicate matters, prosocial behaviour has been shown to become increasingly complex in adolescence (Bergin et al., 2003). Adolescents, compared to children, identify a much broader range of prosocial behaviours that are possible. Further to this, an increasing number of motivations to perform prosocial behaviours and situational variables are also identified (Bar-Tal et al., 1980). However, little note is made of this in much of the literature on the subject, and

often methods (and in particular behaviours) utilised are similar for children and adolescents.

Whilst the issues surrounding the interactions between gender, prosocial behaviour, and age are far from straightforward, it is clear that in early adolescence participants understand gender to relate to prosocial behaviour in a different way to childhood. Whether this is reporting gender differences in prosocial behaviour differently or performing different levels of prosocial behaviour when observed. Either way, the identification of oneself as a boy or girl and the relation of that identification to the performance of prosocial acts appears to be more salient in adolescence than childhood. As with methods used and behaviours measured, it is important to take age of participants into account when assessing and analysing differences in prosocial behaviour.

3.1.2.3 The Recipient of Prosocial Behaviour

Whilst not a focus within this thesis, it is worth briefly mentioning the effect that the recipient of prosocial behaviour has on observed and reported prosocial behaviour, as well as judgements of this behaviour. For example, factors such as relationship to the recipient (a stranger vs. a friend), audience effects (is this in front of a crowd/audience or a one-to-one interaction), and recipient characteristics (such as gender or ethnicity) all influence the likelihood and nature of prosocial behaviour (Eisenberg et al., 2007). Taking relationship to recipient as an example, men have been shown to show more helping behaviour towards strangers than women (Eagly & Crowley, 1986), with women focussing their helping behaviour more towards close friends. Coincidentally, scenarios that require helping behaviours that involve more risk (and are more aligned with the male gender role) are often more likely to involve a recipient who is a stranger (Eagly & Crowley, 1986). Thus, in scenarios such as this, the factors involving recipient characteristics are likely to interact with gender, and result in differing levels of prosocial behaviour from men and women. As stated, factors concerning

the recipient of behaviour are not explored in this thesis, as the focus are on attitudes about general prosocial behaviours, rather than those directed towards specific individuals. However, it is important to be aware that such factors do influence prosocial behaviour performance, particularly when considering gender.

3.1.3 Conclusion

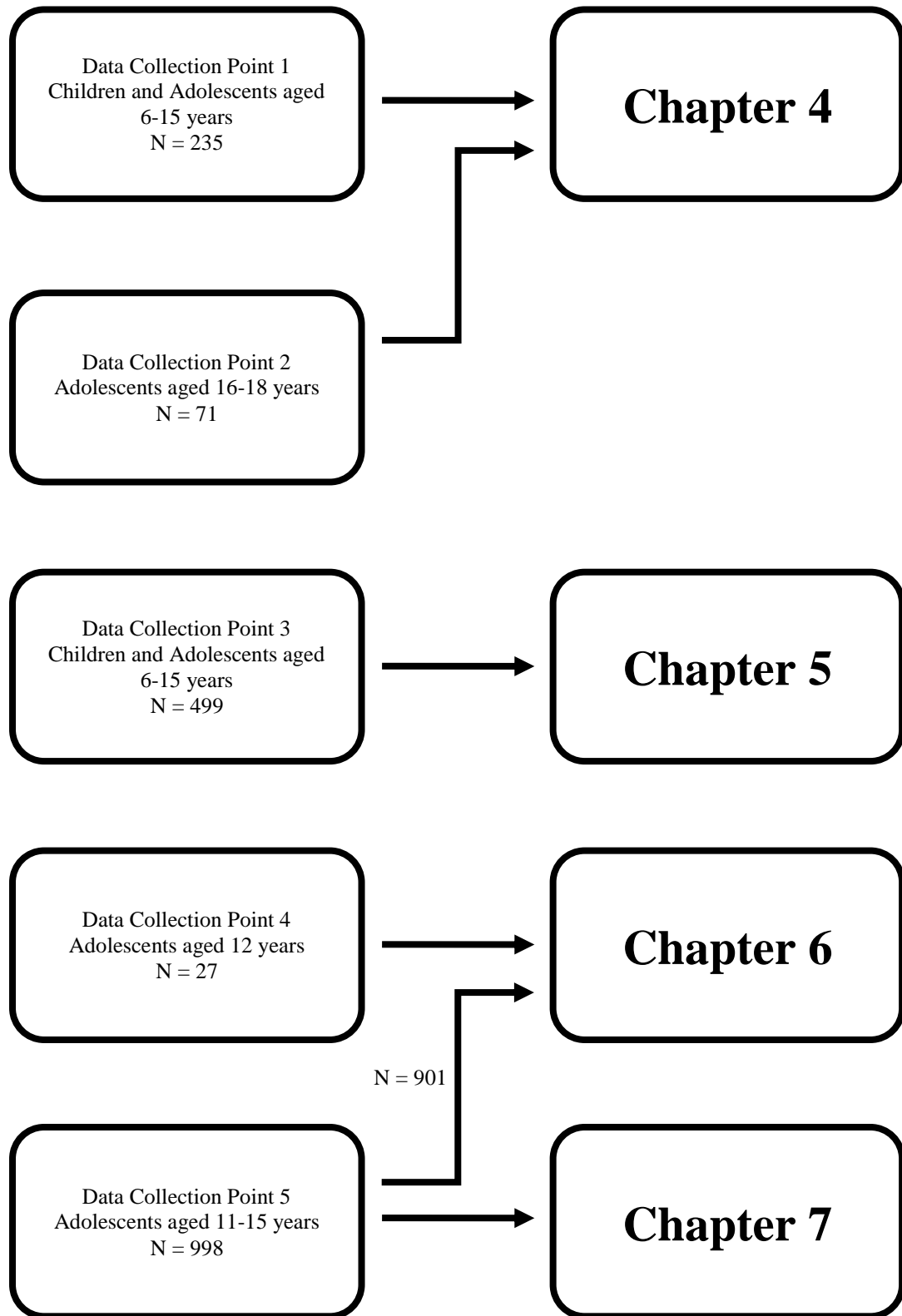
In the above sections, limitations of previous research on gender differences in prosocial behaviour were identified. These limitations included problems with study design (observational vs. self- and other-reports vs. judgements), behaviours used, and age of sample. These issues have been highlighted for two reasons. Firstly, it is important to be aware of how the aforementioned factors influence not only the design and conduct of studies on this topic, but also the data obtained and interpretation of these data. There is a growing consensus in the field that gender differences in prosocial behaviour: may be largely artifactual (Eisenberg & Mussen, 1989); are more representations of prosocial gender stereotypes and how children *should* act rather than how they actually are acting (Eisenberg et al., 2007); are greatly affected by behaviours and items measured (Zarbatany et al., 1985); and should be investigated from the perspective of gaining insight into *how* rather than *how much* boys and girls are prosocial (Dovidio et al., 2006; Eisenberg et al., 2007; Radke-Yarrow et al., 1983). The issues outlined above highlight how fragile the ‘consistent’ findings of gender differences in prosocial behaviour are and how new approaches are needed.

Secondly, the approaches taken in this thesis were chosen with these considerations in mind. Specific methodological choices, such as behaviours and ages used, are mainly discussed in detail in empirical chapters. However, in the next section, general approaches chosen will be explained and justified in reference to the conclusions drawn above regarding previous research. As with all research, the studies presented in this thesis were conducted under practical

restraints and in conjunction with schools, which often presents substantial challenges. Therefore, in places, the research conducted was unable to advance and improve upon some of the methods outlined above. However, the next section will highlight how (where possible) certain methodological approaches were chosen with a view to improving on previous research. The main focus of this thesis and the methods used therein was to provide insight into the gender norms and attitudes that children and adolescents have about prosocial behaviour. This was in order to investigate the possible influence these beliefs might have on results from prosocial behaviour studies.

3.2 Methods in the Thesis

It is often hard to tell whether reports and observations of gender differences in prosocial behaviour are based in reality. In other words, it is difficult to separate the influence of gender stereotypes about prosocial behaviours parents, peers, teachers, and even impartial observers *expect* to see from boys and girls, from the actual levels of prosocial behaviours performed by children. Because of this problem, it is difficult to place any concrete faith in the conclusions some of the studies above draw – that girls are more prosocial than boys. Further to this, concerns regarding methods used, behaviours used, and age groups studied were all raised. As such, the quantitative studies conducted in this thesis aimed to address some of these issues, namely to explore attitudes and judgements about prosocial behaviour, rather than measuring the behaviours themselves. This was in order to provide insight into the possible influence of prosocial gender norms and beliefs on prosocial behaviour research. A flow diagram of data collection in this thesis is shown below.

Figure 3.1 A Flow Diagram of Data Collection in this Thesis

3.2.1 General Quantitative Methods

The overall approach in this thesis was quantitative. The methods used involved measuring: children and adolescents' gender-typing of prosocial behaviours (Chapters 4, 6, and 7), children's and adolescents' moral judgements about prosocial behaviours (Chapter 5), adolescents' gender typicality ratings of prosocial behaviours (Chapter 7), and adolescents' reports of their own prosocial behaviours (Chapter 7). Across this range of studies, only one measuring technique was used: the Likert Scale.

3.2.1.1 *The Likert Scale*

In every empirical chapter of this thesis, the Likert scale was employed to measure attitudes about prosocial behaviour (and once to measure reports of behaviour). Likert scales generally consist of five items, produce interval data, and are commonly used to measure attitudes and reports of behaviour (Brown, 2011). As such, parametric and descriptive tests, such as comparing means and standard deviations, are commonly used and accepted approaches for analysing Likert scale data (Carifio & Perla, 2007). Most studies in this thesis employ a standard 5-point Likert Scale (Chapter 5 – to measure moral judgements, Chapter 6 – to measure masculinity and femininity of behaviours, and Chapter 7 – to measure gender typical prosocial beliefs and behaviours). These data were treated as continuous and were analysed using parametric tests.

In Chapter 4 however, a smaller 3-point scale was employed. Generally, Likert scales should not be reduced to fewer than five items (Brown, 2011). However, in Chapter 4, the aim was to investigate whether children and adolescents associated prosocial behaviours with boys and girls as a gender group, as a choice (similar to a yes or no decision). Therefore, initially a categorical measure was considered with only two options, boys or girls. However, as behaviours may not be cleanly associated with either gender group, an option of 'either' was also provided. This created a 3-point *scale*, rather than a

straightforward two-option categorical *choice*. As such, it was decided to treat these data as continuous (similar to 5-point scale data) rather than categorical. Upon reflection (mid data collection for this thesis), it was decided that a 3-point scale, whilst not inaccurate, lacked the strength of a 5-point scale and this was therefore adapted in Chapter 6 to measure behaviour association with boys and girls. Future research measuring the gender-typing of prosocial behaviour should aim to employ a 5-point scale, similar to Chapter 6. However, the results from the 3-point scale used in this thesis are arguably robust and consistent.

3.2.1.2 Prosocial Behaviour Choice

When investigating the gender-typing of prosocial behaviours in this thesis, the decision on which behaviours to use was largely informed by previous research. As such, in Chapters 4 and 5, the behaviours helping, sharing, giving, and comforting were chosen. This decision was based on the broad labels used by Fabes and Eisenberg (1996) and Radke-Yarrow et al. (2003). These labels cover a large number of prosocial behaviour, apart from those based on group actions (inclusion). These behaviours were used for both children and adolescents, to ensure methodological congruency across all ages.

After these initial studies on gender-typing were conducted, and it became clear that adolescence was a key period for the influence of gender on prosocial behaviour, the decision was made to expand the number of prosocial behaviours used in Chapter 6. This was in conjunction with the decision to employ exploratory qualitative methods for adolescents (discussed in section 3.2.2). This is due to the fact that prosocial behaviour becomes increasingly complex with age (Eisenberg et al., 2007) and that in previous studies adolescents in focus group settings have identified a wide and varied range of prosocial behaviours, beyond the broad categories mentioned above (Bergin et al., 2003). Therefore, when conducting studies solely on adolescents (and since there was no need to keep behaviours similar to those utilised with children) a broader range of behaviours

was chosen. In this sense, studies in Chapters 6 and 7 improve upon previous studies that use a very limited range of behaviours when studying adolescents. It is clear in Chapters 6 and 7 that the inclusion of a broader range of behaviours was crucial for capturing specific gender-behaviour relationships in adolescence. In a similar vein, it may be crucial when conducting research on gender differences in prosocial behaviour to treat childhood and adolescent populations differently, in the same way that those populations view prosocial behaviour itself differently.

3.2.1.3 Age Ranges Used

The considerations taken into account in this thesis with regards to sample age were simple. In the initial studies conducted, as broad an age range as possible was selected, including children from age 5 in childhood, to age 18 in late adolescence. This was to adequately address our research question (of investigating the gender-typing of prosocial behaviour) at all stages of development. This was particularly important in this thesis, as gender knowledge changes dramatically across development (Martin & Ruble, 2009), and could relate to prosocial behaviour differentially across this age range. Using such a broad range also allowed the pinpointing of specific developmental patterns in attitudes towards gender and prosocial behaviour. However, to achieve this, cross-sectional designs were used for all studies. This was unavoidable due to time constraints and practical considerations. However the inclusion of multiple schools (where possible) and robust sample sizes has helped to add validity to results presented.

As the research program progressed it was clear that a more focused approach was needed in terms of age of sample, as early adolescence was identified as a key developmental phase for prosocial behaviour gender-typing and the moral judgement of prosocial behaviours. In this respect, the transition from a broad to specific age range is justified through the results themselves.

3.2.1.4 Self-reports of Behaviours

As stated in section 3.1.2 studies using self- and other-reports of children's and adolescents' prosocial behaviours show the largest gender differences, compared to those that use observational methods. This may be because stereotypes and gender norms about prosocial behaviour influence reports. For this reason, combined with the approach of this thesis of investigating attitudes about prosocial behaviour rather than behaviours themselves, report questions were largely avoided. They were however included in Chapter 7 as it was a specific aim in Study 5 to investigate whether certain prosocial behaviour beliefs predicted prosocial behaviour reports – therefore inclusion was necessary. However, as is stated in Chapter 7, results should be viewed and interpreted with caution due to the use of self-reports.

3.2.2 General Qualitative Methods

The results from the studies in Chapters 4 and 5 both suggested that early adolescence presents a key development phase for the relationship between gender and prosocial behaviour. This is both in terms of how children and adolescents gender-type prosocial behaviours, as well as how they morally judge these behaviours. At that point in the research program, it was decided that whilst quantitative research was providing good descriptive data, it was explaining little about the relationship being described. Chapters 4 and 5 give some indication of what the relationship might be between gender and prosocial behaviour, but nothing about the underlying processes that informs and maintains this relationship. It was therefore decided that a qualitative approach be employed at this point. This was in order to: confirm the existence of the relationship shown in Chapters 4 and 5; explore the underlying processes involved in this relationship; and inform the next stages of the research program.

To that end focus groups were used in Chapter 6 to obtain rich and detailed qualitative data regarding how adolescents themselves view the

relationship between gender and prosocial behaviour. The reasons for using focus groups are discussed in greater depth in Chapter 6 of this thesis. Broadly, focus groups allow participants to speak for themselves, in interaction with each other, based on their own experiences and in their own words (Patton, 1990). They are therefore ideal for exploratory research. Focus groups were also chosen as this study was (a) about prosocial behaviour, and (b) used adolescents. Bergin et al. (2003) highlight why focus groups would be useful in these circumstances as: individual prosocial behaviours have a low frequency of occurrence; prosocial acts are often subtle, hard to detect, and involve a number of variables that change performance likelihood; and the presence of adults undoubtedly changes adolescents' behaviours, often rendering observations invalid. Due to these reasons, and the exploratory nature of this study, focus groups provided the most accurate way to investigate adolescents' reasoning about prosocial behaviour and gender.

Due to the more subjective nature of qualitative research, the specific format of the study presented in Chapter 6 was based partly on: previous focus group research in the area (such as Bergin et al., 2003); broad format recommendations from research manuals (Babbie, 2012); and on novel design by the researcher to achieve the most from group discussions. The specifics of the study design are discussed in more detail in Chapter 6. Briefly, the stages of analysis used were based heavily on recommendations from qualitative researchers in the field for thematic analysis (Braun & Clarke, 2006; Guest, MacQueen, & Namey, 2012).

3.3 Summary

This chapter served two purposes. Firstly, to highlight limitations of existing research on gender differences in prosocial behaviour and secondly, to justify the methods chosen in research presented in this thesis both independently and in reference to improving upon past research. Specifically, the primary aim of

this thesis was not to take specific research examples and improve upon them. Rather, it was to conduct a research program that shed light on a specific factor (namely gender norms about prosocial behaviour) that may influence the design of, conduct of, and response to studies on prosocial gender differences. Hopefully it should be clear that, where possible, the methodological approaches in this thesis were chosen to balance the practical limitations of developmental research whilst improving upon issues raised in section 3.1.

Chapter 4: Children and Adolescents Think that Girls are more Likely to Perform Prosocial Behaviour than Boys

Chapter 2 outlined a significant body of research showing that girls are more prosocial than boys, both when judged by peers, parents and teachers, and when observed by researchers (Eisenberg et al., 2007; Fabes & Eisenberg, 1996).

Within the literature review, gender-typing and gender stereotypes were used as a framework to explain gender differences in prosocial behaviour, highlighting that there is good evidence that they may be at least partially responsible for these differences. Also highlighted (as well as in Chapter 3) was the important observation that gender stereotypes about prosocial behaviour may permeate research at all levels (both in design, conduct and response), and serve to maintain and reinforce said stereotypes.

Many authors have acknowledged the existence of a prosocial gender stereotype (Eisenberg et al., 2007; Eisenberg & Mussen, 1989) and the broader belief that girls are ‘nicer’ than boys (Serbin et al., 1993). This belief has formed part of gender role knowledge for over 200 years, as shown by the mother goose nursery rhyme ‘What are little boys made of’ dating to the early 19th century (Opie & Opie, 1997). The rhyme states that girls are made of ‘sugar and spice and all things nice’ suggesting that girls are ‘sweeter’ than boys and have an overall better quality of character. However, little research has focused on investigating how children and adolescents associate specific prosocial *behaviours* (particularly those used in research) with gender. Essentially, the idea that girls are more prosocial than boys has rather been assumed. It is important to systematically investigate (across age groups) whether children and adolescents associate prosocial behaviour with boys or girls as a gender group – or whether they gender-type prosocial behaviour. If gender-typing of prosocial behaviour does

occur, this may influence reports of prosocial behaviour (by parents, peers, and teachers), as well as how researchers design studies. In this sense, the prosocial gender stereotype cannot be accepted as simply being a reflection of the results from empirical studies, as these may have been influenced and skewed by the stereotype itself. The present study aims to investigate how children and adolescents associate prosocial behaviour with gender, by asking them whether they judge boys or girls as more likely to perform said behaviours. This will give a clear indication of the extent to which children and adolescents believe prosocial behaviour is a 'male' or 'female' thing to do by asking who they *expect* this behaviour from.

4.1 Introduction

Many studies have been conducted on how children allocate personality characteristics to boys and girls (Powlishta, 1995, 2000), as well as toys, jobs, and behaviours (Sinno & Killen, 2009). These studies show that children allocate characteristics such as *affectionate* and *gentle* to girls, and *strong* and *dominant* to boys at age 5 (Best et al., 1977; Williams, Bennett, & Best, 1975). As children get older these allocations become increasingly complex, with children aged 8 years allocating characteristics such as *emotional* and *soft-hearted* to girls, and *cruel*, *independent*, and *coarse* to boys (see again, Best et al., 1977; Williams et al., 1975). There appears to be a clear separation between the types of characteristics allocated, with girls receiving generally more positive, relational and submissive allocations, and boys receiving more independent and arguably more negative allocations.

Due to the characteristics allocated to girls, they may be thought of as more prosocial; especially because many prosocial acts encourage and utilise qualities such as awareness of the needs and feelings of others, as well as attention to emotional states. These qualities may also contribute to the stereotypes that girls are more empathic than boys (Lennon & Eisenberg, 1987) and are generally

better behaved (Hastings et al., 2007). However, it is important to investigate whether the allocation of specific prosocial behaviours follows this pattern, to establish if children gender-type prosociality as they do for many other behaviours and attributes. If children and adolescents do gender-type prosocial behaviour, it will form part of their gender schema, and allow them to make predictions about others future behaviour based on this knowledge, as suggested by gender schema theory (Bem, 1981; Martin & Halverson, 1981). It will also inform the judgements they make about peers performing these behaviours, based on whether these are seen as congruent or incongruent with the schema they hold.

Studies that use sociometric methods (such as nomination studies) give some insight into who boys and girls view as more prosocial. These studies typically ask children who is the most prosocial child or children (out of all their classmates) and show that children and adolescents aged 9-14 years nominate more girls as prosocial classmates than boys (Veenstra et al., 2008; Warden et al., 2003; Warden & MacKinnon, 2003; Wentzel, 2002; Wentzel et al., 2007). These results could represent reports of actual behaviour and be an accurate representation of girls being more prosocial than boys. However, one danger with such an approach is that nominations could also be a representation of a gender norm that prosocial behaviour is a 'girl' thing to do (Eisenberg et al., 2007), and that girls are 'nicer' than boys (Serbin et al., 1993). These beliefs may either exaggerate actual differences between boys and girls, or they may be held despite there being few behavioural differences at all. By asking 'who is most prosocial?' studies like these do not provide clear evidence for the existence of actual differences or gender beliefs. Observational studies have suggested that girls show more prosocial behaviour than boys (although the effect sizes are small, see Fabes & Eisenberg, 1996), but little research has addressed the competing explanation, that children may hold gender norms about prosocial behaviour. It is important to investigate whether prosocial behaviour is gender-typed (or more specifically female-typed), when asking about boys and girls as a gender *group* (rather than specific classmates). Gender norm knowledge helps children predict future

behaviours and informs the judgements they make towards peers upon performance of these behaviours (Blakemore, 2003; Martin, 1989). As such, if prosocial behaviour is gender-typed, this will affect both how children react to prosocial behaviour performed by boys and girls, as well as their reports of said behaviour.

4.1.1 Study Aims

This study investigated whether children and adolescents associate prosocial behaviours with either girls or boys (or with neither/both). It is unique in two important ways. Firstly, this study asked about gender likelihood (i.e., who is more likely to perform prosocial behaviour), to determine the association held with a gender group (i.e., boys or girls). This, arguably, is a more direct assessment of children's and adolescents' explicit gender associations with prosociality, as children are being asked to call upon their broader gender knowledge to make judgements. In other words, whilst these judgements will include knowledge from experiences they have had with behaviour exhibited by peers, they will not solely be based on specific experiences; judgements will also include gender knowledge learned from a variety of sources and represent broader gender beliefs. Additionally, likelihood questions were used to explore the *expectations* children have about others performing behaviours, in contrast to several other studies in which participants were asked about specific behaviours that had already occurred (Warden et al., 2003; Wentzel, 2002; Wentzel et al., 2007). Children evaluate peers' actions based on the gender norms they hold and the associated expectations they have for said behaviours. It is therefore important to know if children *expect* prosocial behaviour from girls so that we might make predictions about how they will react to both girls' and boys' prosocial behaviour. Secondly, children were asked to determine the likelihood that either boys or girls would perform specific prosocial **behaviours** as opposed to asking about personality **characteristics** (which represent broader concepts). This measure

provided a direct insight into whether children believe gender is an important factor in the performance of prosocial behaviour specifically, and whether children associate prosocial behaviour with a gender group as a whole.

When investigating how children gender-type behaviours, a wide range of ages is crucial to account for variations in knowledge about gender. Therefore, this developmental research question was approached using a wide age range (cross-sectional in its design), looking at children from as young as 5, to adolescents aged 18 years. This was important as knowledge about gender (and associated gender norms and stereotypes) changes dramatically across development, and progresses through various stages of complexity and intensity. As well as this, other important factors such as peer group dynamics, peer pressure, and knowledge of gender role flexibility also vary within this age range (5-18 years) as children and adolescents progress through key social and cognitive developmental stages. Specific measures of these were not included, as this first study was designed to be simple and quick to administer.

4.1.2 Hypotheses and Research Questions

It was predicted that participants would judge all prosocial behaviours as more likely of girls (and therefore gender-type prosocial behaviour as feminine). This prediction was made because knowledge of stereotypes regarding personality traits and characteristics is acquired during childhood (Martin & Ruble, 2009), reaches adult levels by 9 years (Serbin et al., 1993), and consolidates and intensifies in early adolescence (Hill & Lynch, 1983). In addition to this, it was predicted that participants would judge prosocial behaviour as likely of girls to the greatest extent in early adolescence, compared to childhood and late adolescence, due to the intensification and consolidation of gender stereotype knowledge, as well as decreased gender stereotype flexibility at this age (Bartini, 2006; Galambos et al., 1990; Huston & Alvarez, 1990; Stoddart & Turiel, 1985). There is some evidence (discussed in Chapter 2) that gender stereotype flexibility (the

idea that boys and girls are not bound by stereotypes) increases across development (Katz & Ksiansnak, 1994; Trautner et al., 2005). This suggests that whilst gender stereotype knowledge intensifies, children also increasingly learn that they are not bound to act in the ways dictated by said stereotypes. This would suggest that the gender-typing of prosocial behaviour may in fact decrease. However, increased gender flexibility has been shown to have little effect on knowledge and use of existing stereotypes (Banse, Gawronski, Rebetez, Gutt, & Morton, 2010). Therefore, when asked gender likelihood questions it was expected that children and adolescents would judge prosocial behaviour as more likely of girls, particularly in early adolescence.

This study also explored whether boys and girls differed in their gender likelihood judgements of prosocial behaviour. Previous research has shown: that girls nominate more girls as prosocial classmates than boys do (Warden et al., 2003; Warden & MacKinnon, 2003); that girls place greater emphasis on prosocial goal pursuit and prosocial values (Beutel & Johnson, 2004); that girls have greater knowledge of gender stereotypes than boys (Serbin et al., 1993); and finally that girls display greater own-gender favouritism than boys do and are likely to emphasise the prosocial stereotype about girls (Powlishta, 2004). It was therefore expected that, whilst boys and girls would both rate girls as more likely to perform prosocial behaviour (due to knowledge of stereotypes by both) girls will do this to a greater extent than boys. It was also expected that this pattern would occur in all age groups, and would not vary by age.

4.2 Method

4.2.1 Design

This study used a mixed design with two between-groups factors: participant gender (with two levels: boys and girls) and age group (with four levels: early childhood – 5-7 years, middle childhood – 7-11 years, early adolescence – 11-15 years, and late adolescence – 16-18 years), and one within-

groups factor: behaviour type (with four levels: giving, sharing, helping and comforting). These three age groups were chosen because they map on to key periods of change in gender development, moral reasoning, and stereotype knowledge (Martin & Ruble, 2009). These prosocial behaviours were chosen as they feature in a range of prosocial behaviour studies, including key meta-analyses of gender differences in prosocial behaviour (Fabes & Eisenberg, 1996; Radke-Yarrow et al., 1983). The dependent variable was the gender likelihood rating about the action (i.e., choosing who is more likely to perform the behaviour – boys, girls, or either boys/girls).

4.2.2 Participants

Recruitment

Separate recruitment methods were used for school children compared to college students. For school children initial contact was made with thirteen primary schools and five secondary schools across Surrey (in South East England), in areas including Staines, Martin's Heron, Bracknell and Reading. These schools were all selected using Ofsted scores as a key criterion. Ofsted is a non-ministerial government department overview body, and their assessment provides a measure of school quality. These scores were displayed on the website of the school and these institutions achieved mainly midline scores. This acted as a proxy for school climate and performance, as well as giving an indication of socioeconomic status, parental income, parental education level, and average child IQ (as it was impractical to measure the aforementioned criteria, as this would have made questionnaires too long). Initial letters (see Appendix 1 for an example) were followed up by a phone call to the head teacher of the school. The first primary school that was contacted accepted a meeting to discuss the study further, and this meeting resulted in the school agreeing to take part in the study. All five secondary schools were contacted, with one agreeing to a meeting to discuss the study further, and this meeting resulted in the school agreeing to take

part in the study. For college students, participants were recruited through opportunistic sampling of 3 groups of college students visiting Royal Holloway, University of London, for a talk about undergraduate psychology. These colleges were based in West London and Surrey, and were matched demographically to the primary and secondary schools as much as possible.

Consent

Primary Schools

Opt-out consent forms including a covering letter explaining the study were sent out to parents a week before the testing was conducted (Appendix 2). Children whose parents returned the letters did not take part in the study. After a short briefing regarding the study, children aged 5-10 years accompanied the researcher individually (children aged 5-7) or in groups (years 8-10) out of the classroom to the testing area. Children that were absent on the testing days were did not participate in the study.

Secondary Schools

Opt-out consent forms including a covering letter explaining the study were sent out to parents a week before the testing was conducted. Children whose parents returned the letters were excluded from taking part in the study. After a short briefing regarding the study the researcher handed out the materials during their morning tutorials. This occurred over two days. Children that were absent on the testing days did not participate in the study.

College Students

Parents of participants were sent opt-out consent forms (with covering letter) two weeks before participants visited the university. Any students that returned the form on the day they visited were excluded from taking part in the study. On the day of the study, participants (aged 16-18 years) were again briefed on what the study involved, and if they themselves did not want to take part then they were permitted not to do so.

Participant Information

Participants were 152 boys and 154 girls from two schools in suburban, middle-income areas in the South East of the United Kingdom, and three colleges (one in Surrey and two in West London). The participants ranged from 6 to 18 years in four age groups: early childhood ($n = 55$, $M = 6.91$, $\text{min} = 5.86$, $\text{max} = 7.80$, $SD = .53$, 27 boys), middle childhood ($n = 96$, $M = 9.86$, $\text{min} = 7.94$, $\text{max} = 11.68$, $SD = 1.02$, 51 boys), early adolescence ($n = 84$, $M = 13.76$, $\text{min} = 11.85$, $\text{max} = 15.78$, $SD = 1.17$, 43 boys), and late adolescence ($n = 71$, $M = 17.0$, $\text{min} = 16.17$, $\text{max} = 18.10$, $SD = .49$, 31 boys). Most participants were White British (78%), with the remaining percentage from various ethnic minorities (principally Irish, Black African, Other White Background etc).

4.2.3 Materials and Procedure

The materials and procedure were similar for all age groups, although minor modifications were made to the structure of the testing session depending on the age of the children. Children in early childhood were tested individually. The researcher read stories and then asked the children the accompanying questions and recorded their responses. Children in middle childhood were tested in small groups in a quiet room in their school. The stories were read aloud to them, but they filled out responses in a booklet. Finally early and late adolescents read the stories themselves and completed the questionnaire independently in a classroom setting. Early and late adolescents were tested during their tutorial period in the morning which was 25 minutes in length. This was a consideration when designing the materials described below, as the researcher had to administer the questionnaire, and provide a debrief in this time, in addition to the participants completing the measure.

Participants in this study would hear/read four stories, each concerning a different type of prosocial behaviour. Each story depicted a scenario where a child (the protagonist) performed an action towards another child. These stories were: a

story about a child giving a pencil (“There are two children sitting in a classroom together drawing. One of the children needs a red pencil that the other child is using. The child using the pencil gives it to the other child to borrow”); a story about a child helping another child (“A child is playing in the playground and sees another child fall over and hurt their knee, and they help them back up again”); a story about a child sharing a book (“There are two children sitting in a classroom together. One of the children is reading a book that the other child would like to read. The child reading the book shares their book, and the children read the book together”); and finally, a story about a child comforting another child (“A child is upset about something that happened earlier, and another child comes along and hugs them and says ‘It will be OK, don’t be upset’”). The scenarios represented equivalent prosocial acts across age groups, but some details were altered to make the scenarios more realistic for participants. For example, for the adolescent age groups, the scenarios concerned the sharing of a magazine (as opposed to a pencil), and used the word person (instead of child). After each scenario children were asked whether they felt one gender or either was more likely to have acted in the same way as the protagonist, in order to assess how these behaviours may be associated with gender. Specifically, participants were asked, “When you think of someone who gives, who is more likely to do this?” They chose one of three options: boys, girls or either/both. Choosing boys was coded as -1, choosing either/both was coded as 0, and choosing girls was coded +1.

4.3 Results

A mixed ANOVA was computed to explore the impact of age and gender on likelihood ratings of prosocial behaviours. There was one within-subjects factor (behaviour type), and two between-subjects factors (participant gender and age group). The results presented here are for the parametric analysis of participants responses (treated as continuous data), and this decision is discussed in greater detail in section 3.2.1.1 in Chapter 3. In addition to this, the data were

Table 4.1 Descriptive Statistics for Likelihood Judgements for Each Behaviour Type

Behaviour Type	N	Mean	Standard Deviation
Giving	235	.32*	.73
Sharing	235	.29*	.69
Helping	235	.20*	.69
Comforting	235	.59*	.61

* = $p < 0.001$

also analysed non-parametrically (being treated as categorical). These results from this analysis were similar to those presented here, and the continuous results were chosen for this thesis as they are clearer and easier to interpret.

4.3.1 Judgements for Different Behaviour Types

There was a significant main effect for behaviour type, Wilks' Lambda = .82, $F(3, 227) = 16.259$, $p < 0.001$. The means and standard deviations are presented in Table 4.1. Six post-hoc paired sample t-tests (using an appropriate Bonferroni correction) showed that there were no differences in gender likelihood ratings between *helping* and *sharing*, *helping* and *giving*, and *giving* and *sharing*. However, *comforting* was significantly different to *giving*, $t(305) = 5.71$, $p < 0.001$, $d = -0.40$, *sharing*, $t(305) = 6.39$, $p < 0.001$, $d = -0.46$, and *helping*, $t(305) = 8.02$, $p < 0.001$, $d = 0.61$. This shows that participants judged that *comforting* was significantly more likely of girls than the other behaviours used. Furthermore, four post-hoc one sample t-tests (using Bonferroni correction) showed that gender likelihood ratings for *giving*, $t(305) = 7.79$, $p < 0.001$, $d = 0.89$, *sharing*, $t(305) = 7.57$, $p < 0.001$, $d = 0.87$, *helping*, $t(305) = 5.06$, $p < 0.001$, $d = 0.58$, and *comforting*, $t(305) = 17.04$, $p < 0.001$, $d = 1.95$, were significantly different to

Table 4.2 The Means (Standard Deviations) for Boys' and Girls' Gender Likelihood Judgements at Each Age

	Early Childhood	Middle Childhood	Early Adolescence	Late Adolescence	All Ages
Boys	.00 (.41)	.22 (.40)**	.27 (.41)**	.37 (.31)**	.22 (.40)**
Girls	.34 (.32)**	.36 (.28)**	.66 (.29)**	.53 (.28)**	.48 (.32)**
Total	.17 (.40)*	.28 (.35)**	.46 (.41)**	.46 (.30)**	.32 (.40)**

* = $p < 0.01$, ** = $p < 0.001$

zero (the gender neutral option). Therefore all behaviours were judged as more likely of girls than boys, and this effect was strongest for *comforting*.

4.3.2 Comparing the Judgements of Boys and Girls

There was a main effect for participant gender, $F(1, 298) = 42.31$, $p < 0.001$, $\eta_p^2 = 0.124$. A post-hoc independent t-test, conducted on a composite score of the ratings for all four actions, showed that girls ($M = 0.48$, $SD = 0.32$) gave significantly higher ratings (i.e., found it more likely that girls would perform the action) than boys ($M = 0.22$, $SD = 0.40$). Two one-sample t-tests (again applying a Bonferroni correction) were computed to assess whether boys' and girls' gender likelihood ratings were significantly away from 0 (the gender neutral option). Both boys', $t(151) = 6.90$, $p < 0.001$, $d = 1.12$, and girls', $t(154) = 18.79$, $p < 0.001$, $d = 3.03$, ratings were positive and significantly different from 0 (see again Table 4.2). These results show that, while both boys and girls consider prosocial behaviour more likely of girls, girls judge prosocial behaviour as more likely of girls to a greater extent than boys.

4.3.3 Comparing Across Age Groups

There was also a main effect for age group, $F(2, 298) = 11.38, p < 0.001, \eta_p^2 = 0.103$. Post-hoc analysis using a Tukey HSD test revealed a significant difference between early childhood and both early and late adolescence, as well as a significant difference between middle childhood and both early and late adolescence. Furthermore, 4 (Bonferroni corrected) one-sample t-tests were computed (using composite scores) to assess whether participants' gender likelihood ratings were significantly away from 0 (the gender neutral option). In early childhood, $t(54) = 3.19, p < 0.005, d = 0.87$, middle childhood, $t(95) = 7.89, p < 0.001, d = 1.62$, early adolescence, $t(83) = 10.41, p < 0.001, d = 2.28$, and late adolescence, $t(70) = 12.79, p < 0.001, d = 3.06$, participants ratings were significantly away from zero towards one (see the bottom row in Table 4.2). Taken together these results showed that whilst participants judged prosocial behaviour as more likely of girls at all ages, adolescent participants judged prosocial behaviour as more likely of girls to a greater extent than participants in early and middle childhood.

4.3.4 The Interaction between Participant Gender and Age Group

Finally, there was an interaction between participant gender and age group, $F(2, 234) = 3.05, p < 0.05, \eta_p^2 = 0.026$. Four (Bonferroni corrected) t-tests were computed to assess the differences between boys' and girls' ratings at each age group. In early childhood, $t(53) = 3.42, p < 0.001, d = 0.94$, middle childhood, $t(94) = 2.04, p < 0.05, d = -0.42$, early adolescence, $t(82) = 5.12, p < 0.001, d = 1.13$, and late adolescence $t(69) = 2.27, p < 0.05, d = 0.55$, girls rated prosocial behaviour as more likely of girls than boys did. Furthermore, eight (Bonferroni corrected) one-sample t-tests were computed to assess whether boys and girls ratings were significantly away from 0 in each age group. With the exception of boys in early childhood, boys and girls in each age group judged

prosocial behaviour to be significantly more likely of girls (see the higher values for girls in the second row of Table 4.2).

4.4 Discussion

This study investigated how children and adolescents associate specific prosocial behaviours with boys or girls (as a gender group), and whether we can view prosocial behaviour as gender-typed. Gender likelihood questions were used as a more direct assessment of children and adolescents' gender associations with prosociality, as they ask them to call upon their amassed gender knowledge to make these judgements. This is in contrast to other studies which ask children about behaviour that has already occurred in specific experiences with peers. Gender likelihood questions were also used to explore the *expectations* children have about others performing prosocial behaviour in the future, in order to predict how children might react when peers perform prosocial behaviour. This study provides important insights into how children view prosocial behaviour to relate to gender, and who boys and girls expect to perform prosocial behaviour.

It was predicted that children, at all ages, would judge that girls are more likely to act prosocially, and this was supported. Results from this study suggest that children and adolescents make a clear and strong association between prosocial behaviour and girls (as a gender group). In addition to this, it was predicted that children in early adolescence would judge prosocial behaviour as likely of girls to the greatest extent, and this was partially supported. Whilst children did judge prosocial behaviour as more likely of girls to a greater extent in early adolescence, this was maintained in late adolescence.

These results show how children and adolescents consistently judge that girls are more likely to perform prosocial behaviour than boys. In this sense we can view prosocial behaviour, or at least these four specific behaviours, as female-typed. This is most likely a reflection of the prosocial gender stereotype that children will be aware of from a young age (Martin & Ruble, 2009) and children

appear to use this knowledge to make judgements about others and about gender groups as a whole. In this sense, prosocial behaviour is viewed by children and adolescents as a 'girl' thing to do, and is socially categorised as feminine. This provides empirical support for the existence of a prosocial gender stereotype (Eisenberg et al., 2007) in children and adolescents.

Although children at all ages think that girls are more likely to act prosocially, older children thought this to a greater extent than younger ones. Stereotypes have been shown to intensify in early adolescence, which could account for the increased ratings at this age (Galambos et al., 1990). This is also in line with research that suggests that gender stereotype flexibility decreases at this age (Bartini, 2006; Galambos et al., 1990; Huston & Alvarez, 1990; Stoddart & Turiel, 1985). Furthermore, gender stereotype flexibility has also been shown to decrease when children make significant transitions in the school system (for example primary to secondary school, or secondary school to college, see again Alfieri et al., 1996). As the participants in early adolescence will have just experienced the former transition (from primary to secondary school), and late adolescence will have just experienced the latter transition (from secondary school to college/sixth form) they may make more gender-typed judgements. As discussed in Chapter 2, some researchers argue that gender flexibility increases across development (Katz & Ksansnak, 1994). Therefore, an alternative explanation is that, even if stereotype flexibility does increase in adolescence, this may not affect the spontaneous judgements made about gender likelihood. Studies involving children have shown that even with increased gender flexibility, spontaneous gender stereotyping remains stable (Banse et al., 2010). It could be possible that whilst gender flexibility in late adolescents is high, when presented with questions that evoke the stereotypes they hold, they still respond in a stereotypical manner. Whatever the explanation, it is clear that children in early adolescence believe prosocial behaviour to be more likely of girls to a greater extent than in childhood.

It was also predicted that, at all ages, girls would judge prosociality as more likely of girls to a greater extent than boys. This too was supported. This is most likely due to the fact that girls place greater emphasis on prosocial goal pursuit and values than boys (Beutel & Johnson, 2004), nominate other girls as prosocial classmates more than boys (Warden et al., 2003), have a greater knowledge of gender stereotypes than boys (Serbin et al., 1993), and display greater in-group favouritism than boys (Powlishta, 2004). Moreover, girls may gender-type prosocial behaviour as feminine as this will be stored in their own-sex gender schema, which is both larger, easier to access and more significant to them (Martin & Halverson, 1981). Conversely, whilst boys will still have access to the knowledge that prosocial behaviour is female-typed, this will be in their other-sex schema and may not be as readily accessed (leading to judgements that are not as strong as those made by girls). In addition, both boys and girls tend to try and exaggerate the differences between them (Powlishta, 2004). This would explain why boys judge girls as more prosocial as they do not want to be seen as prosocial themselves – as this is a girl thing to do. Girls may embrace and wish to emphasise these differences between the two gender groups, and therefore rate themselves as distinctly more prosocial.

4.4.1 Implications

These results carry a number of important implications. Prosocial behaviour is socially categorised by children and adolescents aged 6 to 18 years old as something that girls are more likely to do than boys. We can therefore view prosocial behaviour as female-typed. As such children may incorporate this knowledge into their gender schemas (Bem, 1981; Martin & Halverson, 1981), as the social categorisation of prosocial behaviour becomes cognitive. Specifically, children may evaluate these behaviours differently upon encountering them in day-to-day interactions, either when deciding to perform the action themselves, or upon performance by another child. According to the schematic processing model

put forward to Martin and Halverson (1981, see section 2.3.3.1 in Chapter 2), when girls encounter this behaviour they will evaluate it as ‘for me’ and incorporate this behaviour into their own-gender schemas. Conversely, boys will evaluate this behaviour as ‘not for me’ and incorporate this into their other-gender schema. This is likely to have a significant impact on whether boys and girls choose to perform prosocial behaviours in future scenarios. In addition, due to the schematic classification of prosocial behaviour, these actions may carry different consequences for boys and girls, in terms of evaluations given by observers (i.e., peers). For example, when evaluating a girl performing prosocial behaviour, this will be evaluated positively, as this behaviour is in line with the expectations of peers. Contrastingly, when evaluating a boy performing prosocial behaviour, this may be evaluated less positively, as this will be seen as less congruent with peers ideas of what boys should be doing – or rather, these actions will seem more congruent with their ideas of what girls should be doing.

If this is the case, how might peers react when boys perform this behaviour? Boys are often judged harshly across childhood by peers for playing with gender incongruent toys and engaging in cross gender activities (Carter & McCloskey, 1984; Fagot, 1985). So, if boys choose to perform prosocial behaviour, they may be judged negatively (or rather, less positively) for performing a behaviour typically expected from girls, and therefore discouraged from doing so in the future. Interestingly, greater gender role flexibility has been correlated with showing more prosocial behaviour in boys (Doescher & Sugawara, 1990) suggesting that when boys view gender roles less rigidly they may feel more able to perform prosocial actions. As well as the question of increased pressure on boys to not act prosocially, one can also ask whether there is greater pressure on girls to perform prosocial behaviours. Does not acting prosocially carry negative consequences for girls as they are failing to live up to the expectations of peers of how they should behave? This issue is made increasingly complex by the moral nature of these behaviours, as there are competing pressures from peers to be good examples of boys and girls (in terms

of gender norms) and from parents to be good boys and girls (in terms of moral rules).

Despite the moral pressures to be good, the female-typing of many prosocial acts could provide strong motivation for boys to perform fewer of these behaviours, particularly in public (i.e., in front of peers) where they may suffer social costs associated with engaging in ‘feminine’ acts. This motivation may be felt particularly strongly at times in development when the pressure to conform to gender norms is greatest, for example in early adolescence (Fabes et al., 1999; McHale, Shanahan, Updegraff, Crouter, & Booth, 2004; Rae Clasen & Brown, 1985). Peers at this age often actively encourage peers to act in a gender congruent fashion, possibly because pubertal hormones help to emphasise sex and gender as a salient and integral part of the self in the context of peer relationships (Fabes et al., 1999). This may form part of the explanation as to why early adolescence represents a period in development during which gender roles become a great deal stricter and more rigid (McHale et al., 2004). Of course the results from this initial study indicate that female-typing of prosocial behaviour is present from childhood onwards. However, whilst peers may be active reinforcers of gender norms across development, their impact in early adolescence may be particularly intense and powerful. This could also make prosocial behaviour morally ambiguous for boys – they may find it harder to balance the pressure to be good (moral pressures) and the pressure to be a good example of a boy (social pressures).

4.4.2 Limitations

There were a number of limitations to this study. Firstly, the behaviours used could have been more numerous and diverse. The reasons for the choice of these four behaviours to represent prosocial behaviour are outlined in section 4.2.1. However, prosocial behaviour, particularly in adolescence, encompasses a much wider range of unique behaviours under the umbrella term of prosocial

behaviour. For example, boys may wish to perform more agentic prosocial behaviours, and those that perhaps include more risk, such as providing physical assistance. In contrast, girls may wish to perform behaviours that are more emotionality based, such as providing emotional support. Some types of behaviours are not covered in the categories used in this study. Furthermore, specific representations of the actions (for example, representing comforting as a physical act) may lead to specific gender-typing that may not occur when described differently (for example, boys might comfort friends orally rather than physically). Therefore, whilst the categories used in this study do cover a wide range of behaviours, a greater number of behaviours may have been more useful for identifying more specific patterns of gender-typing. This issue is largely addressed later in this thesis, in Chapters 6 and 7. Secondly, as the scale used in this study was a 3-point scale, it could be argued to be both categorical and continuous. The data can therefore be analysed in two distinct ways, either by using means to analyse differences between groups (a common approach to continuous data), or by measuring the differences in choice frequencies (a common approach to categorical data). The approach chosen for this chapter was the continuous approach, for two reasons. Firstly, this approach allows the results to be viewed with increased clarity, as it is clear to see to which end of the scale the judgements swing towards. Secondly, the categorical approach is commonly taken when analysing ratings of gender stereotype flexibility, and this was not the aim of this study. The analytical approach taken was therefore the correct choice for this data set (see Chapter 3 for further discussion).

4.4.3 Conclusion

The results from this study indicate that: children and adolescents consistently gender-type prosocial behaviour as feminine; that this gender-typing occurs to a greater extent in girls; and that gender-typing of prosocial behaviour becomes stronger in adolescence. In this sense we can view prosocial behaviour

(or at least the broad behaviours used in this study such as helping, sharing etc.) as female-typed. Using gender-likelihood questions provided a more direct measure of who children and adolescents *expect* to act more prosocially, and this, again, is clearly girls.

As stated, the age-related changes in this study suggest that participants in early and late adolescence judge that prosocial behaviour is more likely of girls to a greater extent than participants at younger ages. What is still unclear is whether these judgements are based on experience that adolescents have with peers or whether gender norms are just particularly salient at this age. Future research should investigate whether girls in adolescence are displaying more prosocial behaviours than boys, and therefore seeming more likely to act prosocially, or whether boys and girls are just becoming more aware that girls *should* be being prosocial? Knowledge about gender stereotypes is thought to consolidate and intensify in early adolescence (Galambos et al., 1990; Hill & Lynch, 1983) and knowledge regarding gender norms about prosocial behaviour would also intensify as part of this process. This would lead both early and late adolescents to judge prosocial behaviour as more likely of girls to a greater extent than younger children. It is likely to be somewhat of a self-fulfilling prophecy, as prosocial gender norm knowledge intensifies, girls may perform more prosocial behaviours (and boys less) to conform to the expectations that these norms posit.

It is interesting that prosocial behaviour, as a moral action, is so consistently and strongly female-typed. Due to the nature of prosocial behaviours they are labelled as 'good' in a moral context. These labels are dictated by moral rules that are universally applicable (Turiel, 1998) and learnt at a young age (Vaish et al., 2011). However, this study shows that prosocial behaviour (a moral behaviour) may also be subject to social rules and norms. This is reflected in the judgements that children and adolescents made in this study – that girls are more likely to perform prosocial behaviour, despite the moral incentive for *both* boys and girls to be equally prosocial. This leads to the important question of how boys and girls are morally judged when they perform prosocial behaviours because of

this social information regarding gender. Are moral judgements about prosocial behaviour influenced by this knowledge? And at what ages? What is clear is that both boys and girls across childhood and adolescence judge girls as more likely to perform prosocial behaviour. This provides strong and consistent support for the existence of a prosocial gender norm, and that children at these ages rate their female peers to be more likely to act prosocially than their male counterparts.

Chapter 5: At Age 13 Years Adolescents Judge Boys Performing Prosocial Actions as Less Good than at Other Ages

The previous chapter demonstrated that we can view prosocial behaviour as female-typed across childhood and adolescence. As such, as children continue to amass gender knowledge, prosocial behaviour will increasingly come to be incorporated into their gender schemas (Bem, 1981; Liben & Bigler, 2002; Martin & Halverson, 1981). From these schemas, children and adolescents are able to: make decisions about which behaviours to perform themselves; make predictions about boys' and girls' future prosocial behaviours; and to act appropriately to those behaviours upon performance by other children.

If prosocial behaviour is female-typed (as suggested by results in the previous chapter) these actions may incur differing social reactions when performed by boys and girls due to the differential congruency of this behaviour with male and female gender norms. It may be viewed as more appropriate for girls to perform prosocial behaviour (as this behaviour may be identified as 'for girls' in children's gender schemas), and when boys perform this behaviour it may be viewed as less appropriate. Children and adolescents may therefore react less positively to prosocial behaviour when it is performed by boys, but not when performed by girls. In this sense, social information about gender and gender norms (i.e., the knowledge that prosocial behaviour is female-typed), may influence how children judge prosocial behaviour in a *moral* manner. This raises a number of important issues about whether boys feel able to act in a morally correct manner. Prosocial behaviours can largely be labelled as morally good, although variations in this do occur (for example based on context – whether behaviours are performed in public or in private, or based on the recipient of the behaviour – for example helping a friend vs. a stranger, the latter possibly being

less positive due to risk). Therefore, due to their positive nature, prosocial behaviours are typically encouraged by authority figures such as parents and teachers. However, if prosocial behaviour can broadly be viewed as a ‘girl thing’ to do, there may be ambiguity for boys between their moral pressure, to be a *good* boy, and their social pressures, to be a *good example of* a boy (or rather to avoid being a good example of a girl). We must therefore investigate how children and adolescents evaluate prosocial behaviours when performed by boys, as the knowledge that prosocial behaviour is female-typed may result in variations in what should be universally positive judgements.

The present study investigated how children and adolescents morally judged hypothetical prosocial behaviours (and also failing to perform prosocial behaviours) when these actions were performed by a boy or a girl. The gender of the protagonist may influence how participants evaluate these actions in a moral way by providing competing social information about the appropriateness of prosocial behaviour for boys and girls.

5.1 Introduction

Domain theory (e.g., Smetana, 2006) proposes that an important task for children is to acquire different domains of social knowledge, specifically, those concerning moral, social-conventional, and personal issues. The moral domain denotes rules that are universal and have a moral necessity to them, such as the universally accepted rules that it is wrong to steal or to harm others. The social-conventional domain relates to rules that are context dependent (e.g., it may be appropriate to wear one set of clothes at home, but more formal dress is required at another occasion). Matters in the personal domain are within the gift of individuals. These strands co-exist alongside each other and follow different developmental trajectories (Killen & Rutland, 2011; Smetana, 2006). Rules in different domains may be used together but may also be subordinated to each other in different contexts. This subordination arises when there are conflicts

between rules or when events cannot be cleanly separated into moral or social-conventional components. In these “mixed-domain scenarios” events that have typically been construed in moral terms may be evaluated in social-conventional or personal terms (Killen, 1990; Smetana, Killen, & Turiel, 1991).

Whilst little research has explored differences in moral judgements of prosocial behaviour, previous studies have explored differences in moral judgements about exclusion and inclusion (moral behaviours) of same- or opposite-sex peers (Killen, Pisacane, Lee-Kim, & Ardila-Rey, 2001; Theimer, Killen, & Stangor, 2001). In these studies exclusion was consistently judged as negative, and wrong, and inclusion was consistently judged as positive, and right. Furthermore, moral justifications (appealing to moral rules and norms such as fairness and turn taking) were given in support of these judgements (Killen et al., 2001; Theimer et al., 2001). These were based on moral beliefs held by children about fairness and rights, equal treatment, and equal access (Damon, 1983; Turiel, 1998). These scenarios were ‘straightforward’, as children made a simple evaluation that employed the moral domain exclusively.

When additional information is provided, such as previous experience of the child wishing to join the group, this creates ‘multifaceted’ scenarios. These scenarios are multifaceted because they involve information additional to just the moral act itself. Killen and Stangor (2001) suggest that when decisions about potential exclusion from a group are made, these involve coordination of moral judgements about the wrongfulness of exclusion with social-conventional knowledge. Put simply, adolescents must weigh these two competing sources of information against each other. When adolescents were presented with multifaceted scenarios age-related variations in moral judgements resulted. For instance at age 13, when choosing between a same-sex child with more experience with the group activity, and an opposite-sex child with less experience, exclusion of an opposite sex peer was judged as less wrong than at 11 years (Killen & Stangor, 2001). Social-conventional reasoning was used to justify these decisions (deviating from previous moral justifications). Examples of this form of reasoning

given by children were beliefs about group identity (Brown, 1989), group stereotypes (Carter & Patterson, 1982; Liben & Signorella, 1993; Stangor & Ruble, 1989; Stoddart & Turiel, 1985), and, particularly salient in this study, beliefs about group functioning (Turiel, 1978, 1983, 1998). Other studies looking at exclusion based on membership of a social group (not gender, but other popular high school social groups such as “jock” and “goth”) have shown that adolescents aged 13 years used more social conventional reasoning supporting their decisions than older adolescents (Horn, 2003).

It would appear that at age 13, when presented with multifaceted scenarios, judgements typically made using the moral domain are instead made using a combination of differing forms of reasoning. Notably, in the scenarios described above, reasoning supported by the social-conventional domain. Given that children from a very young age can make clear distinctions between which actions are right and wrong (Vaish et al., 2011), a certain “confusion” between moral and conventional reasoning at 13 years is somewhat surprising; especially seeing as the scenarios presented were multifaceted for both age groups in the study. This suggests a specific influence or salience of social-conventional reasoning at age 13. Research on children’s reasoning about social conventions has shown that these concepts change with age, particularly so in reference to social group roles, social group expectations and how much these are taken into account (Helwig, 1995, 1997; Killen, 1991; Turiel, 1978, 1983, 1998). Whilst young children reason about social conventions in terms of social conformity (e.g., “It’s wrong to call a teacher by her first name because there is a rule about it), older children reason about social group customs in terms of societal standards and social coordination (e.g., “It’s wrong to call a teacher by her first name because maybe the other students would think of her as a peer instead of someone with authority and higher status”; see Turiel, 1983, p. 103). With age, children become increasingly concerned about the nature of social groups and the norms and expectations that go along with the structure and functioning of the group. Killen and Stangor (2001) argued that the changes in adolescents’ judgements

about exclusion at 13 years represented a shift in the dominant domain being used in this age group. It may also represent increased importance of social-conventional knowledge to adolescents at this age.

This shift in judgements at 13 years might also reflect children's underlying awareness of intra- (as well as inter-) group characteristics in making judgements (e.g., Rutland, Killen, & Abram, 2012) or, not necessarily unrelated, more specific changes in children's gender relations and gender knowledge (Martin & Ruble, 2009; Serbin et al., 1993). In support of this, whilst some researchers argue that gender stereotype flexibility increases throughout late childhood and adolescence (Carter & Patterson, 1982; Eckes & Trautner, 2000; Katz & Ksanskak, 1994), others argue that gender stereotype knowledge intensifies in early adolescence (Hill & Lynch, 1983) and that gender flexibility decreases (Alfieri, Ruble, & Higgins, 1996; Bartini, 2006; Galambos et al., 1990; Stoddart & Turiel, 1985). Increased gender stereotype importance and salience at this age could be responsible for the increased use of social-conventional reasoning in justifying intergroup exclusion based on gender.

5.1.1 Study Aims

To the author's knowledge little attention has been paid to how children or adolescents morally evaluate prosocial behaviours when presented in multifaceted scenarios (like exclusion and inclusion above). The majority of research has focused on children's reasoning behind performing certain actions in prosocial moral dilemmas (Eisenberg-Berg, 1979; Eisenberg et al., 1983; Eisenberg et al., 1991; Eisenberg et al., 1987). In these studies, most children decide to perform the prosocial action, thus showing that most children are aware that this is the morally 'right' thing to do. However, these studies do not focus on how children evaluate that action in terms of the degree of 'rightness' or 'wrongness', just that they believe they should do it in contrast to a selfish choice (as discussed in Chapter 3). Furthermore, all children taking part in these studies are imagining themselves in

these scenarios. Therefore the choices they make reflect decisions that concern them as an individual, rather than themselves as belonging to any social group (i.e., beliefs about what *other* boys or girls should do). It is important to investigate how children and adolescents evaluate the hypothetical prosocial actions of same- or opposite-sex peers to provide insight into how they might evaluate these actions when performed by peers in day-to-day scenarios.

In the context of the present study, children and adolescents may have to evaluate competing sources of information when judging peers performing prosocial behaviour. Under the distinctions of right and wrong learned in childhood, prosocial behaviour, like inclusion, is regarded morally as a positive or 'right' action. Conversely, failing to perform prosocial behaviours, like exclusion, is thought of generally as 'wrong'. However, the gender of the protagonist performing this behaviour may provide competing social-conventional information that children and adolescents may use when evaluating these actions. Chapter 4 showed that prosocial behaviour is consistently female-typed by children, and that this is particularly strong in adolescence. Therefore, social-conventional reasoning concerning the gender-typing of prosocial behaviour may affect moral judgements at ages when it has been shown to be important (i.e., around 12-13 years old).

In this study, the work of Killen and colleagues was extended, by investigating whether moral judgements about prosocial behaviour (and failing to perform prosocial behaviours) change based on the gender of the person performing the behaviours. 'Failing to perform prosocial behaviour' scenarios were also utilised to provide a contrast in moral judgements. This was to explore a possible distinction between 'acts' and 'omissions', specifically whether failing to act prosocially was morally evaluated in a similar way to a specific negative action – such as hitting.

5.1.2 Hypotheses and Research Questions

When judging prosocial behaviours, it would be expected that children and adolescents will judge these behaviours positively (or as ‘very good’). This is in line with the moral rules that children learn from a young age concerning ‘right’ and ‘wrong’ actions, and the identification of prosocial behaviour as a largely positive and ‘good’ action (Eisenberg et al., 2007). Children aged 7-12 years have also reported that it is wrong to fail to perform prosocial behaviours, they would feel bad if they don’t perform prosocial behaviours, and that peers would judge them negatively if they didn’t perform prosocial behaviours (Jackson & Tisak, 2001). It was therefore predicted that children would judge prosocial behaviour by either boys or girls positively (or as ‘very good’) and failing to perform prosocial behaviour negatively (or as ‘very bad’) in line with this research. It has also been shown that, like adults (Spranca, Minsk, & Baron, 1991), children can distinguish between acts of commission and omission (Hayashi, 2007). In fact, children report that others would feel worse after committing a ‘bad’ act (commission) than after failing to prevent one (omission, see Guttentag & Ferrell, 2004) when evaluating negative behaviours. This is called the ‘omission bias’ (Spranca et al., 1991), and children and adults justify rating commission as morally ‘worse’ than omission due to the fact that omissions don’t directly cause outcomes. It would therefore be expected that, when evaluating commission vs. omission with regards to good behaviour, omissions would be rated as more negative than commissions – as with positive behaviour an action is desirable.

Additionally, age related predictions regarding variations in judgements were made. As indicated by the work of Killen et al. (2001) it is at age 13 years that social knowledge competes with the moral domain to inform judgements about moral actions. Furthermore, the previous chapter showed that the gender-typing of prosocial behaviour increased significantly in early adolescence and will constitute part of the adolescents’ social knowledge about prosocial behaviour. Therefore, it was predicted that children at age 12-13 years would judge boys

performing prosocial as less good than at other ages, and boys failing to perform prosocial behaviours as less bad than at other ages.

5.2 Methods

5.2.1 Design

This study used a between-subjects design with three between-groups factors: participant gender (with two levels: boys and girls), age group (with five levels: 6-7, 8-9, 10-11, 12-13, and 14-15 years), and scenario (with four levels: a boy performing prosocial actions; a boy not performing prosocial actions; a girl performing prosocial actions; and a girl not performing prosocial actions). A between subjects design was chosen to ensure that participants made moral judgements about an act that were uninfluenced by thoughts and judgements made about other, similar acts. This was also a practical consideration, so as to keep questionnaires short and engaging for participants. These age groups were chosen as this study aimed to pinpoint specific age related changes in children's and adolescents' judgements. This age range also covers a substantial period of moral development, from when children roughly leave the amoral or premoral stage at age 6, through their continuing development of autonomous morality in their teenage years (Piaget, 1965). The dependent variable was moral judgement about the action (how good or bad the action was).

5.2.2 Participants

Recruitment

Contact was made with three schools, two primary and one secondary, two of which provided participants for the study in Chapter 4. These schools were in the areas of Staines and Martin's Heron in Surrey (in South East England), with similar demographic properties. Initial contact was followed by face to face meetings to discuss the study further and to work out technical details of

administration and data collection. These meetings resulted in the schools agreeing to take part in the study.

Consent

Primary school

Opt-out consent forms including a covering letter explaining the study were sent out to parents a week before the testing was conducted (Appendix 2). Children whose parents returned the letters were excluded from the study. After a short briefing regarding the study, classroom teachers of children aged 6-7, 8-9 and 10-11 years agreed to letting the researcher take children either individually (6-7 years) or in groups (8-9 and 10-11 years) out of the classroom to the testing area.

Secondary school

Opt-out consent forms including a covering letter explaining the study were sent out to parents a week before the testing was conducted. Children whose parents returned the letters were excluded from the study. After a short briefing regarding the study, classroom teachers of children aged 12-13 and 14-15 years agreed to let the researcher hand out the materials during their morning tutorials for two days.

Participant Information

Participants were 265 boys and 234 girls from three schools in middle-income, suburban areas of South East England. The participants ranged from 6-15 years old in five age groups: 6-7 years ($n = 134$, $M = 6.7$, $\min = 6.27$, $\max = 7.26$, $SD = .29$, 70 boys), 8-9 years ($n = 125$, $M = 8.7$, $\min = 8.29$, $\max = 9.33$, $SD = .29$, 62 boys), 10-11 years ($n = 110$, $M = 10.8$, $\min = 10.29$, $\max = 11.58$, $SD = .29$, 62 boys), 12-13 years ($n = 70$, $M = 13.0$, $\min = 12.41$, $\max = 13.34$, $SD = .29$, 36 boys), and 14-15 ($n = 60$, $M = 14.8$, $\min = 14.38$, $\max = 15.37$, $SD = .30$, 35 boys). Most participants were White British (86%), with the remaining percentage

from various ethnic minorities (principally Black African, Other Asian Background etc).

5.2.3 Materials and Procedure

For children in middle to late childhood (i.e., 6-7, 8-9, and 10-11 years) vignettes were created that included cartoon pictures showing children acting out a written story. The 6-7-year-old children were tested individually. The researcher read the stories and then asked the children the accompanying questions and recorded their responses. The 8-9 and 10-11-year-old children were taken out of the classroom in small groups to a separate room and had the stories read aloud to them, but they filled out responses in a booklet. For older children (i.e., 12-13, and 14-15 years) questionnaires were made using the same stories, but without accompanying pictures and these were filled in independently in a classroom setting.

Participants in each age group were randomly divided into four groups, each seeing/reading a vignette showing one type of scenario. Each scenario showed either a boy or a girl performing or failing to perform two prosocial actions (sharing and helping vs. not sharing and not helping) towards another boy and a girl (a sample of these vignettes is shown in Appendix 3). Therefore, the four different types of scenario were: boys performing prosocial actions, boys failing to perform prosocial actions, girls performing prosocial actions, and girls failing to perform prosocial actions. After the vignette was presented, children were asked to make a judgement about how good or bad it was that the child in the vignette had performed or failed to perform these two actions. They did this using a 5-point Likert scale (e.g. 1 = 'very bad', to 5 = 'very good').

5.3 Results

A two (participant gender) x five (age group) x four (scenario) between-subjects ANOVA was computed to assess the differences in participants' judgements of how good or bad an action was if performed by a boy or a girl.

5.3.1 Age Differences in Moral Judgements

As expected, there was a significant main effect for scenario, $F(3, 498) = 837.29$, $p < 0.001$, $\eta^2 = .845$, indicating that participants rated prosocial acts more positively ($M = 4.73$, $SD = 0.67$) than instances where an individual failed to perform prosocial behaviours ($M = 1.53$, $SD = 0.64$). Neither participant gender nor age group showed significant effects on judgements. However, the interaction between age group and scenario was significant, $F(12, 498) = 3.17$, $p < 0.001$, $\eta^2 = .077$.

Four one-way ANOVAs were computed to assess age group differences in judgements for each scenario (i.e., boys performing prosocial behaviour, boys failing to perform prosocial behaviours, girls performing prosocial behaviour, girls failing to perform prosocial behaviours). When participants made judgements about a boy performing prosocial actions, there was a significant age difference, $F(4, 125) = 2.85$, $p < 0.05$, $\eta^2 = .086$. Post-hoc analyses using a Tukey HSD test indicated that at 6-7 years children judged boys' prosocial behaviour to be morally better than at 12-13 years for these prosocial acts. When participants made judgements about a boy failing to perform prosocial behaviours, there was also a significant difference in judgements, $F(4, 119) = 4.15$, $p < 0.01$, $\eta^2 = .126$. Post-hoc analyses showed that 8-9 year olds judged a boy's failure to perform prosocial behaviours as morally worse than 12-13 year olds did. This suggests that participants in this study judge prosocial behaviour by boys as less positive at age 12-13 years compared to other ages (and failing to perform prosocial behaviour as less negative at this age compared to other ages). There was no significant difference in judgements relating to girls' performing or failing

Table 5.1 The Means (Standard Deviations) for Children's and Adolescents' Judgements about Prosocial Behaviour (and Failing to Perform Prosocial Behaviour) at Each Age

	6-7 years	8-9 years	10-11 years	12-13 years	14-15 years	All Ages
Boys performing prosocial behaviours	4.85 (0.36) _a	4.72 (0.84) _{a,b}	4.72 (0.63) _{a,b}	4.21 (0.92) _b	4.67 (0.65) _{a,b}	4.67 (0.70)
Boys failing to perform prosocial behaviours	1.56 (0.80) _{c,d}	1.39 (0.56) _c	1.35 (0.63) _{c,d}	2.13 (0.96) _d	1.85 (0.55) _{c,d}	1.58 (0.74)
Girls performing prosocial behaviours	4.88 (0.33)	4.74 (0.89)	4.79 (0.69)	4.80 (0.41)	4.63 (0.62)	4.78 (0.63)
Girls failing to perform prosocial behaviours	1.44 (0.50)	1.25 (0.44)	1.67 (0.48)	1.60 (0.59)	1.63 (0.49)	1.49 (0.52)

Subscript with different letters are significant at the $p < 0.05$ level or below

to perform prosocial behaviours. The means and standard deviations for children's judgements at each age group are shown in Table 5.1.

5.4 Discussion

Previous research has suggested that at age 13 years adolescents use social-conventional information, in addition to and in competition with moral information, to evaluate moral behaviours such as exclusion (Killen & Stangor, 2001). In this study participants were presented with vignettes showing prosocial behaviour (and failing to perform prosocial behaviour) by either boys or girls. In this sense multifaceted scenarios were created by offering varying sources of information to inform children's and adolescents' judgements – one source being information about the gender of the protagonist and the other source being information about the act itself. This study investigated age-related variations in

participants' judgements, which may occur due to the evocation of social knowledge regarding gender – specifically the gender-typing of prosocial behaviour as discussed in Chapter 4.

It was predicted that all participants would morally judge prosocial behaviour positively and failing to perform prosocial behaviours negatively. This was supported. Participants judged prosocial behaviour as between good and very good, and failing to perform prosocial behaviours as between bad and very bad (see Table 5.1). This is unsurprising as children from as young as 3 years are aware of the distinctions between right and wrong (Vaish et al., 2011). It was also predicted that participants aged 12-13 years would judge prosocial behaviour less positively than at other ages, and failing to perform prosocial behaviours as less negative than at other ages but only when boys were performing these behaviours. This was also supported. Both boys and girls judge prosocial behaviour differently at this age than at other ages when the protagonist is male. At 12-13 years it is possible that another factor, or additional information, is influencing judgements that are made purely using moral information at other ages. In other words, judgements about the prosocial behaviours of boys cease to be solely moral and may be influenced by social considerations (i.e., gender).

Previous research has indicated that social-conventional knowledge becomes increasingly complex across development (Helwig, 1995, 1997), changes in application (Turiel, 1983), and is particularly important in early adolescence (Killen, 1991; Killen & Stangor, 2001; Turiel, 1998). It would appear that, as well as influencing judgements about group exclusion (Killen & Stangor, 2001), social-conventional knowledge may influence adolescents' judgements of boys performing (and failing to perform) prosocial behaviour. This social-conventional knowledge is likely to include information regarding the female-typing of prosocial behaviour highlighted in Chapter 4. The increased importance of social-conventional knowledge to adolescents at this age could be responsible for the changes in judgements found in this study. Put simply, gender norms about

prosocial behaviour may constitute social knowledge that competes with the moral domain when adolescents judge these behaviours in moral terms.

These results suggest that, at age 12-13 years, prosocial behaviour performed by boys appears to be judged using social as well as moral knowledge. This is compared to younger and older ages, when prosocial behaviour appears to be evaluated purely in a moral sense. It is intriguing that whilst gender-typing of prosocial behaviour occurs across childhood and adolescence, changes in moral judgements are only seen at age 12-13 years. This could be explained in a number of ways. Firstly, gender stereotypes about personality traits and behaviours intensify in early adolescence (Hill & Lynch, 1983) and gender stereotype flexibility decreases at this age (Bartini, 2006; Galambos et al., 1990; Stoddart & Turiel, 1985). It could be that only in this period of particular stereotype intensity that social knowledge influences judgements typically made in the moral domain. Alternatively, previous studies on exclusion have shown that this age appears to present a period of development (compared to younger and older age groups) when adolescents are particularly sensitive to the social-conventional knowledge they have, and again, use this to inform moral judgements (Killen & Stangor, 2001). This could be due to children's changing knowledge of social-conventional rules, as well as changes in application and importance of this knowledge (Turiel, 1983, 1998). In addition, adolescents may need to use social-conventional information to help negotiate new environments (as 12-13 year old children will have recently started secondary school).

A final explanation could be that, before this age, the social knowledge about gender norms and prosocial behaviour may not be mature enough to influence how boys feel morally about prosocial behaviour. The demands placed on them in childhood by authority figures to act in a morally right way may prove too strong, and the pressure from peers to act in a gender congruent fashion too weak. In addition, before age 12 children and adolescents may not yet know *how* to apply their social-conventional knowledge effectively to moral scenarios. It is likely to be a combination of all of these explanations which cause adolescents to

evaluate scenarios using social-conventional as well as moral reasoning at this age.

5.4.1 Implications

As boys enter adolescence the pressure from peers to act in a gender-congruent manner reaches its peak (Rae Clasen & Brown, 1985), and gender stereotypes become more intense and salient to adolescents. The variations in moral judgements at 12-13 years show the possible importance of social knowledge about gender in peers' evaluations of prosocial behaviour. Therefore, at this age, boys may feel a greater conflict between acting morally (and prosocially) and acting in a way that is congruent with peers expectations about prosocial behaviour, than they did in childhood. Changes in judgements in early adolescence represent the ambiguity boys experience between the moral demand of being a 'good boy' and the social demand of being a good example *of* a boy. This is an important finding, as this ambiguity may have a significant impact on the performance of prosocial behaviour by boys, despite the moral incentives to do so. This therefore begs the key question of how boys manage this ambiguity, and respond to the less positive judgements given.

The return of moral judgements at age 14-15 years to childhood levels (before 12 years) is also an intriguing finding. Whilst, female-typing of prosocial behaviour remains high in late adolescence (see Chapter 4), judgements of boys prosocial behaviour at age 14-15 would suggest that social-conventional knowledge is no longer influential on adolescents' judgements of boys prosocial behaviour. Indeed studies have demonstrated that young adults (aged 18-28 years) judge exclusion based on race using moral or personal justifications, not social-conventional ones (Killen, Stangor, Price, Horn, & Sechrist, 2004). Furthermore, studies have shown that older adolescents – aged 17 – use significantly less social-conventional reasoning than younger adolescents – aged 15 – when judging exclusion based on membership of common high school social groups (Horn,

2003). These studies suggest that social-conventional knowledge may be utilised less by adolescents as they grow older. An alternative explanation is that any conflict that boys may experience at age 12-13 is not on-going. Adolescents may still use social-conventional reasoning, but boys may find a way to resolve the ambiguity they experience in early adolescence by age 14-15 years. They may have found a way to be prosocial that is both moral and socially acceptable.

5.4.2 Limitations

There were a number of limitations to this study. Firstly, this study used vignettes (for younger participants) and written stories (for older participants) as stimuli to prompt judgements about prosocial behaviour. These scenarios, whilst adequate at portraying basic information regarding the acts and the performers of said acts, were both hypothetical and abstract. As such this study did not ask participants to judge 'real life' instances of prosocial behaviour, which may have resulted in different judgements. Due to practical considerations however, the vignettes and stories used in this study were considered sufficient, and the results are still very clear. A further consideration concerning the scenarios in this study concerns the behaviours chosen. This study only used two prosocial behaviours (helping and sharing). This is obviously very limited and, as such, means that results from this study suggesting changes in judgements about prosocial behaviour (as a term that encompasses many more behaviours than just these two) should be interpreted with caution. However, these two behaviours were chosen as they represent popular categories in prosocial behaviour studies (Eisenberg et al., 2007) and, again for practical reasons, questionnaires were designed to be short and easy so as not to test participants patience. The use of different behaviours, and practical limitations of questionnaire studies, were discussed in more depth in Chapter 3.

A further limitation concerns the cross-sectional design of the study. Due to participants in each age group being a separate sample, and from different

primary and secondary schools, the variations in judgements found at age 12-13 years could be due to cohort effects. The participants in this particular year group could have rated prosocial behaviour differently due to certain characteristics of that cohort (i.e., being a particularly badly behaved year group, or sharing different overall values). However, the randomisation of scenario allocation across this sample, as well as the fact that only judgements about boys' prosocial behaviour varied (rather than overall ratings of prosocial behaviour), suggests the variations found are the result of a genuine effect. A final limitation was that this study only collected information about participants' moral judgements about these behaviours, but not their reasoning about why they made these judgements. This would have been useful for interpretation of results, and specifically for determining why variations in judgements occur at 12-13 years. This is discussed further in Chapter 8.

5.4.3 Conclusion

This study showed that, at age 12-13 years, moral judgements about boys performing prosocial behaviour are less positive (and judgements about boys failing to perform prosocial behaviours are less negative) than at other ages. Results from work on exclusion by Killen et al. (2001) suggest that at this age, adolescents may be using social knowledge to inform their judgements, rather than exclusively evaluating these actions using moral reasoning. This poses an important question about how important gender may be in the decision to perform, or not perform, prosocial behaviours in real life scenarios. This study also suggests that the importance of gender in this decision is specific to early adolescence. This is intriguing as the social knowledge concerning prosocial behaviour is present both before and after this developmental period. What is unique about 12-13 years that causes this knowledge to influence prosocial moral judgements? And what processes occur to nullify or mediate this influence in later adolescence? It is important to note that the variations in evaluations seen in this

study, whilst significant, are still small. Adolescents aged 12-13 years still judged prosocial behaviour by boys as good, just not as good as other ages. However, due to the fact that children from such a young age are distinctly aware of the positive nature of prosocial behaviours, these variations are still important. For example, even small variations in judgements received from peers could result in behavioural differences, and choosing to perform less prosocial behaviours in the future because of these variations.

The key message from this study appears to be that prosocial behaviour becomes a 'problem' exclusively for boys in early adolescence. The judgements seen in this study show that early adolescents judge boys performing prosocial behaviour less positively, possibly because it is a 'girl' thing to do. This may present boys with an ambiguity at this age between doing what is good morally, and what peers expect of them (i.e., not to perform prosocial behaviours, as they are deemed feminine). If this is the case, this raises questions over whether boys: perform less prosocial behaviours as a result of these judgements; choose to perform prosocial behaviours but in different scenarios/situations; or whether they embrace prosocial behaviours that are not quite so strongly linked with girls as a gender group. What is evident is that in early adolescence boys may have to find a way of appeasing their competing moral and social responsibilities with regards to prosocial behaviour.

Chapter 6: The ‘Masculine’ and ‘Feminine’ Labelling of Prosocial Behaviours: Adolescents Move from a Homogenous to Heterogeneous View of Prosocial Behaviour at Age 12-13 Years

The previous chapter showed that at 12-13 years, judgements about boys performing prosocial behaviour were less positive than at other ages; and judgements about boys failing to perform prosocial behaviour were less negative than at other ages. It was argued that, at this age, social information (i.e., the gender of the protagonist) rendered judgements about boys' prosocial behaviour as morally ambiguous. Put simply, in early adolescence, participants have competing sources of information with which to evaluate the scenario, moral vs. social-conventional. These results suggested that boys may experience ambiguity between their moral role (being a good boy) and their social role (being a good example of a boy) as they are encouraged to act prosocially by parents and teachers, but may be discouraged by peers due to gender norms. What is interesting is that participants judge prosocial behaviour by boys as 'very good' at age 14-15 years, essentially reverting to pre-adolescent judgements. This suggests that even though social-conventional information is still available in these scenarios, adolescents no longer use this information when making judgements, or rather it is no longer salient or important enough to influence said judgements. Have boys found a way to balance the pressures between their roles in late adolescence? Could boys have found a way to perform prosocial behaviours, in a way that is not associated with girls, so that they no longer experience a role ambiguity? This study investigated how adolescents aged 11-15 years gender-type a wide variety of prosocial behaviours. This study explored how boys may create

for themselves a behavioural niche with regards to prosocial behaviour that allows them to fulfil both their moral and social roles.

6.1 Introduction

Before 12 years old it would appear that social knowledge about gender norms and conventions does not influence children's evaluations of prosocial behaviour in a moral context, as moral judgements regarding boys performing prosocial behaviour are consistently positive. Prosocial behaviour is judged by children before 12-years-old as 'good', in line with moral rules, and can be viewed as *homogenous*. In childhood, it is always good to act prosocially, however girls just happen to be more prosocial than boys (or there is a belief as such). Therefore, boys and girls are both happy to engage in good behaviours, in line with expectations from parents and teachers and to do so within their separate 'cultures' (Maccoby, 1988, 1998). However, as mentioned above, at 12-13 years of age boys' and girls' beliefs about, and labelling of, prosocial behaviour may change. At this age, prosocial action is broadly still judged (and presumably labelled) as 'good', but gender renders prosocial acts morally ambiguous for boys. Early adolescence may therefore typify a sensitive developmental phase where boys experience conflict between the moral and social domains. If acting prosocially is a feminine thing to do, when boys perform these behaviours they risk being judged negatively, as they are performing behaviours that are perceived to be less congruent with the male gender role (Fabes et al., 1999; Fagot, 1985).

Evidence from research in other areas suggests that early adolescence is an important phase in social cognitive development, particularly in terms of understanding the gender roles of oneself and others. As mentioned, gender stereotypes consolidate and intensify in early adolescence (Hill & Lynch, 1983), gender norms become more rigid and inflexible (McHale et al., 2004), and gender stereotype flexibility has been shown to decrease at this age (Bartini, 2006; Galambos et al., 1990; Stoddart & Turiel, 1985). As such, the gender-typing of

prosocial behaviour as feminine has been shown to dramatically increase at this age (see Chapter 4). The gender norm that prosocial behaviour is more of a 'girl thing to do' may therefore become increasingly salient along with many other stereotypes and norms. Further to this, the pressure from peers to conform to stereotypes and gender roles is most intense in early adolescence (McHale et al., 2004; Rae Clasen & Brown, 1985), and the pressure felt to not act or be like the opposite gender is significantly stronger, particularly for boys (Egan & Perry, 2001). This may be a result of increased interaction between boys and girls as interest in dating and romantic relationships heightens (Fabes et al., 1999). As boys' and girls' cultures cross and interact, adolescents become more aware of how they themselves (the in-group) and the opposite gender (the out-group) should act in accordance with social rules. Thus, in early adolescence, the knowledge of prosocial behaviour as feminine may contribute to less positive judgements concerning boys performing prosocial behaviour at 12-13 years. As highlighted in the previous chapter, evidence from studies on exclusion and inclusion of peers from social groups supports this account (Killen & Stangor, 2001).

After early adolescence the moral ambiguity about boys performing prosocial behaviour, created by gender norms, appears to diminish or to be resolved. From 14 years onwards gender is not seen as a relevant consideration when making moral judgements about prosocial acts (see Chapter 5). The change in moral judgements seen at 12-13 years does not persist in any straightforward way into later adolescence and adulthood, such that adults judge different prosocial acts as good regardless of whether a man or a woman performs them. This is reflected in studies on exclusion using other social categories (such as goth, jock etc.) which show that judgements regarding exclusion return to being consistently negative in late adolescence (Horn, 2003). The return of judgements about boys performing prosocial behaviour to very positive would suggest that boys may have found some way of resolving the conflict they experience between their moral obligations and their social pressures.

Older adolescents and adults do not differentiate between the genders in terms of moral evaluations of prosocial acts. One theme in moral development literature research suggests that men and women have different moral orientations (Gilligan & Attanucci, 1988), and that these may influence how men and women approach prosocial scenarios (discussed in Chapter 2). However, more recent research posits that any gender differences, if they do exist, are minimal (Jaffee & Hyde, 2000) or can be explained by different situational causes (Wark & Krebs, 1996). However, in a similar vein, Eagly (2009) suggests that gender roles can be used as a tool for understanding gender differences in prosocial behaviour in adulthood. Bakan (1966) suggested that women are traditionally thought of as more communal; that is, *empathic, unselfish, friendly, kind, and emotionally expressive*; in contrast, men are typically considered more agentic; that is, *assertive, competitive, dominant, chivalrous, and heroic* (Spence & Buckner, 2000). Furthermore, studies of gender stereotypes have consistently found that their content is saturated with communal and agentic characteristics (Kite, Deaux, & Haines, 2007). Eagly (2009) posits that these qualities may influence the ways in which men and women choose to act prosocially in adulthood. This is in line with social role theory, which proposes that adults perform behaviours that help them in the social roles they occupy in society (Eagly, 1987; Eagly et al., 2000). For example, by ascribing warm, sympathetic and kind qualities to women, gender role beliefs imply that women may have a propensity for bonding to others, and forming close relationships (Fiske, Cuddy, Glick, & Xu, 2002). In contrast, men strive to improve their hierarchical position within groups, and in social situations, based on the dominant and competitive qualities associated with their gender role (Baumeister & Sommer, 1997). To that end, prosocial behaviours such as providing physical assistance and defending others are congruent with the idea of men wishing to achieve dominance and a hierarchical advantage (Baumeister & Sommer, 1997; Gardner & Gabriel, 2004); as well as the masculine idea of chivalry (Glick & Fiske, 2001). In contrast, prosocial behaviours such as comforting someone when upset and providing community

service are congruent with the relational emphasis within the female gender role (Eagly, 2009). Eagly therefore posits that ‘neither sex deserves recognition for delivering the majority of prosocial behaviour. Although both women and men deliver extensive help to others, they specialise to some extent in different types of behaviour’ (2009, p.649).

To date very little research has directly addressed the developmental origins of gender differences in the *expression* of prosocial behaviours. In particular, questions remain about when and how children and adolescents come to understand the different gendered notions of prosocial behaviour, the same notions that may influence the types of behaviour that adults perform. It can be suggested that adolescence is the beginning point of this process, during which adolescents may develop a more *heterogeneous* view of prosocial behaviour. This differentiation could be as a result of adolescents’ continuing cognitive development in evaluating the costs and benefits of prosocial behaviour (Black et al., 1980), their amassed social experience (Pearl, 1985), and increasingly complex motives behind prosocial actions (Bar-Tal et al., 1980). These continuing changes may lead to increasingly individualised and selective prosocial behaviour in late childhood and adolescence (Caplan, 1993; Hay, 1994; Nantel-Vivier et al., 2009). In other words, they still judge prosocial behaviours as good (and presumably label them as such), but may be aware that boys and girls can act prosocially in different ways. This process could also occur in response to the efforts of boys of finding ways to be prosocial that are also masculine – affording them the freedom to be both morally good, and adhere to social pressures. An important question therefore, is at exactly what age do young people understand that prosocial acts may be differentially gender-typed? Specifically, do younger children regard prosociality as a homogeneous concept, uninfluenced by gender considerations? Do older adolescents and adults regard prosociality as more heterogeneous, with specific behaviours aligned with particular gender roles and norms? And when does this transition occur?

In light of these questions, the present chapter pursued two goals. Firstly, to investigate age related differences in the gender-typing of prosocial behaviours (beyond the behaviours and methods used in Chapter 4). The first study in this chapter aimed to pinpoint when behaviours become gender-typed as a result of the increasing homogeneity of prosocial behaviour in adolescence. Principle components analysis was used to explore how different prosocial behaviours grouped together, based on adolescents' ratings of these behaviours as masculine or feminine, from 11-16 years. Secondly, this chapter seeks to understand the ways in which adolescents, at a key period in the development of prosocial reasoning (12-13-years-old), discussed and judged the relation between gender and prosocial acts. In the absence of prior research, a focus group study was employed to help identify some of the ways in which adolescents at this age speak about and experience the relation.

6.2 Study 1

6.2.1.1 Study Aims

As stated above, adolescents may gender-type some prosocial behaviours as feminine and others as masculine based on how the characteristics of those behaviours align with broader male and female gender roles. This may occur as boys try to balance the pressure to behave in a morally positive way (perform prosocial behaviours) and to behave in a way that pleases peers and adheres to gender norms (by performing prosocial behaviours that are more masculine). Chapter 4 in this thesis highlighted how four prosocial behaviours (comforting, sharing, giving and helping) are consistently female-typed. However, these behaviours do not represent the wide variety of prosocial acts that children, and in particular adolescents, undertake. In a focus group study by Bergin, Talley and Hamer (2003) adolescents mentioned and discussed 24 different prosocial behaviours, showing the diversification of prosocial behaviour as children grow older. This study therefore investigated how adolescents aged 11-16 years gender-

type a broad range of prosocial behaviours. Including more prosocial behaviours (24, from Bergin et al., 2003) will enable more specific gender-typing patterns to be explored, with particular attention on a possible transition from homogenous to heterogeneous gender-typing of prosocial behaviour.

6.2.1.2 Hypotheses and Research Questions

In this study, participants rated the 24 prosocial acts on a 5-point Likert-type scale of masculinity and femininity. The primary hypothesis concerned age-related differences in the gender-typing of items. The previous chapter revealed that moral judgements about prosocial behaviour are influenced by gender (specifically for boys) at 12-13 years. Furthermore, the association between girls and certain prosocial behaviours strengthens at this age, and may cause boys to seek ways to act prosocially that are more masculine. It was therefore predicted that the correlation between the behaviours used would be explained by different components from age 12-13 years onwards (and would not occur in 11-12 year olds). Specifically it was predicted that correlation between the behaviours will be explained by a feminine/neutral component, as well as a separate masculine component from age 12-13. Neutral behaviours (behaviours that do not obviously align strongly with the female gender role) will likely be rated similarly to feminine behaviours, as previous studies have shown that both feminine and neutral items garner feminine ratings in questionnaires (Zarbatany et al., 1985).

6.2.2 Methods

6.2.2.1 Participants

Recruitment

Contact was made with one secondary school in the area of Southampton (in South East England). This school had similar demographic properties to other schools used in this thesis. Initial contact was followed by a face to face meeting

to discuss the study further and work out technical details of administration. This meeting resulted in the school agreeing to take part in the study. Opt-out consent forms were sent to parents of participants two weeks prior to testing (Appendix 4). Any children that returned forms did not take part in the study.

Participant Information

Participants were 463 boys and 439 girls aged between 11 and 16 years old. Participants were separated into five age groups: 11-12 years ($n = 70$, $M = 11.74$, $\min = 11.21$, $\max = 12.20$, $SD = .29$, 29 boys, 41 girls), 12-13 years ($n = 156$, $M = 12.71$, $\min = 12.00$, $\max = 13.21$, $SD = .31$, 75 boys, 81 girls), 13-14 years ($n = 223$, $M = 13.72$, $\min = 13.22$, $\max = 14.56$, $SD = .31$, 117 boys, 106 girls), 14-15 years ($n = 231$, $M = 14.69$, $\min = 14.21$, $\max = 15.84$, $SD = .31$, 121 boys, 110 girls), and 15-16 years ($n = 219$, $M = 15.70$, $\min = 15.03$, $\max = 16.81$, $SD = .30$, 119 boys, 100 girls). Participants came from a single school located in the South-East of the UK. The majority of participants were White British (92%), with the remaining percentage from a range of ethnic backgrounds (predominantly Asian or Other White background).

6.2.2.2 Materials

Each participant was asked to complete a prosocial behaviour masculinity and femininity 5-point rating scale (Appendix 5). In this task participants were given 24 prosocial behaviours (shown in Table 6.1) to rate. They could choose from: very masculine (something mainly boys do), slightly masculine (something that mostly boys do but some girls do), neutral (something both boys and girls do), slightly feminine (something that mostly girls do but some boys do), and very feminine (something mainly girls do). 'Very masculine' was coded as -2, through to 'Very feminine' which was coded as 2.

6.2.2.3 Procedure

Participants were allowed to complete the questionnaire individually. They were strongly discouraged from conferring whilst completing the questionnaire. Completed questionnaires were returned to the researcher using the same register system. Participants were debriefed after the return of questionnaires, providing an explanation of the broad aims of the study.

6.2.3 Results

The 24 items were subjected to principle components analysis (PCA) using SPSS for each age group to identify age group differences. Inspection of the correlation matrix at each age revealed the presence of many coefficients of .30 and above at each age. The Kaiser-Meyer-Oklind values for each age are shown in Table 6.2. All exceed the recommended value of .5, and all achieve a value of between .70 and .90, described as ‘great’ (Kaiser, 1970, 1974) suggesting that the sample size at each age was sufficient. Furthermore Bartlett’s Test of Sphericity (Bartlett, 1954) reached statistical significance at each age, supporting the factorability of the correlation matrices. The PCA revealed six or seven components at each age (variances explained for each component are also shown in Table 6.2). Using Catell’s (1966) scree test, and inspecting cumulative variance explained, the number of components was chosen (described below). Using Kaiser’s criteria of eigenvalues of above one alone to retain factors was not appropriate here, as variable communalities (after extraction) did not consistently reach above .60 (Field, 2009). When applicable, a promax (oblique) rotation was applied to the factors. An oblique rotation was chosen because, although the two factors can be considered opposites – feminine vs. masculine – and therefore unrelated, all items are forms of prosocial behaviour, and the factors are still considered to be significantly related. Component correlations are presented in Table 6.3.

Table 6.1 The 24 Prosocial Behaviours Used in Studies 1 and 2

Source: Bergin, Hamer, Talley, 2003

Prosocial Behaviours		
1. Stands up for others	9. Shares	17. Admits mistakes
2. Provides emotional Support	10. Avoids fights	18. Apologises
3. Helps others develop skills	11. Keeps confidences	19. Does not make fun of others
4. Compliments and encourages others	12. Expresses happiness	20. Coaches others in social skills
5. Inclusive	13. Confronts others when wrong	21. Does not brag
6. Provides physical assistance	14. Provides community service	22. Good sport
7. Humorous	15. Honest	23. Willing to play
8. Peacemaker	16. Avoids hurting feelings	24. Calm – does not yell

11-12 years

At this age, an inspection of the scree plot revealed a break after the first component. The rotated solution (presented in Table 6.4) revealed that all variables loaded significantly on only one component. It was therefore decided that only one component could be identified. These results suggest that, at this age, prosocial behaviours are not rated differently based on masculinity and femininity.

Table 6.2 The Kaiser-Meyer-Oklin Values and Variances Explained by Each Component at Each Stage

Age	Kaiser-Meyer-Oklin Value	Variance Explained by Component						
		1	2	3	4	5	6	7
11-12 years	0.762	34.3	8.1	7.8	7	5.7	4.5	
12-13 years	0.804	25.3	10.3	7.2	6.2	5.3	5.2	
13-14 years	0.777	21	10.4	6.4	5.5	4.8	4.6	4.4
14-15 years	0.856	28	9.1	6.3	5.1	4.9	4.2	
15-16 years	0.840	25	9.34	6.4	5.9	5	4.4	

Table 6.3 Component Correlations at Each Age Group

Component	11-12 years		12-13 years		13-14 years		14-15 years		15-16 years	
	C1	C2	C1	C2	C1	C2	C1	C2	C1	C2
C1	N/A	-	.361	-	.206	-	.453	-	.103	
C2	N/A	.361	-	.206	-	.453	-	.103	-	

Table 6.4 The Loadings for Each of the 24 Prosocial Behaviour Items at Each Age

Item	11-12 years		12-13 years		13-14 years		14-15 years		15-16 years	
	1		1	2	1	2	1	2	1	2
Stands Up For Others	.611			.701		.481		.611		.550
Provides Emotional Support	.694	.309	.343		.656		.537		.642	
Helps Others Develops Skills	.622	.461			.453			.408	.507	
Compliments And Encourages Others	.674	.436			.592		.419		.614	
Inclusive	.602		.365		.381		.406		.461	
Provides Physical Assistance	.491		.604			.594		.763		.592
Humorous	.475		.746			.626		.813		.672
Peacemaker	.441	.531			.584		.611		.482	
Shares	.694	.624			.634		.531		.636	
Avoids Fights	.620	.725			.512	-.398	.700	-.338	.594	
Keeps Confidences	.606		.584		.322	.360		.436	.323	
Expresses Happiness	.575	.527			.475		.435		.568	
Confronts Others When Wrong	.524					.506		.439		.543
Provides Community Service	.463	.492			.334		.455		.624	
Honest	.613	.728			.475		.603		.554	
Avoids Hurting Feelings	.660	.727			.558		.780		.704	
Admits Mistakes	.624	.511			.458		.596		.619	
Apologises	.613	.595			.570		.583		.567	
Does Not Make Fun Of Others	.720	.718			.654		.677		.681	-.319
Coaches Others In Social Skills	.500		.335		.453		.471		.560	
Does Not Brag	.524	.365			.426		.532		.444	
Good Sport	.599		.576			.576		.652		.542
Willing To Play	.456		.663			.712		.721		.448
Calm Does Not Yell	.527	.710			.512		.558		.418	

Table 6.5 The Mean (Standard Deviation) Ratings for the 24 Prosocial Behaviour Items at Each Age

Item	11-12 years	12-13 years	13-14 years	14-15 years	15-16 years
Stands Up For Others	-.10 (.78)	-.28 (.85)	-.16 (.85)	-.23 (.87)	-.35 (.78)
Provides Emotional Support	.76 (.84)	.81 (.98)	.92 (.84)	.81 (.83)	.83 (.89)
Helps Others Develops Skills	.19 (.82)	.22 (.86)	.21 (.76)	.25 (.65)	.28 (.71)
Compliments And Encourages Others	.19 (.79)	.47 (.98)	.46 (.87)	.61 (.84)	.58 (.85)
Inclusive	.07 (.77)	.24 (.82)	.09 (.78)	.22 (.78)	.15 (.75)
Provides Physical Assistance	-.26 (.96)	-.22 (.99)	-.43 (.96)	-.47 (1.00)	-.58 (.91)
Humorous	-.10 (.68)	-.22 (.80)	-.33 (.83)	-.34 (.84)	-.38 (.76)
Peacemaker	.50 (.78)	.67 (.84)	.65 (.81)	.54 (.85)	.48 (.79)
Shares	.24 (.79)	.48 (.83)	.49 (.79)	.32 (.69)	.34 (.72)
Avoids Fights	.86 (.82)	.93 (.99)	.85 (.97)	.98 (.89)	.72 (.96)
Keeps Confidences	-.01 (.91)	-.19 (.96)	.04 (.82)	-.02 (.81)	-.04 (.87)
Expresses Happiness	.31 (.91)	.42 (.90)	.43 (.82)	.41 (.78)	.29 (.79)
Confronts Others When Wrong	-.10 (.99)	-.00 (.96)	-.19 (.94)	.01 (.97)	-.09 (.94)
Provides Community Service	.37 (.78)	.29 (.84)	.28 (.82)	.32 (.69)	.26 (.76)
Honest	.14 (.64)	.35 (.83)	.38 (.77)	.34 (.76)	.23 (.75)
Avoids Hurting Feelings	.54 (.79)	.62 (.81)	.68 (.83)	.55 (.85)	.53 (.76)
Admits Mistakes	.39 (.84)	.38 (.81)	.42 (.87)	.38 (.88)	.39 (.77)
Apologises	.34 (.91)	.47 (.93)	.57 (.81)	.47 (.85)	.48 (.79)
Does Not Make Fun Of Others	.36 (.90)	.58 (.83)	.55 (.83)	.61 (.75)	.49 (.75)
Coaches Others In Social Skills	.09 (.88)	.25 (.85)	.20 (.82)	.29 (.74)	.32 (.72)
Does Not Brag	.14 (.95)	.19 (.86)	.25 (.94)	.28 (.92)	.17 (.79)
Good Sport	-.16 (.99)	-.33 (1.00)	-.37 (.95)	-.29 (.93)	-.26 (.77)
Willing To Play	-.14 (.82)	-.15 (.85)	-.29 (.86)	-.29 (.84)	-.25 (.75)
Calm Does Not Yell	.26 (.93)	.51 (.91)	.52 (.88)	.31 (.94)	.28 (.88)

Note. -2 = Very masculine, -1 = Slightly masculine, 0 = Neutral, 1 = Slightly feminine, 2 = Very feminine

12-13 years

At this age, inspection of the scree plot revealed a break after the second component. It was decided that two components be retained for further investigation. To aid the interpretation of these two components, Promax (oblique) rotation was performed. The rotated solution (presented in Table 6.4) revealed the presence of simple structure (Thurstone, 1947), with both components showing a number of strong loadings, and all but two variables loading substantially on only one component (one loading on both, and one not sufficiently loading on either). The two factor solution explained a total of 35.6% of the variance, with component one contributing 21.3% and component two contributing 14.3%. Looking at the behaviours that load onto each component, it may be that the second component represents a masculine subset of prosocial behaviours that emerge from this age onwards. These are behaviours such as provides physical assistance and stands up for others, with are more direct, physical and involve possible confrontation.

13-14 years

An inspection of the scree plot again revealed a break after the second component and it was therefore decided that two components be retained for further investigation. Promax (oblique) rotation was performed and the rotated solution (presented in Table 6.4) revealed the presence of simple structure with both components showing a number of strong loadings, and all but one variable loading substantially on only one component. The two factor solution explained a total of 31.4% of the variance, with component one contributing 19.8% and component two contributing 11.6%.

14-15 Years

The scree plot again revealed a break after the second component and therefore two components were retained for further investigation. Promax (oblique) rotation was performed and the rotated solution (presented in Table 6.4) revealed the presence of simple structure, with both components showing a number of strong loadings, and most variables loading substantially on only one

component. The two factor solution explained a total of 37.2% of the variance, with component one contributing 21.6% and component two contributing 15.6%. It is also worth noting that components at this age are not 'pure', as component correlations reach above 0.4. Results at this age should therefore be interpreted with caution.

15-16 Years

In the final PCA, inspection of the scree plot revealed a break after the second component and two components retained. Promax (oblique) rotation was performed and the rotated solution (presented in Table 6.4) revealed the presence of simple structure with both components showing a number of strong loadings, and all but one variable loading substantially on only one component. The two factor solution explained a total of 34.9% of the variance, with component one contributing 25.0% and component two contributing 9.9%. By this age it becomes increasingly clear that these two components may represent behaviours that are rated as feminine or neutral (component one) and masculine (component two). Furthermore, these ratings may be based on how these behaviours align with broader gender roles, for example the differing communal (female gender role) and agentic (male gender role) characteristics of these behaviours.

For descriptive purposes, as well as comparison, the mean ratings for each item are displayed in Table 6.4. Items that are rated as more feminine have values closer to 2, and those rated as more masculine have values closer to -2. More neutral items will have values closer to zero. At 15-16 years it is interesting to note that the values for items that load strongly onto component two in Table 6.4 have strongly negative values in Table 6.5.

6.2.4 Discussion

This study investigated how adolescents aged 11-16 years old gender-type a wide variety of prosocial behaviours. Specifically, this study used principle components analysis to identify how prosocial behaviours grouped together based

on adolescents' ratings of those behaviours in terms of masculinity and femininity. This was to investigate whether adolescents make a transition from a homogenous view of prosocial behaviour (gender-typed in a similar manner, most likely feminine) to a heterogeneous one (gender-typed in a different manner, with some behaviours gender-typed as masculine).

It was predicted that the correlation between the 24 prosocial behaviours used would be explained by separate components from age 12-13 onwards, and this was supported. Only correlations between behaviours at age 11-12 were explained by one component, indicating that these behaviours were not rated significantly differently in terms of masculinity and femininity. It was further predicted that, when correlations between behaviours were explained by different components, that there would be two: feminine/neutral and masculine. This was supported. From age 12-13, a second component explains the correlation between behaviours such as: stands up for others, willing to play, provides physical assistance, keeps confidences, good sport, and (to a lesser extent) being inclusive and coaching others in social skills. Most of these behaviours (with the exception of keeping confidences) could be characterised as being either direct, involving physicality of some sort, dominance or competitive behaviour. These are characteristics that are representative of the male gender role (Bakan, 1966), and are a significant factor in the labelling of this component as the 'masculine' one. Participants in this study rated these items similarly to each other, and these were most likely rated as masculine (as indicated by Table 6.5). This suggests that from age 12-13, adolescents view some prosocial behaviours as masculine, or as behaviours that 'mostly boys do'.

Particularly interesting is the strong loading of 'humorous' onto the second masculine component from age 12-13 onwards. Humour has been linked to peer acceptance, likeability, and perceived social competence in children aged 4-7 years (Sletta, Søbstad, & Valås, 1995) and may be a form of prosociality in that it encourages positive social interaction. Boys in particular have been shown to use humour to gain status (Huuki, Manninen, & Sunnari, 2010) and power in social

groups (Hobday-Kusch & McVittie, 2002). Humour has also been shown to be included in sets of characteristics used to describe a boy as ‘popular-prosocial’ (de Bruyn & Cillessen, 2006). These studies suggest that boys are more likely than girls to utilise humour in positive social interactions with peers, and this is supported by the results from this study that show that humour (in a prosocial context) is male-typed.

The first component explained the correlation between behaviours that could be characterised as either involving emotion, being relational, or involving more communality; characteristics that are representative of the female gender role. These are behaviours such as: providing community service, avoids hurting people’s feelings, peacemaker, avoids fights, and helps others develop skills. This first component also explained the correlation between behaviours that could not clearly be characterised as distinctly belonging to either gender role, such as: honest, calm (does not yell), shares, expresses happiness and admits mistakes. All these behaviours, both the feminine and neutral, represent those which were most likely rated as more feminine by participants in the study, and are explained by the feminine/neutral component. Neutral items were most likely rated as more feminine as previous studies have shown that feminine and neutral items in questionnaires often both garner feminine ratings (Zarbatany et al., 1985). Some behaviours, such as providing emotional support are explained by both components, and some, such as confronts others when wrong are not explained by either component. This shows that age 12-13 years represents a time when adolescents may still be figuring out how certain prosocial behaviours are gender-typed.

At 13-14 and 14-15 years of age, the behaviours explained by the two factors remain largely similar. At age 15-16 the separation of behaviours is most clearly defined, with the correlation between a small group of six behaviours being explained by the second (masculine) component, and the other 18 behaviours explained by the first (feminine/neutral) component. Notably, by this age, providing emotional support loads strongly onto the first component as would

be expected from a behaviour involving emotion and with strong connotations with the female gender role. These results suggest that, by age 15-16 years, adolescents have a clear idea of which behaviours are more masculine, and which are feminine or neutral. This represents a transition in the understanding of adolescents from a homogenous view of prosocial behaviour – where all prosocial behaviours are the same both in their ‘good’ moral label and their relation to gender – to a heterogeneous view – where, whilst all prosocial behaviours are ‘good’, they have differing relations to gender. This study is important, as it gives an indication of the age at which this transition begins to occur, 12-13 years, and the age by which a heterogeneous view of prosocial behaviours becomes solidified, age 15-16 years.

6.3 Study 2

Results from Study 1 showed that, when provided with a wide variety of prosocial behaviours, adolescents gender-type some as masculine, and some as feminine or neutral. These behaviours appear to be grouped by qualities that are representative and similar to characteristics of male and female gender roles. For example, the masculine behaviours appear to be grouped by the broad characteristics of being physical, not being afraid of confrontation (or dominance), and are characterised by *agency*. This is in contrast to the more *communal* feminine/neutral behaviours that appear to have the broad features of being more relational and emotionally oriented. Age differences also showed that at age 12-13 years, adolescents make the transition from a homogenous view of prosocial behaviour to a heterogeneous one. At 11-12 years, adolescents show little variation in their gender-typing of prosocial behaviour, however, after 12-13 years, prosocial behaviours become separated and differentially labelled based on their characterisation in terms of masculinity vs. femininity. This age represents what appears to be a key period in the development of prosocial reasoning, and adolescents understanding of how gender relates to prosocial behaviour. It is

important to understand exactly how adolescents understand this relationship at this age, and the processes that are involved in the development of the differential gender-typing of prosocial behaviours. Therefore, in the absence of prior research, Study 2 employed focus groups to help identify some of the ways in which adolescents at this age express their understanding and their experience of this relationship.

6.3.1.1 Study Aims

This study used four focus groups of adolescents aged 12-13 years. These participants discussed, in groups of six or seven, how masculine or feminine, and how good or bad, various prosocial acts were. Focus groups were chosen because they allow participants, in interaction with each other, to speak for themselves, based on their own experiences, and in their own language (Patton, 1990). Moreover, there is an increased opportunity in this type of setting for peers to confront, question, and explore attitudes and reasoning in greater depth than might be possible in questionnaires or even interview. This is particularly important considering the exploratory nature of this study. In essence, our reasons for using focus groups were similar to those discussed by Bergin, Talley, and Hamer (2003). Specifically, focus groups were desirable because individual prosocial behaviours have a low frequency of occurrence; prosocial acts are often subtle, hard to detect, and involve a number of variables that change performance likelihood; and the presence of adults undoubtedly changes adolescents' behaviours, often rendering observations invalid. Using this more detailed and open format, this study investigated whether adolescents felt that: specific behaviours were performed more by boys or girls; some behaviours could only be performed by either boys or girls; whether peers were judged for performing behaviours that were not expected of them; and whether any factors altered the acceptability of boys and girls performing certain prosocial behaviours.

6.3.2 Methods

6.3.2.1 Participants

Twenty-seven 12-13-year-olds were randomly selected by the school and invited to take part in the study. The school was located in a predominantly middle-class area of the South East of the UK. The participants were mainly White British (only four participants came from other ethnic backgrounds). Participants were allocated at random into two same-sex groups and one mixed-sex group of seven (three boys, four girls), and one mixed-sex group of six (three boys, three girls). The composition of the groups was varied in order to cater for differences in conversational dynamics, for example boys lesser commitment to turn-taking and providing equal opportunities for input (Leman, Ahmed, & Ozarow, 2005). Opt-out consent forms were sent out to parents two weeks before the testing date (Appendix 4). Any participants that returned slips did not take part in the study.

6.3.2.2 Materials and Procedure

The sessions began with the selected participants coming to a small, quiet room away from distractions. The participants were then seated around a table. The moderator (author) began by introducing himself and asking the participants to do the same. The outline of the session was then presented by the moderator, detailing the planned tasks and explaining that there would be discussion after each task. The sessions lasted around 50 minutes. Participants were reminded that there were no 'right' or 'wrong' answers to the tasks and that they should try and discuss each choice to reach a consensus (but if they did disagree then this could be discussed also).

The moderator then introduced the first task. Each group was presented with a masculinity-femininity scale that was divided into three main sections: masculine, neutral, and feminine. Participants were then presented with 16 objects

to place along the scale - eight that are traditionally viewed as feminine (e.g. dollhouse, makeup) and eight traditionally viewed as masculine (e.g. football, cowboy guns). Participants were left to place these along the scale, and to discuss their choices. Following the completion of the task, the moderator led a discussion on why participants had placed objects where they had. The discussion was kept brief as this task would not be used for analysis and was primarily included to get participants thinking about gender stereotypes ahead of the other three tasks, in addition to familiarising them with the focus group format. When discussion after task one had reached a natural conclusion, the moderator outlined task two. This involved placing 24 strips of paper describing prosocial behaviours (shown in Table 6.1) along the same masculinity-femininity scale (these were the same 24 prosocial behaviours identified by Bergin et al., (2003). Prosocial behaviours were defined by the moderator as 'voluntary behaviour intended to benefit another', and as 'positive interactions with others'. The moderator encouraged discussion about the placement of different items on the scale.

Finally, participants completed two tasks that involved placing the 24 prosocial behaviours along a good-bad scale of moral judgement. Participants first had to imagine that a boy was performing these behaviours, and when completing the task for the second time, imagine it was a girl performing these behaviours. These tasks were designed to encourage participants to discuss the social judgements that occur when the gender of the person performing these behaviours is varied. After they had placed the behaviours, they were encouraged to discuss their placements and whether judgements might also change based on different factors. Examples of factors included audience (i.e., whether the behaviour was performed in public or in a one-to-one setting), urgency (i.e., how serious the problem was), and relationship (i.e., was the recipient a stranger or a friend). The moderator ensured that discussions remained open, free flowing, and honest, with the moderator providing prompts to stimulate further discussion of a topic but not dictating the nature or direction of conversation. Conversations were audio taped and transcribed.

6.3.3 Results

Thematic analysis was conducted on the data set in order to pinpoint, examine, and record patterns in adolescents' discussions about gender and prosocial behaviour, and is the most common form of analysis for qualitative data (Guest et al., 2012). This was achieved following the steps outlined for researchers using this approach (Braun & Clarke, 2006; Guest et al., 2012) involving a number of stages. In the first stage, each focus group recording was transcribed to form a data item. An example of a page from these data items is shown in Appendix 6. In the second stage, each data item was read thoroughly, at least two times. Whilst being read, initial codes were generated based on recurring concepts in specific data extracts. Initially, all data was considered, including any extracts that had nothing to do with gender and prosocial behaviour. After initial coding, any information that was irrelevant to the research aims of this particular study was excluded from further analysis. The third stage included taking the codes generated using relevant information and collating and comparing them to generate potential themes. In stage four, data items were re-read to check if potential themes corresponded with the data extracts identified in stage two, and with the data set as a whole. In the final stage, stage five, themes were defined and named. The data items were very 'noisy', as adolescents were hard to keep on task and often talked about things not relating to the research question. Therefore, liberal parameters were employed when deciding on the existence of themes. Two general rules were followed however. Firstly, extracts that constituted themes had to have been mentioned in at least three of the four groups. Secondly, they had to have been mentioned by at least two individuals within those three groups. Often agreement between focus group members (heard on tape) was used to verify the existence of a theme in this way. Six themes emerged from this analysis: (1) that anybody can act prosocially; (2) there are specific gendered prosocial behaviours; (3) the features of masculine prosociality; (4) the features of feminine prosociality; (5) judgements about prosocial behaviour; (6) context of prosocial

behaviour. The next section provides extracts from the data set that demonstrate the existence of these themes. All quotes are from participants aged 12-13 years (B = Boy, G = G, U = Gender Unknown).

(1) Anybody can act prosocially Adolescents were quick to point out that anybody was capable of acting prosocially, regardless of their gender. Participants discussed the morality of prosocial behaviours in terms of how prosocial behaviour is expected from everyone:

“I think there are also things that are expected of all genders... they’re [prosocial behaviours] seen as good things for all genders whether you’re a man or a woman you should, you’re seen as good if you do those things, and if you don’t do those things you are generally seen as a bad person” (U)

(2) There are specific gendered behaviours A number of behaviours were identified as explicitly more appropriate for boys or girls to perform, and were gender-typed in discussions that followed task 2. Identified as masculine were willing to play, confronts others when wrong, inclusive, stands up for others, and provides physical assistance. Behaviours identified as feminine were avoids fights, avoids hurting feelings, provides community service, peacemaker, and provides emotional support (see Table 6.6). This table only includes the behaviours that were explicitly mentioned by participants as being gendered.

Table 6.6 Behaviours Specifically Identified as Masculine and Feminine during Focus Group Discussions (as well as Examples from Focus Group Manuscripts)

Masculine Behaviours	
Willing to play	“Willing to play, most [boys] like join in and stuff”
Confronts others when wrong	“Confronts others when wrong, the thing is boys usually do, like if someone’s done something wrong they will usually go and confront them”
Inclusive	“[Inclusive] I’d say it was more of a boy thing...because girls have their really close friendship groups and boys are like yeah come on”
Stands up for others	“They see somebody else trying to tell them that they’ve done something wrong I think their friends [boys] are more likely to be like you shouldn’t say that”
Provides physical assistance	“It’s expected for a man [boy] to give physical support”
Feminine Behaviours	
Avoids fights	“Avoids fights...I think that would be more female”
Avoids hurting feelings	“The avoids hurting feelings one, they [girls] don’t really like, like hurting feelings, you know like I wouldn’t hurt Xs feelings, that’s really harsh, whereas boys would just do that anyway”
Provides community service	“Provides community service, I think that’s more of a female thing, I don’t think you see very many boys doing that”
Peacemaker	“Erm, peacemaker, I think that’s more of a female thing”
Provides emotional support	“[Provides emotional support] That’s more girly”

(3) The features of masculine prosociality Discussions revealed that there were certain characteristics that helped to group the behaviours identified as masculine above. Discussions revealed that masculine behaviours involve possible confrontation:

“I think because it’s like provides physical assistance, that’s more like, like if your mates being bullied and he’s like upset, boys are more likely to walk up to whoever’s bullying them and punch them in the face” (U)

Are direct and physical:

“Can I just say that like stereotypes are important, because men are like stereotypically stronger, and bigger, and have more muscles...like if they [boys] see a fight they would...go over” (U)

“[being a good girl] Be kind, and with feelings and stuff, whereas boys it’s like physical” (G)

And are largely performed in public/in front of larger audiences:

“I think boys are like...the bigger the crowd the better. The bigger the crowd they can show off more” (G)

(4) The features of feminine prosociality Discussions also revealed characteristics that could be used to group the behaviours labelled as feminine during discussions. Feminine behaviours can be characterised as focused on relationships:

“Because like I think, boys are more likely to just be like, oh I’ll just leave it, it’ll calm down in a bit but girls are more like kind of worried, so they don’t want their friends to be upset and argue and stuff, they just want everything to be happy” (G)

Involving emotion:

“Because, like girls, you kind of expect them...to...erm...provide emotional support because it’s kind of a girly thing to do, because they do it with their mates” (B)

“[with feminine prosocial behaviours] It’s more the emotional side of things” (G)

Involving avoiding confrontation:

“I think the avoids fights one is feminine, because most girls like to talk things over than rather getting physical to each other” (G)

“The, avoids fights thing, that’s kind of like, you wouldn’t really see girls squaring up to each other, and like punching each other and that sort of stuff” (B)

And being more interpersonal and private:

“[Who works behind the scenes?] Like the girls, they like don’t actually say it, face to face, but they try and make it alright” (U)

These results show that adolescents may label prosocial behaviours as masculine or feminine based on characteristics that fit with broader gender stereotypes and gender roles; the most obvious distinction being between agency and physicality (masculine) vs. communality and emotionality (feminine). These results show that prosocial behaviours, like a number of other behaviours as well as toy choice, activities and job choices, may be heavily influenced by gender norms and gender roles in early adolescence.

(5) Judgements of Prosocial Behaviours Discussions also revealed key themes regarding the acceptability of specific prosocial behaviours by boys and girls and

associated judgements. Participants discussed in great depth what their reactions would be if they saw a peer performing behaviours that were typically associated with the other gender. For example, if they saw a boy providing community service:

“Like if a boy did something for the community, they would get...a lot of stick [criticism/abuse]” (B)

Or providing emotional support:

“Because it just seems a bit abnormal, like most of them don’t provide emotional support...these things are really just like describing the, like if you thought of like the ideal man...a couple of years ago, or many years ago, they’d be like all strong, and they would fight...not really show their emotions” (U)

Or why a girl would not provide physical assistance:

“But the thing is, I do notice that, say, say someone’s hurt and I’ve seen it happen and then a lot of the girls will just stand there, their close friends will just stand there and be like, they’re too worried to do anything, because of the way they’ll be perceived by the others” (G)

Furthermore, adolescents at this age make predictions about peers’ expected and future behaviour in prosocial scenarios based on their gender. For example participants in one focus group agreed that a boy will be unlikely to comfort a friend when they are crying, because this transgresses gender boundaries and is seen as too ‘sissy’ or ‘girly’:

“[Why would coaching others in social skills be bad]...It would make them more girly...it would make them different” (U)

Discussions also revealed that peers may have a significant role in shaping adolescents gender-typed prosocial behaviours, by providing negative judgements

when peers perform gender atypical behaviours. This also appears to be more severe for boys:

“[When doing community service]... He’d get a lot of banter and stick for it. Say a guy went out and like, worked in a nursing home or something, he’d a get a load of stick for it when he come back to school” (B)

(6) Context of prosocial behaviour Finally key contextual factors emerged from discussions that influenced how acceptable certain behaviours were for boys or girls. The most important distinction was between a personal and a public setting (for example in a one-to-one scenario versus a group of friends). Although it wasn’t specifically discussed in this study, it can be assumed that adolescents could perform prosocial behaviours that were gender typical in any context, as they would carry positive judgement. However, for gender atypical prosocial behaviours, discussions revealed that participants were more likely to perform these in one-to-one settings (away from peers) presumably to avoid judgement. Typically feminine behaviours, such as providing emotional support, were more/only acceptable for boys to perform if they were in one-to-one scenarios, but not in groups:

“Boys like would be comforting to people if their friends weren’t around” (U)

Typically masculine behaviours, such as providing physical assistance, were also more acceptable for girls to perform if they were in one-to-one scenarios rather than in front of a large group:

“I wouldn’t like that, like I know it sounds really horrible but it’s really hard to help someone when there is loads of people around, cos you’ve gotta act, like you’ve got to conform to what the others are doing, you know if everyone else like doesn’t do anything, it’s like well I’m not gonna do anything” (G)

6.3.4 Discussion

This study used focus groups to investigate whether adolescents aged 12-13 felt: that specific behaviours were performed more by boys or girls; that behaviours could only be performed by either boys or girls; that peers were judged for performing behaviours that were not expected of them; or that any factors altered the acceptability of boys and girls performing certain prosocial behaviours. This study built upon previous research with adolescents on prosocial behaviour that did not specifically investigate gender-typing (Bergin et al., 2003). Focus groups were chosen as they allowed adolescents to speak openly and freely about the topics presented, and in their own words. It was due to the characteristics of this research approach that this study gained valuable and extensive insight into how adolescents view gender to relate to prosocial behaviour.

Throughout discussions, explored in detail above, adolescents identified with the moral aspect of prosocial behaviour, by identifying that anybody could perform prosocial behaviours. However, there were a number of prosocial behaviours (from the 24 used) that were identified as specifically masculine or feminine (or something that boys or girls 'do', or do more). Chapter 5 showed that at 12-13 years boys experience a conflict between their moral pressures (to be a good boy) and their social pressures (to be a good example of a boy) with regards to prosocial behaviour. It was argued that this conflict arises as prosocial behaviour is female-typed in childhood and adolescence. One possible avenue for resolution of this conflict, is for boys to identify and perform prosocial behaviours that are more masculine in their characteristics to satisfy both the moral obligation to be 'good' and their social obligation to conform to gender norms and roles. This study provides support for this theory, as some prosocial behaviours are specifically labelled as masculine, it could be that boys have identified these as 'their own' and perform these more.

In further support of this argument, the behaviours identified as masculine or feminine are characterised by qualities that are congruent with the male and female gender role respectively. Characteristics were identified from adolescents' discussions that categorised masculine behaviours as involving confrontation, direct/physical, and more likely to be performed in public. Characteristics were also identified from discussions that categorised feminine behaviours as relational, involving emotion, avoidant of confrontation and more interpersonal/private. These features are parsimonious with the distinction between the male and female gender roles as agentic versus communal respectively (Bakan, 1966; Spence & Buckner, 2000), as proposed by social role theory (Eagly, 1987; Eagly et al., 2000). The increasing division between masculine and feminine prosocial behaviours in adolescence based on gender role characteristics could be the precursor to the divisions highlighted in research using adults (Burleson & Kunkel, 2006; Eagly, 2009; Eagly & Crowley, 1986; Eagly & Koenig, 2006). Interestingly, under some circumstances certain antisocial behaviours (e.g. aggression, confrontation, and possible physical contact) may constitute prosocial behaviour for boys. Prosocial is clearly a complicated concept for boys, and the gendered characteristics of these behaviours may even be important in determining the positive or negative morality of said behaviours.

The distinction between agentic characteristics for masculine behaviours and communal characteristics for feminine behaviours could be a representation of adolescents' understanding of how boys and girls practice moral exemplarity. Research has shown that moral exemplars (or moral role models) can be conceptualised in different ways, such as by the differing motivations of justness, braveness and caregiving (Walker & Hennig, 2004). In addition, agency and communality feature in peoples motivations for and descriptions of moral exemplarity, often together (Walker & Frimer, 2009). When examining literary and historical moral exemplars, agency and communality are often identified as motivations for action, with agency acting as a means to an end for communal motivations. It could be that, as adolescents development cognitively and morally,

they seek ways to be prosocial and to act similarly to their moral exemplars in ways that are also congruent with their gender roles. If agency and communality are motivations and conceptualisations of moral exemplarity, boys and girls may gravitate to these different conceptualisations across adolescence.

The final themes identified from discussions involved the judgements that peers make upon performance of prosocial behaviours by peers, as well as the contexts in which gender-typed behaviours were likely to be performed. Adolescents at this age readily chastised peers who performed prosocial behaviours associated with the opposite sex, and did so much more harshly with male peers than female peers. Boys are discouraged by peers across childhood not to engage in cross gender activities and to not play with opposite gender toys to a much greater extent than girls (Carter & McCloskey, 1984; Fagot, 1985). Boys have also been shown to feel much greater pressure to not be like the opposite sex than girls (Egan & Perry, 2001), and that the pressure to conform to gender roles is greatest in early adolescence around age 12 to 13 years (Rae Clasen & Brown, 1985). This study shows that discouragement and reinforcement by peers applies to prosocial behaviour (a moral behaviour) also. This demonstrates the important role that peers have in reinforcing the gender-typing of prosocial behaviours. The importance of peer judgement is further reflected in adolescents' discussions of the context in which prosocial behaviours are performed. Adolescents highlighted that gender atypical behaviours could be performed in private, presumably as it avoids social judgement incurred when performing these behaviours in public (or in front of an audience of some kind). It also appeared that this was a greater concern for boys than girls. This study provided valuable insight into how prosocial behaviours are gender-typed, how this gender-typing occurs in relation to broader gender role characteristics, and how peer judgements help to create and maintain this gender-typing.

6.4 General Discussion and Implications

The two studies in this chapter explored what adolescents understand the relationship between gender and prosocial behaviour to be, and whether they believe that boys and girls are prosocial in different ways. Approaching these questions from both a quantitative and qualitative angle allowed for the identification of age differentiated gender-typing patterns across adolescence, as well as an insight into underlying processes that help create and reinforce these patterns. Learning how and to what extent adolescents gender-type prosocial behaviours will help in understanding gender differences in prosocial behaviour, and in encouraging successful positive interaction between boys and girls in adolescence.

It is clear, from both studies, that in adolescence the relationship between gender and prosocial behaviour changes. As shown by Study 1 before 12-13 years adolescents similarly gender-type all prosocial behaviours. Prosocial behaviours are most likely still thought of in a mainly moral (as opposed to social) context, with children recognising that girls may just perform more of these behaviours. However, at and after age 12-13, adolescents appear to progress from a homogenous view of prosocial behaviour to a heterogeneous one. Prosocial behaviours are related to gender differently, and are gender-typed with greater complexity. Furthermore, this gender-typing appears to occur based on the characteristics of the behaviours in reference to defining characteristics of broader gender roles. As such, masculine prosocial behaviours are those that are more direct/physical, confrontational, and dominant, and feminine prosocial behaviours those that are emotion based, relational, and communal. This could be part of the process in adolescence of selecting specific prosocial behaviours to form an individualised set of prosocial behaviours (Nantel-Vivier et al., 2009). In other words, as prosocial behaviours themselves become more varied, adolescents may identify prosocial behaviours that suit them as an individual (and their gender).

This could also be part of the process that boys go through in order to satisfy their competing moral and social ‘prosocial pressures’.

The categorisation of these behaviours may reflect the types of behaviours that boys and girls choose to perform in everyday scenarios. For example, girls may choose to perform more female-typed prosocial behaviours and boys more male-typed ones. We can therefore see that the distinction between different types of prosocial behaviour (in terms of gender-typing) could be limiting, in the sense that adolescents may ‘stick to’ their own prosocial behaviours – especially boys. Adolescents in Study 2 discussed how peer reactions help to influence the behaviours that they (both personally and as a gender group) would or would not perform. For example, boys felt they could only provide emotional support in a one-to-one setting (presumably as the social judgement is too great in a group setting). This raises important questions about whether the separation of behaviours into ‘our’ and ‘theirs’ gendered categories could provide substantial motivation, not to stop being good, but to only be good in a certain way.

6.4.1 Limitations

There were several limitations to these studies. Firstly, regarding sample age, an argument could be made for including younger children, as the transition from homogeneous to heterogeneous prosocial behaviour is on-going and occurs across development. However, previous research has stated that prosocial behaviours become individualised in adolescence (Nantel-Vivier et al., 2009) and that changes in moral judgements about prosocial behaviour occur around 12 years. Therefore it was practical to focus on this particular age, as well as the ages just before this change occurs, and the ages just after, to track the progression of this change. A further limitation concerns the behaviours used. Whilst clarification was offered in the focus group study to any participant that did not understand what each prosocial behaviour entailed, descriptions were not included *with* the behaviours in either study. This means that some behaviours may have

been open to interpretation (such as ‘inclusive’ and ‘good sport’). To that end, it may have been prudent to give descriptions in order to ensure more accurate responses. This decision was taken however to ensure that the questionnaires in Study 1 were not too bulky, and overwhelming, and so that the tasks in Study 2 were more straightforward.

A limitation specific to Study 1 is the decision to retain only two components at each age group, and the resulting lack of cumulative variance explained by these two components. The decision for retaining two factors is outlined in the results section of this chapter, and is statistically justified. However it is clear from the lack of variance explained by these factors (~35%) that other factors may also be influential in adolescents’ ratings of these behaviours. As mentioned in Chapter 2, numerous other factors including individual differences and situational variations may play some part in how these behaviours are rated. These results should therefore be viewed with caution, despite their apparent clarity.

A limitation specific to Study 2 is the use of thematic analysis to explore participants’ discussions. Whilst this approach was both appropriate and insightful for this particular data set, these methods are still undergoing growth and clarification in regards to identifying a unified methodology with set guidelines (Braun & Clarke, 2006). The results here are therefore more subjective than those achieved through other forms of analysis. Further research therefore is certainly required to understand better the processes responsible for the change from homogeneous to heterogeneous prosocial behaviour. Future studies should focus on establishing groundwork for theories on how prosocial behaviour becomes gender-typed, and how this interacts with the moral considerations accompanying these behaviours, using both quantitative and qualitative approaches. A further limitation to using thematic analysis is that this is to some extent still an empirical approach, and was conducted on discourse that was specifically designed to focus on gender. Other approaches from a social constructionist viewpoint might focus more heavily on identifying reference to prosociality and gender in a more natural

occurring discourse. However, the present studies were undertaken in full knowledge of their exploratory nature and, as such, proved to be extremely informative. Furthermore, the statistical approach used worked well with the data, and provided edifying results. An additional limitation concerning analysis is the lack of a separate, independent coder. This would have been helpful for establishing themes and cross-referencing results and conclusions. However, due to limitation of resources a second coder was not available. These results should therefore be interpreted with caution, but are no less robust.

One final limitation concerning Study 2 was the impact of the focus group facilitator on discussions and, more specifically, their gender. Ideally, the gender of the facilitator would have been matched to the gender of the focus group for same-sex groups, and two facilitators (one of each gender) would have been present for mixed-groups. The presence of a male facilitator in all groups may have affected the responses given by participants and unfortunately due to practical limitations only a male facilitator was available. The focus group discussions however are still rich and yield interesting results.

6.4.2 Conclusion

This study shows that the gender-typing of prosocial behaviours as feminine and masculine becomes clearer and more distinct throughout adolescence. This developmental pattern may provide the basis for gender differences in prosocial behaviour in adulthood (Eagly, 2009; Eagly & Koenig, 2006). The emergence of a separate masculine prosocial 'niche' may also provide boys with an opportunity to balance the competing moral and social pressures identified in the previous chapter. It is important to understand how gender relates to prosocial behaviour, as it may be a key factor for adolescents in the decision to perform prosocial behaviours in everyday life. A positive note to be addressed is that boys may not be as limited as initially thought. Indeed they appear to find a way to alleviate the pressure from peers to avoid acting like a girl by performing

prosocial behaviours, by performing more masculine prosocial actions. However, these results also indicated that the gender-typing of prosocial behaviour is still limiting, and in some respects prevents both boys and girls from fully expressing themselves in a positive manner. Finally, age 12-13 appears to be a key developmental period where adolescents change from a homogeneous to heterogeneous view of prosocial behaviour. Future research should consider targeting interventions at this age group to minimise the role of gender in ‘closing off’ some form of prosocial behaviour to boys and girls.

Chapter 7: Gender Typicality Beliefs about Prosocial Behaviours Predict Reports of Behaviours in Boys and Girls

The gender-typing of prosocial behaviours by adolescents, as shown in the previous chapter, is most likely representative of general underlying beliefs about how boys and girls *should* behave prosocially. As such, these beliefs will inform both adolescents own prosocial behaviour and their reactions to the prosocial behaviour of others. In that, adolescents will endeavour to act in line with the gender-typed beliefs they hold, performing more gender-typical behaviour and less gender atypical behaviour. They will also encourage peers to do the same, by providing positive reactions to gender typical prosocial behaviour, and negative reactions to gender atypical prosocial behaviour. It is therefore important to investigate the gender typicality beliefs of adolescents about prosocial behaviour further, as these beliefs may provide an important part of the decision making process that adolescents go through when deciding whether or not to perform certain prosocial actions. It is also important to investigate whether the pressure felt by peers to not act like the other gender influences the prosocial behaviours that adolescents choose to perform. This is because peers not only provide an important motivation for adolescents' gendered prosocial behaviour (as shown in the previous chapter), but are also the more general enforcers of gender stereotypes (Blakemore et al., 2009).

The present study therefore investigated how (a) adolescents' beliefs about gendered prosocial behaviours predicted their reports of performing those behaviours; and (b) how felt pressure (from peers, parents, and self) predicted reports of gendered prosocial behaviour. As shown in the previous chapter, masculinity-femininity ratings of prosocial behaviours (as well as focus group discussions) suggested that adolescents hold beliefs about which behaviours boys

and girls should perform. Therefore, a new scale was created (the gender typicality of gendered prosocial behaviour scale – or GTGPB) to measure these beliefs directly, and to act as the first predictor variable. Furthermore, focus group discussions also indicated that there was substantial pressure, particularly from peers, to *not* perform gender atypical prosocial behaviour. Therefore, the felt pressure scale (measuring pressure from peers, parents and the self to *not* act like the other sex – see Egan & Perry, 2001) was chosen as the second predictor variable.

7.1 Introduction

As explored in Chapter 2, much behaviour becomes gender-typed across childhood, laying the foundations for gender stereotypes across development. For example, children show preferential looking for stereotyped toys as early as 18 months; boys prefer looking at vehicles, and girls prefer looking at dolls (Serbin, Poulin-Dubois, Colbourne, Sen, & Eichstedt, 2001). Activities also become gender-typed. For example, climbing trees and rough-housing are gender-typed as masculine; playing house and doing arts and crafts are gender-typed as feminine (Blakemore et al., 2009). In addition, children's friendship choices follow distinct patterns based on gender, namely that children prefer to have peers of their own gender as playmates (Maccoby, 1998). The gender-typed beliefs children hold influence the behaviour they themselves choose to perform. For example, children express their gender-typed toy preferences when choosing toys (O'Brien, Huston, & Risley, 1983). Moreover, researchers have found that girls prefer playing with dolls, kitchen toys, and fashion and make-up, and that boys prefer playing with army toys, sports equipment, and transportation toys in a variety of settings (Blakemore et al., 2009). Children also increase the amount of time they spend with same-gender peers over childhood as the gender-typed behaviours they perform in those groups are continually reinforced (Martin & Fabes, 2001). Put

simply, children not only gender-type behaviour from a young age, but the beliefs they hold influence the behaviours they choose to perform.

As detailed in the previous chapter, both in quantitative and qualitative measures, adolescents gender-type specific prosocial behaviours as either feminine, masculine, or not gender-typed at all (i.e., they are neutral in terms of gender). In quantitative measures, adolescents rated the degree to which prosocial behaviours were feminine or masculine. This is indicative of adolescents' broad gender beliefs about these behaviours, and how much they believe boys and girls perform these behaviours in relation to each other. What remains unclear is whether adolescents believe that their gender group *should* act in accordance with the gender-typing of these behaviours. For example, in discussions, adolescents rarely used expressions involving phrases like 'I think boys/girls should...' which would indicate the extent to which they feel others should perform in gender typical ways. Also unclear is whether adolescents' beliefs about how the gender group should act correspond to their own behaviour. This study investigates these issues. Specifically, whether adolescents believe their own gender should perform more gender typical prosocial behaviour than atypical behaviour; as well as whether those beliefs predict adolescents' own behaviour.

In addition to the gender-typing of prosocial behaviours, focus group discussions in the previous chapter also highlighted the role that peers have in enforcing and reinforcing these gender categorisations. For example, many adolescents said that they would avoid certain behaviours because of the negative judgements they would receive from peers. Studies have shown that peers negatively judge both boys and girls when they engage in gender atypical activities (Carter & McCloskey, 1984; Fagot, 1977, 1985). Research has also shown that children respond to these reactions; those who are rewarded for gender stereotypical behaviour persist longer in those actions, while children who are punished for counter-stereotypical behaviour will tend to stop performing those actions (Lamb, Easterbrooks, & Holden, 1980; Lamb & Roopnarine, 1979). Furthermore, children play less with counter-stereotypical toys, and describe

themselves as more gender-typical in terms of their toy and activity preference in the presence of peers than when alone (Banerjee & Lintern, 2000; Serbin, Connor, Burchardt, & Citron, 1979). As indicated in focus group discussions, adolescents may perform more gender-typical prosocial behaviour (and less atypical behaviour) as a result of judgements they receive from peers, and the pressure to conform to stereotypes.

The felt pressure scale, developed by Egan and Perry (2001) measures the degree to which children feel pressure from their parents, peers, and themselves, to conform to gender stereotypes. The scale measures how children and adolescents perceive and understand the gender beliefs of others, it is only through acknowledgement of those beliefs that children and adolescents feel pressure to conform to them. It is one of three constructs in the multidimensional analysis of gender identity, along with gender compatibility and intergroup bias. These constructs are not strongly related, but all have an important role in psychosocial adjustment. Namely, self-perceived gender-typicality has a positive relationship, felt pressure has a negative relationship, and intergroup bias has a varying relationship to adjustment, depending on the measure (Egan & Perry, 2001). In terms of gender, it is clear that the opinions and attitudes of peers are important to global self-worth and perceived social competence (the two measures of psychosocial adjustment used). As a result, children and adolescents may yield to the pressure from peers and conform to the expectations of others in order to feel better about themselves by reducing their felt pressure and increasing their gender-typed behaviour. Conformity is the act of matching attitudes, beliefs, and behaviours to group norms (Cialdini & Goldstein, 2004). If children and adolescents feel pressure to conform to gender stereotypes, they may try and modify their behaviours in response to that pressure. If adolescents put pressure on peers to conform to gender beliefs about prosocial behaviour, both boys and girls may respond by performing more gender-typical prosocial behaviours (and less gender atypical ones). This may be in order to please peers and meet their expectations, as well as to satisfy the internal pressure they feel to act prosocially

in a gender-typical way (self felt pressure). This study investigates the role of felt pressure in predicting reports of gendered prosocial behaviour, whilst accounting for the possible relationship between these variables.

7.1.1 Study Aims

Studies 3 and 4 showed that adolescents gender-type some prosocial behaviours as masculine and some as feminine (see Chapter 6). What remains unclear is whether these gender beliefs influence or predict the performance of gender-typed prosocial behaviours. This study investigated whether adolescents' beliefs about whether their gender group *should* perform gendered prosocial behaviours predicted their reports of performing those actions. This involved the creation of a new scale to measure these beliefs, combining novel items, but tried and tested measurement techniques. The new scale included both male- and female-typed prosocial behaviours (identified in Chapter 6). The same behaviours were used in both the belief and the report scales to ensure high compatibility. It is important to investigate the relationship between gender beliefs about prosocial behaviour and reports of those actions in order to effectively target interventions designed to achieve changes in behaviour. Furthermore, much research into gender differences in prosocial behaviour focuses on just that, *behaviour*. Very little attention has previously been paid to investigating the beliefs of children and adolescents about gender and prosociality.

This study also investigated the importance of the gender beliefs of others in predicting reports of prosocial behaviour. As stated, some prosocial actions appear to be gender-typed. This gender-typing informs adolescents' gender stereotype knowledge, and allows them to make predictions and judgements about the behaviour of others. If adolescents feel increased pressure to conform to gender stereotypes, this may influence the prosocial behaviours they perform. In Chapter 6, adolescents discussed the judgements they would receive, from peers in particular, were they to perform gender atypical prosocial behaviours. This,

theoretically, could represent pressure from peers to not 'be like' the other gender, or to not conform to other-gender gender stereotypes. Therefore, felt pressure from peers, parents, and from the self was used to predict reports of prosocial behaviour, as adolescents may perform more or less of these behaviours in order to conform to this pressure.

7.1.2 Hypotheses and Research Questions

Our first four hypotheses concern gender differences in beliefs about prosocial behaviour. It was predicted that participants would hold beliefs in line with the gender-typing of these behaviours. Specifically, it was predicted that boys would think that boys should perform masculine prosocial behaviours more than girls think that girls should (hypothesis 1). Furthermore, it was predicted that girls would think that girls should perform feminine behaviours more than boys think that boys should (hypothesis 2). It was also predicted that boys would think that boys should perform more masculine behaviours than feminine ones (hypothesis 3), and that girls would think that girls should perform more feminine behaviours than masculine ones (hypothesis 4). In this sense it was predicted that participants' gender beliefs about prosocial behaviour would reflect the gender-typing of those behaviours as described in the previous chapter.

A further four hypotheses were made regarding gender differences in reports of prosocial behaviour. It was predicted that participants would report differing levels of masculine and feminine prosocial behaviour in line with the gender-typing of said behaviours. These hypotheses followed a similar structure to those above regarding beliefs. Specifically, it was predicted that boys would report more masculine prosocial behaviour than girls (hypothesis 5), and that girls would report more feminine prosocial behaviour than boys (hypothesis 6). Furthermore, it was predicted that boys would report more masculine than feminine prosocial behaviour (hypothesis 7), and that girls would report more feminine than masculine prosocial behaviour (hypothesis 8). No predictions were

made specifically about gender differences in felt pressure, as this was not the focus of this study.

Two further predictions were made regarding the relationship between adolescents' gender beliefs, felt pressure, and reports of prosocial behaviour. Specifically it was predicted that the gender beliefs of adolescents would significantly and positively predict adolescents' reports of both masculine and feminine prosocial behaviour (hypothesis 9). It was also predicted that felt pressure would significantly predict adolescents' reports of masculine and feminine prosocial behaviour, but not as strongly as beliefs would (hypothesis 10).

7.2 Method

7.2.1 Design

This study used a between-subjects design with two factors: participant gender (with two levels: boys and girls) and age group (with five levels: 11-12, 12-13, 13-14, 14-15, and 15-16 years). The five age groups correspond to the UK secondary school years 7 through 11. These ages were chosen due to previous findings in this thesis that early adolescence is a key period in the gender-typing of prosocial behaviours (see Chapter 6). The dependent variables were gender typicality of prosocial behaviour beliefs, reports of prosocial behaviour, and felt pressure (all measured using a standard 5-point Likert scale).

7.2.2 Participants

Recruitment

Recruitment consisted of contacting one secondary school in Southampton (in South East England) with which the researcher had an existing relationship. This was the same secondary school that was used in Chapter 6, and the selection criteria and contact procedure were the same as those used in Chapter 6 (see

section 6.2.2). Opt-out consent forms were sent to parents of participants two weeks before testing (Appendix 7).

Participant Information

Participants were 515 boys and 483 girls from one secondary school in a suburban area in the South East of the United Kingdom. The participants ranged from 11 to 16 years in five age groups: 11-12 years ($n = 125$, $M = 11.74$, min = 11.21, max = 12.77, $SD = .31$, 61 boys), 12-13 years ($n = 185$, $M = 12.71$, min = 12.21, max = 13.21, $SD = .31$, 88 boys), 13-14 years ($n = 230$, $M = 13.73$, min = 13.22, max = 14.56, $SD = .31$, 124 boys), 14-15 years ($n = 236$, $M = 14.69$, min = 14.13, max = 15.21, $SD = .29$, 124 boys) and 15-16 years ($n = 122$, $M = 15.69$, min = 15.03, max = 16.21, $SD = .29$, 118 boys). Most participants were White British (92.2%), with the remaining percentage from various ethnic minorities (including White and Asian, and Other White Background)

7.2.3 Materials

The materials were identical for all age groups. Participants were asked to complete a questionnaire containing three sections: the felt pressure scale, the gender typicality of gendered prosocial behaviour scale, and self-reports of gendered prosocial behaviour.

Felt Pressure

The felt pressure scale used in this study consisted of questions relating to how much pressure participants felt to not be like the opposite gender from peers, parents and themselves (self) (see Appendix 8). This was adapted from Egan and Perry's (2001) felt pressure scale by England, Martin, Zosuls, and Andrews (personal communication, October 1, 2012). Participants answer the questions regarding their own gender group. The scale is divided into three subsections: felt pressure from peers (e.g. "Other kids would be upset if I wanted to play with

girls' toys”), parents (e.g. “My parents would be upset if I wanted to do an activity that only girls do”) and the self (e.g. “I would get really mad if someone says I was acting like a girl”). Participants rated their felt pressure on a standard 5-point Likert scale (from ‘Not At All’ – 1, to ‘A lot’ – 5).

In addition to reliability analysis run by England, Martin, Zosuls, and Andrews (personal communication, October 6, 2012), internal consistency reliability was tested for the scale as a whole and on the three subscales. The Cronbach’s alpha coefficient for the whole scale was .92, for the peers subscale was .84, for the parents subscale was .89, and for the self subscale was .82. These values demonstrate the high internal reliability of this scale both on the whole and subscale level.

Gender Typicality of Gendered Prosocial Behaviours Scale (GTGPB)

This scale was created specifically for use in this study to measure beliefs about how much participants think their own gender should perform both male- and female-typed prosocial behaviours (see Appendix 9). A male and female version of the questionnaire was created (and administered to boys and girls respectively) to make it easier for boys and girls to answer in reference to their own gender. The eight behaviours included in the scale were four male-typed and four female-typed behaviours identified in focus groups in the previous chapter (see section 6.8). The four male-typed behaviours were: providing physical assistance, willing to play, standing up for others, and being inclusive. The four female-typed behaviours were: providing emotional support, avoiding fights, avoiding hurting feelings, and providing community service. One male-typed behaviour (confronts others when wrong) and one female-typed behaviour (peacemaker) from those focus groups were omitted through human error when creating the scale (see limitations section in this chapter for further discussion on this point - 7.4.2). All questions in this scale followed a similar format. Specifically, participants were asked “I think that [boys or girls] should

[behaviour] (for example [example of behaviour])”. Participants rated their beliefs on a standard 5-point Likert scale (from ‘Disagree’ – 1, to ‘Agree’ – 5).

Internal consistency reliability was assessed using Cronbach’s alpha. The Cronbach’s alpha coefficient for the scale as a whole was .7. This just reaches the desired level of ‘acceptable’. The Cronbach’s alpha coefficients for the masculine and feminine subscales were .56 and .54 respectively, placing these subscales in the ‘poor’ category (although they are not under 0.5, which would have been unacceptable). These alpha values could not be improved by the removal of items. As such, whilst still valuable, the results presented in this chapter should be interpreted with caution (see the limitations section – 7.4.1 – for further discussion). In addition to internal reliability, test-retest reliability was examined. This was achieved by administering the scale twice to 10 adults (aged between 21 and 30) with a period of seven days separating the two test points. The 10 adults answered the scale exactly the same in both administrations, as there was a perfect correlation between the two test points, $r = 1.00$, $p < 0.001$. This demonstrates that the scale is robust across multiple administrations. However the test-retest reliability was conducted with adults, and not adolescents, and should be interpreted with caution also.

Gendered Prosocial Behaviour Reports

Participants were asked to report on their own prosocial behaviours also. The eight behaviours used in this scale were the same as those used in the GTGPB scale, and were presented in the same order (see Appendix 9). The format for all questions in this section was the same. Specifically participants were asked, “How often do you [behaviour] (for example [example of behaviour])”. Participants reported levels of prosocial behaviour on a standard 5-point Likert scale (from ‘Never/Almost Never’ – 1, to ‘Always/Almost Always’ – 5).

7.2.4 Procedure

Questionnaires were distributed at the start of a school class by teachers. Participants were read a short description of the study (that did not include information to impact participants' responses) and given the questionnaires. Participants completed the questionnaires individually, and returned these to the teacher when completed. When a whole class was finished, the participants were given a short debrief about the aims of the study.

7.3 Results

A two (participant gender) x five (age group) between-subjects ANOVA was computed for both masculine and feminine behaviours to assess differences in participants belief scores of gender typicality of gendered prosocial behaviour by their own gender.

7.3.1 Gender Typicality of Gendered Prosocial Behaviour (GTGPB) - Beliefs

Masculine Prosocial Behaviour Beliefs

For masculine prosocial behaviour beliefs there was a main effect of participant gender, $F(1, 988) = 41.46$, $p < 0.001$, $\eta^2 = .04$, indicating that girls rated that girls should perform masculine prosocial behaviours ($M = 4.15$, $SD = 0.61$) more than boys rated that boys should perform masculine prosocial behaviours ($M = 3.87$, $SD = 0.63$). The ratings by girls are surprising, as they are rating that they should perform more of the behaviours that are gender atypical than boys are rating that they should perform the behaviours that are gender typical. The means and standard deviations for adolescent boys' and girls' belief scores (for both masculine and feminine behaviours) are shown in Table 7.1. There was also a main effect for age group, $F(4, 988) = 5.67$, $p < 0.001$, $\eta^2 = .02$. Post-hoc analysis using a Tukey HSD test revealed that participants rated that their own gender should perform masculine prosocial behaviours to a lesser extent

at 15-16 years compared to all four younger age groups. The means and standard deviations for adolescents' belief ratings (for both masculine and feminine behaviours) at each age for boys and girls are shown in Table 7.2.

Feminine Prosocial Behaviour Beliefs

For feminine prosocial behaviour beliefs there was also a main effect of participant gender, $F(1, 988) = 43.59, p < 0.001, \eta^2 = .04$, indicating that girls rated that girls should perform feminine prosocial behaviours ($M = 3.79, SD = .60$) more than boys rated that boys should perform feminine prosocial behaviours ($M = 3.47, SD = 0.75$). There was also a main effect for age group, $F(4, 988) = 14.48, p < 0.001, \eta^2 = .06$. Post-hoc analysis using Tukey HSD test revealed that participants rated that their own gender should perform feminine prosocial behaviours to a lesser extent at 15-16 years compared to all four younger age groups.

Additionally, two paired-samples t-tests were computed to assess the differences in gender typicality beliefs towards masculine and feminine prosocial behaviours for boys and girls. Results showed that both boys, $t(514) = 12.87, p < 0.001$, and girls, $t(482) = 12.68, p < 0.001$, believed that their own sex should perform more masculine prosocial behaviours than feminine behaviours.

7.3.2 Prosocial Behaviour - Self Reports

A two (participant gender) x five (age group) between-subjects ANOVA was computed for both masculine and feminine behaviours to assess differences in participants self-reports of prosocial behaviour.

Masculine Prosocial Behaviour Reports

For masculine prosocial behaviour reports there was a main effect of gender, $F(1, 988) = 47.26, p < 0.001, \eta^2 = .05$, indicating that girls reported performing more masculine prosocial behaviours ($M = 3.61, SD = 0.64$) than boys ($M = 3.29, SD = 0.69$). This is again surprising, as girls are reporting performing

Table 7.1 The Means (Standard Deviations) for Boys' and Girls' Belief Rating and Reports for Masculine and Feminine Behaviours, as well as the Different Types of Felt Pressure

Masculine Behaviours			
	Boys (N = 515)	Girls (N = 483)	Total (N = 998)
Beliefs	3.87 (0.63)	4.15 (0.61)	4.01 (1.35)
Reports	3.29 (0.69)	3.61 (0.64)	3.45 (0.69)
Feminine Behaviours			
Beliefs	3.47 (0.75)	3.79 (0.59)	3.62 (0.70)
Reports	3.05 (0.67)	3.33 (0.66)	3.19 (0.68)
Felt Pressure			
Peers felt pressure	3.04 (0.98)	2.02 (0.67)	2.54 (0.98)
Parents felt pressure	2.84 (1.08)	1.74 (0.75)	2.31 (1.08)
Self felt pressure	3.62 (0.82)	2.56 (0.72)	3.11 (0.94)

Note. Belief scale – 1 = Disagree, 5 = Agree. Report Scale – 1 = Never/Almost Never, 5 = Always/Almost Always. Felt Pressure Scale – 1 = Not At All, 5 = A lot

more gender atypical prosocial behaviour than boys are reporting gender typical behaviour. The means and standard deviations for boys' and girls' prosocial behaviour reports (for both masculine and feminine behaviours) are shown in Table 7.1. There was also a main effect for age group, $F(4, 988) = 5.46$, $p < 0.001$, $\eta^2 = .02$. Post-hoc analysis using a Tukey HSD test indicated that participants reported performing less masculine prosocial behaviours at age 15-16 years compared to 11-12 and 12-13 years. Participants reported performing less masculine prosocial behaviours across age. The means and standard deviations for adolescents' prosocial behaviour reports (for both masculine and feminine behaviours) at each age group for boys and girls are shown in Table 7.2.

Table 7.2 The Means (Standard Deviations) for Participants' Gender Typicality of Masculine and Feminine Prosocial Behaviour Belief Ratings and Reports at Each Age

		Age					
		11-12 years	12-13 years	13-14 years	14-15 years	15-16 years	Total
Masculine prosocial behaviour belief ratings	Boys	4.01 (0.55)	3.91 (0.71)	3.92 (0.56)	3.96 (0.63)	3.64 (0.62)	3.87 (0.63)
	Girls	4.14 (0.64)	4.13 (0.56)	4.23 (0.52)	4.18 (0.61)	4.05 (0.71)	4.15 (0.61)
	Total	4.08 (0.59)	4.03 (0.64)	4.06 (0.57)	4.06 (0.63)	3.83 (0.69)	4.01 (0.63)
Masculine prosocial behaviour reports	Boys	3.55 (0.64)	3.41 (0.70)	3.26 (0.72)	3.26 (0.68)	3.14 (0.67)	3.29 (0.69)
	Girls	3.68 (0.66)	3.69 (0.63)	3.62 (0.66)	3.63 (0.59)	3.48 (0.67)	3.61 (0.64)
	Total	3.62 (0.65)	3.55 (0.67)	3.43 (0.71)	3.43 (0.66)	3.29 (0.69)	3.45 (0.69)
Feminine prosocial behaviour belief ratings	Boys	3.92 (0.67)	3.59 (0.80)	3.50 (0.67)	3.46 (0.65)	3.09 (0.78)	3.47 (0.75)
	Girls	3.94 (0.56)	3.74 (0.59)	3.84 (0.53)	3.80 (0.61)	3.67 (0.67)	3.79 (0.59)
	Total	3.93 (0.62)	3.67 (0.69)	3.66 (0.63)	3.63 (0.65)	3.37 (0.78)	3.62 (0.70)
Feminine prosocial behaviour reports	Boys	3.41 (0.64)	3.12 (0.68)	3.00 (0.64)	3.03 (0.62)	2.89 (0.69)	3.05 (0.67)
	Girls	3.54 (0.60)	3.41 (0.68)	3.30 (0.63)	3.27 (0.65)	3.21 (0.69)	3.33 (0.66)
	Total	3.48 (0.62)	3.27 (0.69)	3.14 (0.66)	3.15 (0.64)	3.04 (0.70)	3.19 (0.68)

Note. Belief scale – 1 = Disagree, 5 = Agree. Report Scale – 1 = Never/Almost Never, 5 = Always/Almost Always

Feminine Prosocial Behaviour Reports

For feminine prosocial behaviour reports there was also a main effect of participant gender, $F(1, 988) = 35.36, p < 0.001, \eta^2 = .04$, indicating that girls reported performing more feminine prosocial behaviours ($M = 3.33, SD = 0.66$) than boys ($M = 3.05, SD = 0.67$). There was also a main effect for age group, $F(4, 988) = 9.36, p < 0.001, \eta^2 = .04$. Post-hoc analysis using a Tukey HSD test indicated that participants reported performing less feminine prosocial behaviours at age 13-14, 14-15 and 15-16 years compared to age 11-12 years. Participants reported performing less feminine prosocial behaviours across age. Additionally, two paired-samples t-tests were computed to assess the differences in prosocial behaviour reports of masculine and feminine prosocial behaviours for boys and girls. Results showed that both boys, $t(514) = 7.22, p < 0.001$, and girls, $t(482) = 8.54, p < 0.001$, reported performing more masculine prosocial behaviours than feminine behaviours.

7.3.3 Predicting Reports from Felt Pressure and Beliefs

Masculine Prosocial Behaviours

A hierarchical multiple regression analysis was computed to predict participants' masculine prosocial behaviour reports from: gender, participants' gender typicality of masculine prosocial behaviour beliefs, participants' reports of peer felt pressure, participants' reports of parent felt pressure and participants' reports of self felt pressure. The method of entry was the enter method, as all predictor variables in each block were computed simultaneously. Participants' gender typicality of masculine prosocial behaviour belief scores were calculated using the mean of participants' scores for the masculine items in the GTGPB scale. Participants' peer, parent, and self felt pressure scores were calculated using the mean of participants' scores for the respective items in the felt pressure scale. Gender was included as a control variable. The predictor variables were ordered. This was to assess how much unique variance was explained by the variables at

each stage of analysis. The first block consisted of gender, to control for variance in participants reports of behaviour explained by this variable. The second block consisted of predictor variables: gender typicality of masculine prosocial behaviour beliefs, peer felt pressure, parent felt pressure and self felt pressure. The third block included four additional interaction variables, calculated by multiplying gender by gender typicality of masculine prosocial behaviour beliefs (interaction 1) and by peer (interaction 2), parent (interaction 3), and self felt pressure (interaction 4) to assess the influence of gender on these variables within the analysis.

The results of this analysis indicated that gender accounted for a significant amount of masculine prosocial behaviour report variability, $R^2 = .05$, $F(1, 996) = 58.00$, $p < 0.001$. This justifies the inclusion of gender as a control variable, as it accounts for a unique amount of variance in reports. Results also indicated that gender typicality of masculine prosocial behaviour beliefs, peer felt pressure, parent felt pressure, and self felt pressure accounted for a significant amount of masculine prosocial behaviour report variability, $R^2 = .23$, $F(4, 992) = 58.09$, $p < 0.001$, in addition to the variability accounted for by gender. Furthermore, the addition of the interaction variables into the model did not result in a significant level of R square change (0.005), and did not contribute to explaining an additional amount of the variance in the model overall. Therefore, the variables included in this third block were not considered in further analysis.

Zero-order correlations are shown in Table 7.3, and unstandardised beta values, standard error values, and standardised beta values are presented in Table 7.4. In the first block the standardised beta values for gender were significant. As this beta value is positive this would suggest that higher reports of masculine prosocial behaviour are likely to come from girls. In the second block, the standardised beta value for gender remains significant, and the beta value for gender typicality of masculine prosocial behaviour beliefs was significant.

Table 7.3 Zero-Order Correlations between Predictor Variables for Masculine Prosocial Behaviour

	Masculine prosocial behaviour reports	Gender	Gender typicality of masculine prosocial behaviour beliefs	Peer felt pressure	Parent felt pressure	Self felt pressure	Integer 1	Integer 2	Integer 3
Masculine prosocial behaviour reports									
Gender	.24***								
Gender typicality of masculine prosocial behaviour beliefs	.46***	.22***							
Peer felt pressure	-.86**	-.52***	-.11***						
Parent felt pressure	-.13***	-.51***	-.14***	.73***					
Self felt pressure	-.12***	-.57***	-.08**	.65***	.68***				
Integer 1	.28***	.16***	.69***	-.09***	-.09***	-.08**			
Integer 2	-.13***	-.49***	-.12***	.67***	.51***	.49***	-.09***		
Integer 3	-.15***	-.48***	-.12***	.51***	.66***	.52***	-.09***	.70***	
Integer 4	-.13***	-.48***	-.09***	.45***	.56***	.74***	-.06**	.60***	.63***

Note. ** = $p < 0.01$, *** = $p < 0.001$

Table 7.4 The Unstandardised Beta Values, the Standard Error, and the Standardised Beta Values for the Predictor Variables for Masculine Prosocial Behaviour Reports

	<i>B</i>	<i>SE</i> <i>B</i>	β	R ² Change
Step 1				.055***
Constant	-0.16	0.03		
Gender	0.32	0.04	.24***	
Step 2				.179***
Gender	0.21	0.05	.15***	
Gender typicality of masculine prosocial behaviour beliefs	0.47	0.03	.43***	
Peer felt pressure	0.06	0.03	.08	
Parents felt pressure	-0.03	0.03	-.04	
Self felt pressure	-0.16	0.03	-.02	
Step 3				.005 ^{n.s.}
Gender	0.19	0.05	.14***	
Gender typicality of masculine prosocial behaviour beliefs	0.53	0.04	.49***	
Peer felt pressure	0.06	0.04	.09	
Parents felt pressure	-0.01	0.04	-.15	
Self felt pressure	-0.02	0.04	-.02	
Integer 1	-0.13	0.06	-.08*	
Integer 2	-0.03	0.07	-.46	
Integer 3	-0.05	0.06	-.04	
Integer 4	0.00	0.06	0.00	

Note. * = $p < 0.05$ ** = $p < 0.01$ *** = $p < 0.001$

Again, as this beta value is positive, this would suggest that higher gender typicality of masculine prosocial behaviour belief scores predict higher reports of masculine prosocial behaviour. See Figure 7.1 for a diagram of this model.

Feminine Prosocial Behaviours

A hierarchical multiple regression analysis was computed to predict participants' feminine prosocial behaviour reports from: gender, participants' gender typicality of feminine prosocial behaviour beliefs, participants' reports of peer felt pressure, participants' reports of parent felt pressure and participants' reports of self felt pressure. The predictor variables were ordered. The first block consisted of gender, to control for variance in participants reports of behaviour explained by gender. The second block consisted of predictor variables: gender typicality of feminine prosocial behaviour beliefs, peer felt pressure, parent felt pressure and self felt pressure. The third block included four additional interaction variables, calculated by multiplying gender by gender typicality of feminine prosocial behaviour beliefs (interaction 1) and by peer (interaction 2), parent (interaction 3), and self felt pressure (interaction 4) to assess the influence of gender on these variables within the analysis. The method of entry was the enter method, as all predictor variables in each block were computed simultaneously. The results of this analysis indicated that gender accounted for a significant amount of feminine prosocial behaviour report variability, $R^2 = .04$, $F(1, 996) = 42.28$, $p < 0.001$. This justifies its inclusion as a control variable. Results also indicated that gender typicality of feminine prosocial behaviour beliefs, peer felt pressure, parent felt pressure, and self felt pressure accounted for a significant amount of feminine prosocial behaviour report variability, $R^2 = .29$, $F(4, 992) = 88.08$, $p < 0.001$, in addition to the variability accounted for by gender.

Table 7.5 Zero-Order Correlations between Predictor Variables for Feminine Prosocial Behaviour

	Feminine prosocial behaviour reports	Gender	Gender typicality of feminine prosocial behaviour beliefs	Peer felt pressure	Parent felt pressure	Self felt pressure	Integer 1	Integer 2	Integer 3
Feminine prosocial behaviour reports									
Gender	.20***								
Gender typicality of feminine prosocial behaviour beliefs	.52***	.23***							
Peer felt pressure	-.02	-.52***	-.10***						
Parent felt pressure	-.09**	-.51***	-.13***	.73***					
Self felt pressure	-.06*	-.57***	-.06*	.65***	.68***				
Integer 1	.34***	.19***	.63***	-.12***	-.11***	-.07*			
Integer 2	-.04	-.49***	-.13***	.67***	.51***	.49***	-.13***		
Integer 3	-.11***	-.48***	-.12***	.51***	.66***	.52***	-.11***	.71***	
Integer 4	-.03	-.48***	-.07*	.45***	.56***	.74***	-.02	.60***	.63***

Note. * = $p < 0.05$, ** = $p < 0.01$, *** = $p < 0.001$

Table 7.6 The Unstandardised Beta Values, the Standard Error, and the Standardised Beta Values for the Predictor Variables for Feminine Prosocial Behaviour Reports

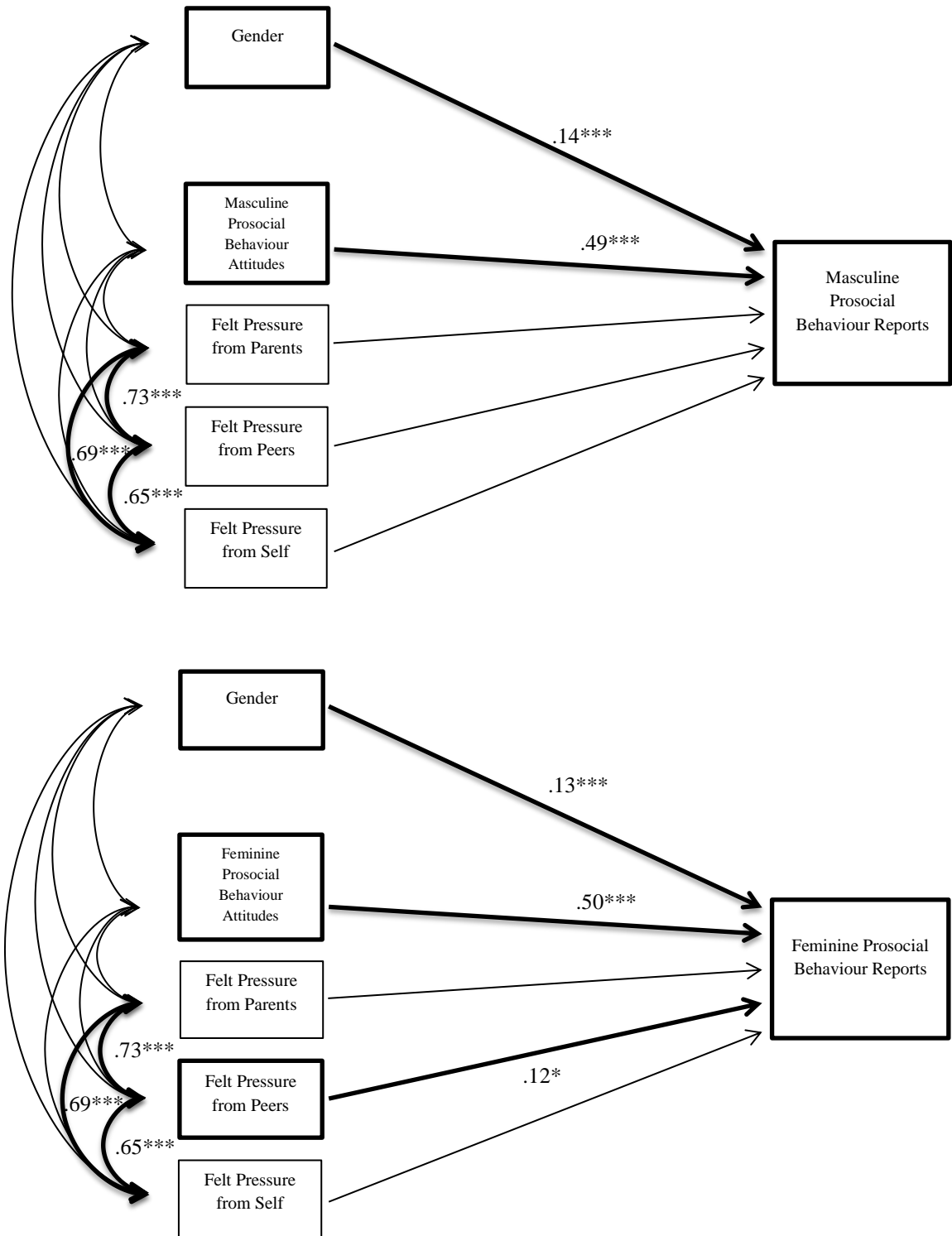
	<i>B</i>	<i>SE</i> <i>B</i>	β	R ² Change
Step 1				.041***
Constant	-0.13	0.03		
Gender	0.27	0.04	.20***	
Step 2				.251***
Gender	0.17	0.05	.13***	
Gender typicality of feminine prosocial behaviour beliefs	0.49	0.03	.50***	
Peer felt pressure	0.11	0.03	.16***	
Parents felt pressure	-0.04	0.03	-.06	
Self felt pressure	-0.16	0.03	-.02	
Step 3				.007 ^{n.s.}
Gender	0.17	0.05	.13***	
Gender typicality of feminine prosocial behaviour beliefs	0.49	0.03	.50***	
Peer felt pressure	0.08	0.04	.11	
Parents felt pressure	0.02	0.03	.03	
Self felt pressure	-0.07	0.04	-.10	
Integer 1	0.01	0.06	.00	
Integer 2	0.09	0.06	.07	
Integer 3	-0.05	0.06	-.13	
Integer 4	0.13	0.06	0.11	

Note. * = $p < 0.05$ ** = $p < 0.01$ *** = $p < 0.001$

Results also indicated that the addition of the interaction variables into the model did not result in a significant level of R square change (0.007), and did not contribute to explaining an additional amount of the variance in the model overall. Therefore, variables included in this third block were not considered in further analysis.

Zero-order correlations are shown in Table 7.5, and unstandardised beta values, standard error values, and standardised beta values are presented in Table 7.6. In the first block the standardised beta values for gender were significant. As this beta value is positive this would suggest that higher reports of feminine prosocial behaviour are likely to come from girls. In the second block, the standardised beta value for gender remains significant, and the beta value for gender typicality of feminine prosocial behaviour beliefs was significant. Again, as this beta value is positive, this would suggest that higher gender typicality of feminine prosocial behaviour belief scores predict higher reports of feminine prosocial behaviour. The standardised beta value for peer felt pressure was also significant in this block, suggesting that for feminine behaviours, this significantly predicted reports of feminine prosocial behaviour. This beta value was also positive, suggesting that greater felt pressure to not be like the other gender resulted in increased reports of feminine prosocial behaviour. See Figure 7.1 for a diagram of this model.

Figure 7.1 Masculine and Feminine Prosocial Beliefs and Behaviours Models



Note. * = $p < 0.05$, ** = $p < 0.01$, *** = $p < 0.001$. Partial correlations $> .6$ and significant predictive pathways (significant beta values) have been highlighted in bold

7.4 Discussion

This study investigated whether adolescents' beliefs about which prosocial behaviours their gender group should perform predicted their own reports of those same prosocial behaviours. Adolescents have been shown to hold complicated beliefs about gender and prosocial actions, as well as identifying specific prosocial behaviours as appropriate for one gender over the other (see previous chapter). It is important to determine how strongly adolescents' beliefs about prosocial behaviour and gender predict their behavioural choices, as interventions to change behaviour may need to also target these beliefs. This study not only provides important insight into adolescents' gender beliefs and actions independently, but also the relationship between the two. Furthermore, the role of felt pressure from peers, parents, and the self in predicting adolescents' reports of prosocial behaviour was investigated.

The first four hypotheses concerned differences in beliefs. Hypothesis 1 predicted that boys would think that their own gender group should perform masculine prosocial behaviour more than girls think that girls should. Conversely, hypothesis 2 predicted that girls would think that their own gender group should perform feminine prosocial behaviour more than boys think boys should. Support was found for hypothesis 2, but not 1. Girls think that girls should perform masculine prosocial behaviour more than boys think boys should. This is surprising, as it was expected that boys would have stronger beliefs about masculine behaviours – as these behaviours 'belong' to them as a gender group. Hypotheses 3 and 4 predicted that boys would think that boys should perform more masculine prosocial behaviour than girls, and that girls would think that girls should perform more feminine prosocial behaviour than boys. Support was found for hypothesis 3, but not 4. Put simply, whilst boys did believe that they should perform more masculine behaviours than feminine ones, girls also believed this. This is again surprising. It was expected that girls would believe that girls should perform more feminine prosocial behaviours, as these behaviours 'belong'

to them as a gender group. Similar patterns were observed for adolescents' reports of masculine and feminine prosocial behaviours. Hypotheses 5 and 6 predicted that boys would report more masculine behaviour than girls and that girls would report more feminine behaviour than boys respectively. Hypothesis 6 was supported but hypothesis 5 was not; girls reported more masculine prosocial behaviour than boys. Furthermore, hypotheses 7 and 8 predicted that boys would report more masculine prosocial behaviour than feminine prosocial behaviour, and that girls would report more feminine prosocial behaviour than masculine behaviour. Again, support was found for hypothesis 7 but not 8. Girls reported more masculine prosocial behaviour than feminine prosocial behaviour. It is clear here that whilst the beliefs and behaviours of boys conform to expected patterns, based on the gender-typing of prosocial behaviours seen in Chapter 6, the beliefs and actions of girls do not.

As shown in the previous chapter, girls and boys both identify prosocial behaviours that are 'theirs' and that belong to their gender group. These results show that boys' beliefs about their own gender group and their own reports of behaviour are in line with this gender-typing. However, the beliefs and reports of girls are not. It is odd that girls believe that girls should perform more masculine prosocial behaviours than feminine ones, and that they believe girls should perform masculine prosocial behaviours more than boys believe boys should. One possible explanation for this result is the phrasing of the questions and the use of 'I think that girls should...' at the start of the items. This question structure, in combination with the type of methods used (i.e., questionnaire), may have allowed girls to answer in a way that is more desirable, or in a way that they feel they should. In support of this, girls have a greater desire than boys to conform to the expectations of adults and authority figures (Blakemore et al., 2009), and have a greater interest in prosocial goal pursuit than boys (Beutel & Johnson, 2004). Therefore, girls could be responding to these questions in a purely moral sense. It has already been discussed, particularly in Chapter 5, that prosocial behaviour

may be evaluated using both the moral and social domain. In focus group discussions, the social domain may have been cued for use by adolescents as they knew focus groups were about gender. In contrast, the items used in this scale were not cued in this way, and the moral domain may have been employed exclusively (particularly since girls may identify with these actions as being behaviour they 'should do' according to authority figures). Prosocial behaviours that are masculine may just be more valued in a moral sense. Alternatively, girls may have been answering these questions in terms of gender and the social domain, and feel that masculine prosocial behaviours are ones that they ought to perform because of this label. They may feel more able to express these beliefs in a questionnaire compared to focus groups where they may acknowledge the social pressures that push them towards gender typical prosocial behaviours.

This begs the question of why girls feel that they should perform masculine prosocial behaviours over feminine ones; or why they might value these behaviours more. One explanation is children and adolescents' awareness of power and status imbalance between the sexes in society (Levy, Sadovsky, & Troseth, 2000). In most societies, men have higher status and more power than women, mainly due to unequal distribution of the sexes across professions (Liben, Bigler, & Krogh, 2001). This recognition of power inequality is reflected in child peer groups. Boys are more likely to act punitively towards boys who initiate contact with girls (lower status), who act in feminine ways, and who engage in cross-gender activities (Leaper, 1994, 2000). Conversely, girls are more likely to cross gender barriers, and to adopt masculine roles and behaviours. It could be that, upon the establishment of a set of prosocial behaviours that are distinctly masculine, girls gravitate towards these behaviours as they are of higher status and power. It is easy to see how physical and direct behaviours such as those identified as masculine in this study (such as providing physical assistance, and confronting others when wrong) could have stronger connotations with status and power compared to the feminine behaviours used. An alternative explanation is

that girls may have such strong beliefs about performing masculine prosocial behaviour as they feel it is ambivalently sexist that these behaviours ‘belong’ to boys. They may feel that the allocation of these behaviours as masculine due to their nature (involving strength and physicality) is unjust, as typified by this quote from focus group discussions in the previous chapter:

“...teachers usually pick boys to go and get heavy things from like a cupboard or something, and then when girls sort of hear that, it’s sort of their confidence goes down as well because they think that they, they’re not good enough to do that”

Although further research is required, the idea that girls believe that they should perform more masculine prosocial behaviours because they are gender-typed in that way is a convincing one. Specifically, the idea that masculine prosocial behaviours are more valued seems very possible, as they often involve more direct involvement, exertion, and risk, and often provide direct and observable results. Girls may therefore rate that they should perform more of these behaviours due to this social and moral value.

It was also hypothesised that adolescents’ gender typicality beliefs would predict adolescents’ reports of gendered prosocial behaviours. This hypothesis was supported. Gender typicality beliefs accounted for a significant amount of the variance in explaining participants’ reports of prosocial behaviour independent of the variance explained by participant gender. Regardless of whether you are a boy or a girl, if you believe that your gender group should perform more masculine or feminine prosocial behaviours, then you yourself will report performing more of those behaviours. This is an important finding, as it highlights the possible importance of beliefs about prosocial behaviour and gender in influencing boys’ and girls’ behaviours. It also highlights the pressure that adolescents feel to conform to their own gender-typing of prosocial behaviour.

The final hypothesis predicted that felt pressure from peers would predict participants' reports of both masculine and feminine behaviour. However, this was only the case for feminine behaviours. Specifically, when participants felt greater pressure from peers not to act like the opposite gender, they reported performing more feminine prosocial behaviours. This represents a psychologically beneficial pathway for girls. Specifically, they may therefore perform more gender typical behaviour in order to counter the pressure they feel to promote a better sense of self-worth and well-being and protect against negative psychosocial adjustment (Egan & Perry, 2001). The pathway for boys is not so clear. One would question why increased pressure not to be 'like a girl' would result in increased reports of feminine prosocial behaviour. If boys are feeling more felt pressure then they may experience negative psychosocial adjustment, similar to girls. However, they appear to fail to redress this balance, as they report performing more gender atypical behaviours, also related to negative psychosocial adjustment (Egan & Perry, 2001). It could be that boys are responding to increased felt pressure from peers by 'acting out' against this pressure, and performing behaviours contrary to this pressure, as a form of retaliation to peers. This is unlikely. A more convincing explanation is that the relationship between the variables is reversed. Put simply, rather than increased felt pressure resulting in more feminine behaviours, it could be that boys who perform more feminine behaviours feel increased pressure from peers to not act like the other gender. This is in line with literature suggesting that boys are chastised by peers for performing feminine behaviours (Carter & McCloskey, 1984; Fagot, 1985). However, studies also show that in response to judgement by peers gender atypical behaviours decrease (Lamb, Easterbrooks, & Holden, 1980; Lamb & Roopnarine, 1979) which would suggest that boys' reports of feminine prosocial behaviour should be lower in response to felt pressure. A longitudinal study may help delineate this relationship fully.

7.4.1 Implications

These results carry a number of important implications. Firstly, this study shows that the beliefs adolescents hold about which behaviours their gender group *should* perform, strongly and consistently predict reports of those same behaviours by adolescents (for both masculine and feminine prosocial behaviours). The ideas discussed and observed in the previous chapter suggest that the gender-typing of prosocial behaviour, and the gender labels allocated to different behaviours, is limiting for adolescents. Put simply, adolescents themselves expressed that when a prosocial behaviour is gender-typed for the other gender they are much less likely to perform this behaviour, especially in front of peers. This study highlights that beliefs about gender labels and prosocial behaviour do indeed predict reports of behaviour. Notably that the more (or less) you believe your gender group should perform a behaviour the more (or less) you perform it yourself. Therefore, interventions or educational programs designed to change the prosocial behaviours of adolescents, or rather to ‘open up’ other-gendered prosocial behaviours, must also focus on changing gender beliefs.

A further implication of these results is the importance of peers with regards to feminine prosocial behaviours. Increased felt pressure from peers (to not be like the other gender) predicts higher reports of feminine prosocial behaviours in both boys and girls. Despite this representing complicated and contrasting processes for boys and girls, the peer group is clearly important. In the same vein as the previous paragraph, interventions aiming to change these behaviours must incorporate elements targeting the gender beliefs and thoughts of the ‘group’ and even beyond. Challenging adolescents’ gender-typing of prosocial behaviours must occur at a broad or whole-school level in order to achieve effective results. At the very least encouraging an environment where peers are discouraged from chastising others for performing cross-gender behaviour may be vital for helping such interventions succeed.

7.4.2 Limitations

There are two main methodological limitations to this study. Firstly, this was a single time point study. As such, this study was not able to assess the relationship between the variables over time. This would have been useful when assessing the relationship between felt pressure and behavioural reports, as currently it is not clear whether higher feminine behaviour reports from boys is the result of increased felt pressure or the other way round. A cross-lagged design would have provided the basis for more sophisticated analysis and allowed this relationship to be more extensively investigated. The second limitation concerns the felt pressure measure itself. The scale used in this study measures the pressure to not conform to other-gender stereotypes. This is the adapted scale from Egan and Perry (2001) that measures pressure to conform to same-gender stereotypes. It may have been more informative to have used the original scale, as this would have been simpler to interpret in terms of the analytical models chosen. However, focus group discussions in the previous chapter highlighted more the importance of *not* acting like the other gender than the importance of acting like your own gender. Therefore, the other-gender scale was used as it was considered more appropriate. A further limitation of this scale is that it measures pressure to conform to other/same-gender stereotypes regarding things such as toy choice, activity choice, and how they ‘act’ in general. It may be that these items, more common in stereotype studies, are less relevant to studies like this one that look at the gender-typing of moral behaviours. Instead, maybe a modified version of the scale including specific prosocial items may have strengthened the relationships found in these models. However, if prosocial behaviour is gender-typed, it should be incorporated deeply enough into adolescents’ gender knowledge that the items in the original scale should cross-activate that knowledge and still be applicable.

Two final methodological limitations concern the new scale created for this study, and the order of presentation of scales in the questionnaire. The Cronbach’s alphas for the two subscales of the GTGPB were poor, suggesting that

the scale is not reliable to a satisfactory level. As mentioned, two items were omitted from the GTGPB scale. These two behaviours (peacemaker and confronts others when wrong) loaded strongly onto components one and two respectively from age 12-13 onwards in the previous chapter. The Cronbach's alpha values may have been improved by the inclusion of these items, as they are behaviours that are strongly gender-typed and therefore may be particularly representative of adolescents' beliefs regarding gender and prosocial behaviour. As this error was not picked up prior to testing, little could be done to rectify this problem. Therefore, results should be interpreted with caution. Secondly, the scales were presented in the order shown in Appendix 9, the belief questionnaire first, followed by the self-report measure. This may have cued responses in the report measure, based on the activation of beliefs and gender concepts in the belief questionnaire. It may have been better to present the report questionnaire first, so that reports given were uninfluenced by activated beliefs. Future research should aim to counter-balance questionnaire sections, or randomise them, to minimise this influence (if present).

7.4.3 Conclusion

This study investigated the beliefs that adolescents hold about masculine and feminine prosocial behaviours, in terms of the extent they believe that their own gender group should perform these behaviours. This study also examined the role of these beliefs, as well as felt pressure to not act like the other-gender, in predicting reports of those same behaviours. Results showed that both boys and girls favour masculine prosocial behaviours over feminine ones, both in what they believe their gender group should do, and when reporting on their own actions. Results also showed that there is strong and consistent evidence that adolescents' beliefs about typical masculine and feminine behaviours strongly and consistently predict the behaviours they report performing. These findings are important,

because if we are to try and change adolescents' gender-typed prosocial behaviour, we must also consider their beliefs.

There is also an important role played by felt pressure in the performance of feminine prosocial behaviours. Future research should use more varied measures of peer pressure and conformity to group stereotypes to try and clarify the exact role of peers in reinforcing and shaping adolescents' prosocial behaviour. Furthermore, future studies should collect longitudinal data, in a cross lagged design, to ascertain the directionality of the relationship between variables. This is necessary in order to understand which exact processes to target when designing interventions to modify adolescents' prosocial behaviour. Finally, future research should collect observational data to assess whether adolescents' reported beliefs and behaviour correlates with the behavioural decisions they make in everyday situations with peers and in prosocial scenarios. What is clear from this study is that the beliefs expressed in the previous chapter, both in masculinity-femininity ratings and focus group discussions, represent beliefs about adolescents' own gender groups. It is also clear that these beliefs do play some role in determining adolescents' prosocial behaviour, as does the peer group and the pressures it exerts.

Chapter 8: Discussion and Conclusions

The overall aim of the present research was to explore the gender-typing of prosocial behaviour in children and adolescents aged 6 to 18 years. Researchers have noted the existence of a prosocial gender stereotype – the idea that girls are more prosocial than boys (Eisenberg et al., 2007) – and the studies in this thesis investigated how children and adolescents understand gender to relate to prosocial behaviour across development. Put simply, this research explored how children *judge* prosocial behaviour and how those judgements are influenced by gender. Four key research questions derived from theoretical conjecture as well as gaps in, and limitations of, the current literature were used to frame this research. These questions were listed at the end of Chapter 2. The aim of this chapter is to review the research presented in this thesis in light of these questions to understand how far this research has helped to further current understanding of the relationship between gender and prosocial behaviour. The first section of this chapter is a summary of the main findings from the present research in reference to the four key questions. The second section explores the theoretical implications of this research programme and suggests avenues for future investigation. In the third section, a tabulated summary of results that shows how gender relates to prosocial behaviour across development is presented. Following this, limitations to the present research are discussed and the chapter ends with the overall conclusions of this thesis.

8.1 Summary of Main Research Questions and Findings

- (i) Is there a prosocial gender stereotype?

Study 1 addressed the first question of whether children and adolescents female-type prosocial behaviour. This study looked to provide support for the existence of the prosocial gender stereotype by asking children aged 6 to 18 years

who they thought was more likely to perform prosocial behaviour, boys or girls. This study measured the expectations that children and adolescents have about prosocial behaviour from boys and girls as a gender group, and who they *believe* is more likely to perform prosocial behaviour. This study used gender likelihood questions about four prosocial behaviours – sharing, helping, giving, and comforting – and asked participants to choose from boys, girls or either. Results revealed that participants at all ages believed that girls were more likely than boys to perform all four types of prosocial behaviour. This provides support for the prosocial gender stereotype (Eisenberg et al., 2007), as participants rated that they *expected* more prosocial behaviour from girls. In this sense, prosocial behaviour (or at least these four specific behaviours) can be viewed as female-typed.

In addition to these findings, participants rated that prosocial behaviour was more likely of girls to a greater extent in adolescence than in childhood. Specifically, ratings that girls are more prosocial than boys increase in early adolescence, compared to middle and late childhood, and remain high in late adolescence. One explanation for this is that, with the intensification of gender stereotypes in early adolescence (Galambos et al., 1990; Hill & Lynch, 1983), the knowledge that prosocial behaviour is female-typed also intensifies. Higher gender likelihood ratings for girls in early adolescence may therefore be a reflection of this intensification and an acknowledgement from adolescents of this consolidated stereotype knowledge. Additionally, as interest in dating heightens, boys and girls may increasingly act in line with traditional gender stereotypes (Fabes et al., 1999). As such, the higher ratings in early adolescence may be a reflection of changes in the *behaviour* of boys and girls in line with the prosocial gender stereotype – less prosocial behaviour from boys, more from girls. It may be a combination of both changes in behaviour and in the salience of stereotypes that results in the increased female-typing of prosocial behaviour at this age. In addition, girls female-typed prosocial behaviour to a greater extent than boys at all ages. This was not surprising, as girls have a greater knowledge of gender

stereotypes than boys (Serbin et al., 1993) and have a greater interest in prosocial values and goal pursuit (Beutel & Johnson, 2004). This stereotype may also be particularly salient to girls, as it forms part of their own-gender schema, which is more comprehensive and accessible (Martin & Halverson, 1981).

Overall the findings from Study 1 support the current assertion of the existence of a prosocial gender stereotype and, to the author's knowledge, this is the first study to test this idea directly (Eisenberg et al., 2007). Put simply, Study 1 shows that children and adolescents consistently and strongly associate prosocial behaviour with girls as a gender group.

- (ii) Does gender affect how children and adolescents morally judge prosocial action by boys and girls?

Study 2 addressed the question of whether the social knowledge that children and adolescents hold about prosocial behaviour affects their moral judgements of these actions. This study used multifaceted prosocial scenarios – those that had moral information (the action itself) and social information (the gender of the protagonist) available for utilisation by participants. Children and adolescents were shown vignettes of either boys or girls performing, or failing to perform the prosocial behaviours of helping and sharing, and were asked to judge how good or bad these actions were. Results indicated that participants at all ages judged prosocial behaviour as good, and failing to perform prosocial behaviour as bad, regardless of the gender of the protagonist. As prosocial behaviour is a morally right action (Eisenberg et al., 2007), it is unsurprising that children judge these actions as positive (and failing to do so as negative). The judgements made by participants in Study 2 were guided by, and in line with, moral rules about right and wrong (Turiel, 1998) that they will have learned from a young age (Vaish et al., 2011).

However, at 12-13 years, variations in the moral judgements made by participants were found. Children at this age judged boys performing prosocial behaviour less positively than at other ages; and boys failing to perform prosocial

behaviour less negatively than at other ages. Although not measured in this study, it could be that the social knowledge that adolescents have about gender and prosocial behaviour affects moral judgements at this age. For example, increased salience and intensity of the female-typing of prosocial behaviour in adolescence, as indicated in Study 1, could be responsible for the changes found. Results from this study are similar to results found on judgements made about exclusion of other-sex peers from social groups (Killen & Stangor, 2001). Namely, that at age 12-13 years, exclusion based on gender and experience with the activity being performed by the group (social information) is judged as 'less bad' compared to other ages. The findings from Study 2 are extremely important, as they highlight that prosocial behaviour – that should be judged positively in line with moral rules – may be subject to judgement based on information about gender in early adolescence.

These results pose an interesting question about how boys manage the judgements that they receive from peers at this age when performing prosocial behaviour. The results from this study suggest that peers may give less positive reactions to boys upon performance of prosocial behaviour in real-life scenarios. In this sense boys may have to manage competing pressures with regards to prosociality – the moral pressure to be good, and the social pressure to 'not be like a girl'. This is extremely important considering the role that peers have in reinforcing other gender-typed behaviours and activities, such as toy choice (Carter & McCloskey, 1984; Fagot, 1977, 1984, 1985).

Focus group discussions from Study 4 also revealed that the gender-typing of prosocial behaviour does indeed affect moral judgements of these actions. Themes from these discussions included the importance of context, as well as peer judgement on the performance of gendered prosocial behaviour. Specifically, participants discussed at length how they would avoid performing gender atypical prosocial behaviours in public, as this was not acceptable to peers. They could however perform gender-typical behaviours at any time, as these carried no social

cost. With regards to peer judgements, participants outlined many different scenarios and examples of behaviours that would invite negative social evaluation, such as a boy performing the feminine behaviour of 'providing community service'. This highlights that peers are important socialisers of gendered prosocial behaviour, and play a similar role in maintaining and reinforcing gender norms for prosocial action as they do for other behaviours and choices. In summary, information and knowledge about gender does appear to influence the moral evaluation of prosocial behaviour, but only in adolescence.

- (iii) Does the gender-typing of prosocial behaviour change across development?

Study 1 partly answers this third research question, and has already been discussed in detail above. With regards to age related changes, in Study 1 participants in early and late adolescence gender-typed prosocial behaviours as feminine to a greater extent than in childhood. In this sense, when using these four specific behaviours, gender-typing strengthens across development. Studies 3 and 4 however investigated this developmental pattern in greater depth, using a wider variety of prosocial behaviours with a more select age range (11-16 years). Study 3 used principle components analysis and Study 4 used focus groups to investigate how adolescents understand gender to relate to prosocial behaviour, utilising both quantitative and qualitative approaches. In these studies, 24 prosocial behaviours were used (from Bergin, Talley & Hamer, 2003) providing a much broader range than the four behaviours used in Studies 1 and 2. In Study 3, results showed that at 11-12 years, the correlation between behaviours was explained by only one component, suggesting that all the behaviours were rated similarly in terms of masculinity or femininity. However, from 12-13 years onwards, the correlation between many of the behaviours was explained by a feminine/neutral component, but some were explained by a masculine component. These results did indicate that there are likely other factors that influence how these behaviours are rated in addition to gender, as indicated by the lower values for cumulative variance

explained by the two components. However, these results suggest that, from this age, participants were rating prosocial behaviours differently – with some as masculine. By age 15-16 years, the correlation between six prosocial behaviours was strongly explained by the second component, suggesting that participants rated these as masculine. These results suggest that, when presented with a wide variety of prosocial behaviours, adolescents both male- and female-type prosocial behaviours.

Thematic analysis of focus group discussions in Study 4 further confirmed the differential gender-typing found in Study 3, as well as illuminating why this may occur in adolescence. Whilst participants acknowledged that all children were capable of being prosocial, they specifically identified and discussed five feminine and five masculine prosocial behaviours (see Table 6.2). Furthermore, it was found that participants had identified these behaviours as gendered based on how the qualities of these actions matched the broader characteristics of the male and female gender role. For example, masculine behaviours were rated as such based on their association with agency – specifically involving direct/physical action, possible confrontation, and being more performance based/public. Conversely, feminine behaviours were grouped by their focus on communality – specifically being more emotional, focused on relationships, avoidant of confrontation, and more private/one-to-one. This is in line with gender role characteristics proposed by Bakan (1966), and outlined in social role theory (Eagly, 1987; Eagly et al., 2000). As such, the distinction between masculine and feminine prosociality seen in this study may be the developmental precursor to prosocial behavioural differences between men and women in adulthood (Eagly, 2009; Eagly & Koenig, 2006).

Studies 1, 3 and 4 have shown how the relationship between gender and prosocial behaviour develops across childhood and adolescence. Namely, that prosocial behaviour changes from something that is exclusively female-typed, to a set of behaviours that are differentially gender-typed based on their

characteristics. A key factor that may initiate or mediate this change is the ambiguity that boys experience at age 12-13 years when performing prosocial behaviour. Boys may have to 'seek out' masculine prosocial behaviours to claim as their own, to help satisfy the moral and social pressures that they experience. By performing behaviours like 'providing physical assistance' and 'confronting others when wrong', they can act both prosocially and appear masculine to peers. The increased salience and intensity of gender stereotypes in early adolescence may provide the catalyst for the start of this process. In other words, although children may be aware of the prosocial gender stereotype from a young age, it may not be salient enough to influence their performance of prosocial behaviour or indeed their moral judgements of these actions. However, in early adolescence, as stereotypes consolidate and intensify the association of prosocial behaviour with girls may become unavoidable for boys. This may force them to address their competing moral and social pressures.

- (iv) Do beliefs about gender and prosocial behaviour relate to reports of prosocial actions?

Study 5 investigated how influential beliefs about gender and prosocial behaviour are on the performance of these behaviours by adolescents. This study asked participants questions about how much they believe that their own gender group should perform four masculine and four feminine prosocial behaviours; as well as asking participants to report on their own levels of those actions. Additionally, measures of felt pressure from peers, parents, and the self, to not be like the other gender group were used to predict reports of behaviour. Results for boys' beliefs and behavioural reports were in line with the gender-typing of these behaviours and the patterns that were expected. The results for girls were more complicated, showing that they believed that girls should perform more masculine behaviours, and providing self-reports to a similar effect. More research is needed in order to discover why this is, however, results did show that adolescents'

gender typicality beliefs about prosocial behaviour strongly predicted self-reports for both masculine and feminine actions. This suggests that the more adolescents believe that their own gender should perform a behaviour the more they themselves report doing so (regardless of whether this is in line with the gender-typing of those behaviours or not). This is an important finding as it shows that the gendered beliefs that adolescents hold about prosocial behaviour do indeed affect how they themselves behave. Additionally, felt pressure was found to have a relationship with reports of feminine prosocial behaviours. Specifically, the higher the felt pressure from peers the higher the reports of feminine prosocial behaviour were by adolescents. This presented a clear relationship for girls, as they may perform more feminine behaviours in response to felt pressure to ‘not be like a boy’. The relationship for boys is more complicated, and it may be that boys who perform more feminine prosocial behaviour experience more felt pressure from peers, rather than the converse relationship.

8.2 Theoretical Implications and New Research Directions

8.2.1 Research on Gender Differences in Prosocial Behaviour

The studies in this thesis have shown that gender is consistently and strongly linked to prosocial behaviour throughout childhood and adolescence. Previous research in the area has concentrated primarily on describing the differences between the prosocial behaviour of boys and girls in terms of frequency of occurrence, rarely taking the influence of gender beliefs into account. This failure has been at all stages of research, both in the design and conduct of studies, and interpretation of results found. An important message from this thesis is that researchers must begin appreciating the relationship between gender and prosocial behaviour when conducting research.

The studies in this thesis make a number of specific contributions to the area of gender and prosocial behaviour research. Firstly, Study 1 provided strong

support for the existence of a prosocial gender stereotype, and the belief that girls are more prosocial than boys (Eisenberg et al., 2007). In studies that use self- and other-report measures this may prove highly influential, as participants may be reporting what they *expect* to see from boys and girls, rather than reporting on actual differences in behaviour. Researchers should therefore seek to be very specific in how they phrase questions in these types of studies to try and minimise this influence. Even with these increased efforts, it must be taken as a consideration that self- and other-report studies are susceptible to the, now supported, prosocial gender stereotype.

Secondly, Studies 3 and 4 provided support for the growing notion that, in gender and prosocial behaviour research, we should pay greater attention to *how*, rather than *how much*, boys and girls are prosocial (Dovidio et al., 2006; Eisenberg et al., 2007). This is particularly the case in adolescence, as prosocial behaviour becomes more diverse and complicated. For example, in Study 1 prosocial behaviour appeared to be increasingly female-typed from 12-18 years. However, Studies 3 and 4 revealed that this age represents a period of diversification of prosocial behaviour, and the emergence of complex patterns of gender-typing. This diversification is an important process, as it allows adolescents to express themselves in a prosocial, as well as gender-congruent manner. Future research should therefore recognise the importance of focussing more on the qualitative aspects of behaviour, as well as investigating how children and adolescents themselves understand gender to relate to prosociality. These studies also show how the choice of behaviours in these types of studies can drastically change results. In Study 1, the use of a few limited behaviours resulted in consistent female-typing. However, when a larger array of prosocial behaviours were utilised in Studies 3 and 4, much more complicated patterns of gender-typing emerged. Indeed, the qualitative characteristics of these behaviours proved central to gender-typing by adolescents. This further highlights the careful nature with which gender and prosocial behaviour research should be designed and

conducted. If studies only use types of prosocial behaviour gender-typed as feminine (for example, comforting others) this may skew results and show that girls are 'more' prosocial when this may not be the case. Furthermore, if only limited behaviours are used in studies, the 'default' gender-typing of these behaviours may be as feminine, as the broad gender stereotype about prosocial behaviour is that it is a 'girl thing to do', also skewing results. Notably, the behaviour 'helping' was gender-typed as feminine in Study 1, but in Studies 3 and 4 'provides physical assistance' was gender-typed as masculine. Therefore, the exact description and characteristics of behaviours used can be crucial to determining the results found and conclusions drawn.

Future research in the area of gender and prosocial behaviour should therefore address a number of considerations. Firstly, research should take a more detailed approach, looking at the nature of prosocial behaviour, in contrast to focussing on the frequency of prosocial action. For example, as demonstrated in Study 4, there is significant value to using more descriptive methods, especially in *combination* with quantitative ones, as they allow for much more detailed exploration of concepts and relationships. Of course, continuing commitment to experimental and quantitative methods is important. However, it is imperative to recognise that research in this area thus far has been *too* focussed on assessing differences in the rate of recurrence of prosocial action in boys and girls. This change in approach therefore also involves thinking about prosocial behaviours in a more qualitative and descriptive way and framing the research questions differently (for example, focussing more on *how* and *why* boys and girls perform different prosocial actions). Secondly, researchers should carefully evaluate the behaviours they choose to use, and with which age groups, in order to provide the best possible chance of obtaining accurate and useful information about the gender-prosocial behaviour relationship. Thirdly, when utilising methods that are more susceptible to the influence of social knowledge and stereotypes (such as self- and other-reports) researchers should be wary of the influence of gender

knowledge on participants' responses. Finally, researchers should explore the exact relationship between the **prosocial gender stereotype and gender differences in prosocial behaviour** in terms of how each informs and influences the other. Longitudinal research using a cross-lagged design could help to delineate this relationship by assessing how these variables relate to each other over time. For example, does knowledge of the prosocial gender stereotype or the gender-typing of behaviour at time 1 inform differences in behaviour at time 2? This type of study would help researchers pin point key developmental periods where knowledge may translate into behaviour or vice versus.

8.2.2 Gender-Schema Theory

Whilst not specifically studied in this thesis, it can be suggested that results from Study 1 show that children and adolescents have incorporated prosocial behaviour into their gender schemas – like many other behaviours that become gendered across development (Bem, 1981; Martin, 2000; Martin & Halverson, 1981). As such, results suggest that girls may have incorporated prosocial behaviour into their own-gender schema and boys may have done so into their other-gender schema – with both girls and boys aware that prosocial behaviour is ‘a girl thing to do’. This has important implications for gender schema theory, as these results suggest that prosocial behaviour may be cognitively categorised by children as more for girls than boys despite being a moral behaviour guided by moral rules. If this is the case, boys and girls will evaluate prosocial behaviour differently, both when deciding whether to perform this behaviour themselves, and when judging the behaviour of others. Specifically, girls will judge this behaviour as both more acceptable for them and more so of other girls. Contrastingly, boys will judge prosocial behaviour as less acceptable for them and less so of other boys. In addition, Studies 3 and 4 demonstrate how this cognitive organisation may change over development. Specifically, rather than the broad label of prosocial behaviour becoming

categorised as either 'for me' or 'not for me', specific prosocial behaviours may be organised differentially. For example, for a boy, provides physical assistance will be labelled as 'for me', and provides emotional support may be labelled as such for a girl.

The results from Studies 1, 3 and 4 give important insight into how influential the cognitive categorisation of prosocial behaviour may be to children and adolescents. If we view the social categorisations made by participants in the studies in this thesis as a representation of the cognitive organisation of these behaviours in children's gender schemas, it is clear that prosocial behaviours are subject to differential categorisation. As such when children are making decisions about whether to perform these behaviours, their gender schemas will be very influential on what the outcomes of those decisions are. As discussions from Study 4 show, and results from Study 5 suggest, the beliefs that children hold about gender-appropriate prosocial behaviour greatly influence the behaviours they choose to perform. Gender-schema theory provides a robust framework in which to evaluate the current research and is the most important theory to use when evaluating this research.

Studies have shown that children misremember gender inconsistent information, and that this increases with greater schematicity of the child (Bauer, 1993; Carter & Levy, 1988; Frawley, 2008; Welch-Ross & Schmidt, 1996). For example, children who are shown a girl performing a typically masculine behaviour (such as playing with a toy car), tend to recall this behaviour being performed by a boy at a later stage. Researchers argue that these results show that children are relying on their gender-schemas to aid memory recall. Future studies should seek to investigate whether prosocial behaviour is subject to misremembering. For example, if boys are shown being prosocial, or performing specifically feminine prosocial behaviours, do children remember these actions as being performed by a girl? This should give good insight into whether prosocial behaviour is incorporated into the gender schema of children and cognitively

categorised as feminine. This should also provide continuing evidence (in addition to that provided in this thesis) for the consequences that might result because of this cognitive classification; for example, the less positive judgement of boys' prosocial behaviour, or decreased performance of prosocial behaviour by boys.

8.2.3 Social Role Theory

In recent years, Eagly has proposed social role theory (Eagly, 1987; Eagly et al., 2000) as a framework for explaining gender differences in prosocial behaviour in adulthood (Eagly, 2009; Eagly & Crowley, 1986; Eagly & Koenig, 2006). Specifically, women perform more prosocial behaviours that fall in line with the characteristics of the female social role – such as comforting others and those that focus on maintaining relationships (Burlinson & Kunkel, 2006). Conversely, men may perform more prosocial behaviours that are physical and direct, involving risk, chivalry, and heroism. Indeed, meta-analyses have shown that men actually help more than women, particularly when this involves helping strangers, involves being chivalrous, or involves risk or danger (Eagly & Crowley, 1986). Until recently, the developmental origins of these differences had not been systematically investigated. However, Studies 3 and 4 have provided evidence that early adolescence is where this behavioural differentiation may begin. Adolescents at this age are experiencing an intensification of gender stereotypes (Hill & Lynch, 1983) and decreased gender stereotype flexibility (Alfieri et al., 1996; Bartini, 2006; Galambos et al., 1990; Huston & Alvarez, 1990; Stoddart & Turiel, 1985). They will therefore want to perform social behaviours that are in line with their own gender knowledge, and with the expectations of peers. Conversely, they will seek to avoid behaviours that are not in line with these expectations. As such, at this age, adolescents appear to identify feminine and masculine prosocial behaviours that are congruent with their gender roles, and the characteristics of those roles. This allows adolescents to be prosocial in a way that also satisfies the gender-related expectancies of peers. Study 2 highlighted how

this may be a particularly important process for boys, as they may have to find ways to act prosocially that are both morally good and socially acceptable. This has important implications for this area of research, as identifying changes in the gender-typing of prosocial behaviour can aid researchers understanding of how gender relates to prosociality from a developmental perspective. Future research should investigate why adolescents believe it is important to act in ways that are congruent with gender roles with regards to prosocial behaviour. For example, future studies could administer hypothetical prosocial scenarios to adolescents where boys and girls are performing gender typical and atypical prosocial actions. They could then ask how participants how they would judge the protagonist in the scenarios, and why they would or wouldn't be performing that action. This should give useful insight into adolescents' priorities and attitudes towards gendered prosocial behaviour.

8.2.4 Domain Theory and the Moral vs. Social Evaluation of Prosocial Behaviour

Study 2 in this thesis demonstrated that when presented with competing social information about moral actions, participants' judgements about boys' prosocial behaviour varied at age 12-13 years (judging this behaviour as less good). The scenarios in Study 2 were multifaceted – as both moral information (about the act) and social information (the gender of the protagonist) could be considered in children's evaluations. Although not explicitly measured in Study 2, adolescents may be using social-conventional knowledge about gender to evaluate prosocial behaviour when performed by boys. This is in line with domain theory, that posits that different strands of social knowledge can be used to evaluate scenarios, and are often subordinated to each other dependent on the context (Killen & Stangor, 2001; Smetana, 2006). This is an important finding, as prosocial behaviour should be evaluated by moral rules such as those based on the notions of right and wrong (Turiel, 1998). These findings suggest however, that

social-conventional knowledge is, at age 12-13, important or salient enough to affect adolescents' moral judgements. Furthermore, Studies 3 and 4 showed that, despite adolescents being aware that prosocial behaviour is good and a 'right' behaviour, they negatively judged peers based on the gender knowledge they have. These results all suggest that prosocial behaviour is not an exclusively moral behaviour, but is 'coloured' by gender throughout development.

Future research should have two aims in this respect. Firstly, children and adolescents should be asked to morally judge the prosocial behaviour of boys and girls, whilst also giving their reasoning for these judgements. This should clarify whether adolescents at age 12-13 years are indeed using social-conventional reasoning. Secondly, specific scenarios should be designed to examine the importance of social-conventional reasoning in adolescents' prosocial decision making. For example, consider a study where participants are presented with a scenario where one boy in a group of boys is deciding whether or not to perform a prosocial behaviour. Do adolescents judge that he shouldn't act, due to the social-conventional knowledge that prosocial behaviour is a feminine thing to do? And does this affect group functioning, and the boy's status within the group?

8.2.5 The Influence of Biology and Prosocial Gender 'Essentialism'

This thesis has focussed strongly on social influences on gender and prosocial behaviour, and how the gender beliefs that boys and girls hold that might influence their actions. However, as suggested briefly in Chapter 2, there may be biological variances between boys and girls that account for the differences found, particularly in observational studies that are less influenced by social factors. Certainly studies have demonstrated genetic differences between boys and girls (Zahn-Waxler et al., 2001), and in brain structure (Baron-Cohen, 2003) contributing to variation in empathic capability. These differences may provide girls with a greater motivation or capacity to identify scenarios that require prosocial behaviour. Furthermore, whilst not specifically focussing on gender as

of yet, studies have begun to explore and provide evidence for a genetic influence on prosocial behaviour across childhood (Hur & Rushton, 2007; Knafo & Plomin, 2006), as well as assessing the relative impact of biological and environmental/social factors on these behaviours. Investigating these competing influences in terms of gender differences in prosocial behaviour is vital if we are to understand whether boys and girls are ‘unavoidably’ different in their prosocial actions, both in quantity and quality. For example, are there biological differences between boys and girls that influence their prosocial behaviour (as suggested by observational studies of behaviour) that are exaggerated by social factors and stereotypes? Or is there very little variation in biology, with social factors creating and maintaining most of the differences we see? The studies in this thesis would certainly suggest a strong social influence but further research is needed to answer this vital question.

In addition to the question of the existence of biological differences in prosocial behaviour, there is also a question of **perceived** biological difference, or ‘gender essentialism’. Gender essentialism is the idea that men and women are fundamentally different and that this is unavoidable and defining (Blakemore et al., 2009). With reference to prosocial behaviour, it may be that children, adolescents and adults believe not only that girls are more prosocial than boys, but that they are fundamentally so – in the sense that this is a biological difference. This presents a further problem in teasing apart the relationship between beliefs about gender and prosocial behaviour, and the actual behaviour itself. If girls are thought to fundamentally be more prosocial than boys, this will help affirm the prosocial gender stereotype, in turn informing behaviour. Exploring children and adolescents’ gender essentialist views is key to exploring this relationship further.

8.2.6 Changing the Prosocial Behaviour of Boys and Girls: Intervention

Study 5 in this thesis showed that the gender beliefs that adolescents hold about prosocial behaviour predicted their reports of those same behaviours.

Importantly, this study provided results that were not expected, particularly in reference to girls' beliefs and behaviour reports. Reasons for this are discussed in more depth in Chapter 7, however, results (whether expected or not) did show just how important gendered beliefs are in influencing which prosocial behaviours adolescents choose to perform (or at least report performing). This raises the question of whether adolescents feel restricted in their prosocial behaviour, due to the judgements they will receive from peers upon performance of gender atypical prosocial behaviour. The continuing message of this thesis is that gender is important to children, and much more so adolescents, when they are choosing to perform prosocial behaviour and when evaluating the prosocial actions of others. This is an important and surprising finding, as prosocial behaviour, as a moral action, should be encouraged as universally as possible and not be restricted based on gender. Interventions should therefore focus on reducing the influence of gender on prosocial behaviour – concentrating on minimising the role of gender in prosocial behaviour performance, and in reinforcing the moral aspects of this behaviour over social ones. Possible ideas for intervention studies include curriculum based programmes that use a gender neutral protagonist in stories and activities to achieve this goal. For example, intervention projects in the U.S. by Arizona State University have tackled the issue of gender segregated groups in this way ("Sanford Harmony Program," 2013). In a prosocial behaviour intervention program, teaching children the importance of prosocial behaviour using a gender neutral character, or even emphasising existing gendering of behaviour and the limitations that poses could help to 'open up' behaviours to both boys and girls. It should also serve to emphasise the similarities between boys and girls prosocial behaviour, rather than the differences. These interventions should perhaps be targeted at early adolescents, as age 12-13 appears to be a key developmental stage in the differential gender-typing of prosocial behaviour, as well as differences in moral judgement. However, this could prove too difficult, and resistance could be too strong from adolescent

participants due to the importance of gender at this age. Future initiatives should therefore be designed and implemented with caution.

8.3 A Summary of the Changing Relationship between Gender and Prosocial Behaviour

In Chapter 6 it was proposed that the differential gender-typing of prosocial behaviour in adolescence represents a change from a homogeneous to heterogeneous view of prosocial behaviour. This section presents a summary of the main findings of this thesis in order to outline the changing relationship between gender and prosocial behaviour (see Table 8.1).

The first row in the table describes the way that prosocial behaviour is morally judged. In line with moral rules, prosocial behaviour is broadly judged as positive across development. However, in adolescence, variations in this do occur. Firstly, at age 12-13, when boys are performing prosocial behaviour, this is judged as less positive by peers. Secondly, in middle to late adolescence, prosocial behaviours that are gender atypical are also judged negatively by peers. This highlights the very important role that gender plays at this age in affecting the moral quality of prosocial behaviour. Largely however, prosocial behaviour remains positively judged. In terms of who performs more of this behaviour, two approaches are taken. In empirical studies, results show that girls perform more prosocial behaviour than boys across development, and that this increases in adolescence. Based on the gender-typing studies in this thesis, the third row in this table shows that children rate that girls are more likely to act prosocially and that this also increases in adolescence. The fact that these two rows largely parallel each other highlights how beliefs about gender and prosocial behaviour, and differences in the prosocial behaviour of boys and girls, may be linked and affect

Table 8.1 A Developmental Outline of the Changing Relationship between Gender and Prosocial Behaviour

	Before 12 years	At 12-13 years (key age)	After 12-13 years	In Adulthood
How is prosocial behaviour morally judged?	Good	Good (but less good when boys are performing prosocial behaviour, and less bad when boys are failing to perform prosocial behaviour)	Bad for gender atypical behaviours	Good
Who performs prosocial behaviour more according to empirical studies?	Girls (but with small effect sizes in support of this)	Girls (with larger effect sizes than childhood)	Girls (with larger effect sizes than childhood)	Women perform more prosocial behaviours that are relational and have a communal aspect
Who is more likely to perform prosocial behaviour (according to studies in this thesis)?	Girls	Girls (to a greater extent than in childhood)	Girls (to a greater extent than in childhood)	Men perform more prosocial behaviours that are physical, involve risk, and have an agentic quality
How is this behaviour gender-typed?	Feminine	Feminine > Feminine/Masculine	Feminine/Masculine	
How can we describe prosocial behaviour?	Homogenous	Homogeneous > Heterogeneous	Heterogeneous	Heterogeneous

each other. The last two rows of the table highlight how prosocial behaviour changes from a small collection of homogenous behaviours, to a larger collection of diverse, differentially gender-typed heterogeneous behaviours; as suggested by studies 3 and 4 in this thesis.

This model is based largely on the studies conducted in this thesis and therefore focusses on childhood and adolescence as the key periods of change in the relationship between gender and prosocial behaviour. However, some predictions about adulthood are and can be made. Firstly, the final column in the table, adulthood, shows the possible end result of the processes that occur in adolescence, with women and men performing prosocial behaviours that are congruent with the characteristics of their gender role. Reviews have suggested that this is largely true, with men and women performing prosocial behaviours that are more congruent with their gender roles (Eagly, 2009; Eagly & Koenig, 2006). Furthermore, the foundations for the division of prosocial behaviour between men and women in adulthood may be laid in adolescence (as suggested by Studies 3 and 4). Indeed, in adulthood, men in particular are largely still constricted in terms of how they show emotion and emotionality, having to adopt a fearless and infallible masculine persona for social acceptance (Goodey, 1997). Understandably, this may restrict their more emotionally based prosocial behaviour also. However, there may be specific experiences (for example, fatherhood) that soften and weaken the need to conform to these gendered concepts, and allow men to perform more prosocial behaviours traditionally considered to be in the female domain (Miller, 2011). However, studies have also shown that after an initial lapsing of traditional gender role conformity, men often fall back into a 'patriarchal habits' (Miller, 2011). Likewise, motherhood could also influence the types of prosocial behaviours women perform, as they gain greater agentic motives to protect their children. Investigating the division of prosocial behaviour in adulthood further poses an interesting and exciting avenue for future research.

This developmental summary may be extremely useful to researchers conducting studies on gender and prosocial behaviour in the future. It outlines the key periods of change in the relationship of gender to prosocial behaviour, and highlights how consistent the link between gender and prosocial behaviour is. It also emphasises that 12-13 years – early adolescence – appears to be a key age in many of the processes involved in shaping the relationship between gender and prosocial behaviour. What is possibly the most important message from this summary is that it is only in adolescence that prosocial behaviour first becomes problematic in terms of gender, especially for boys. Specifically, before 12 years, prosocial behaviour is judged as good when performed by both boys and girls. Even though girls may perform more of this behaviour, and even though it is gender-typed as feminine, all children can still perform this behaviour. They may also perform similar prosocial behaviours, but just do so within their own gender subcultures. It is only at 12-13 years, as the notion of prosociality being feminine becomes more salient and important to adolescents, that boys may experience problems when performing prosocial behaviour. As a result, this may act as the catalyst for the differential gender-typing of prosocial behaviour, as boys carve out their own ‘prosocial niche’.

This invites the question of which occurs first – changes in the gender knowledge of children or changes in the prosocial judgements of children? Answering this question definitively is beyond the scope of this thesis. However the summary presented above does allow for conjecture. It would appear that, in childhood, gender knowledge and prosocial judgement are largely unrelated. That is, children are aware that girls may be more prosocial than boys, but this has no influence on their judgements of those behaviours. At age 12-13 years however, changes in **gender knowledge** appear to affect **prosocial judgements**. Notably, the consolidation and intensification of gender stereotypes appears to affect how prosocial behaviour is morally judged for boys. In this respect, this summary suggests that it is changes in gender knowledge, or rather the salience of this

knowledge, that impacts children's moral view of this behaviour. From this point onwards, through the reinforcement given by peers, this relationship appears to become dynamic and self-fulfilling. Specifically, as gender knowledge affects moral judgements of prosocial behaviour, these judgements serve to reinforce and exaggerate the classifications made based on gender and to strengthen this knowledge. This, in turn, further informs the judgements made by children and adolescents, and so on. In conclusion, it appears to be the gender knowledge of children and adolescents that informs how prosocial behaviour is evaluated.

8.4 Limitations of the Current Research

There are a number of limitations to the current research, and these are mainly methodological. Firstly it can be argued that the studies in this thesis lack congruency across studies. For example, the measure used in Study 3 to assess adolescents' masculinity-femininity ratings of prosocial behaviours used a standard 5-point Likert scale. It also measured masculinity and femininity in terms of how much these behaviours are performed by each gender in relation to one another. This is compared to Study 1 that measured gender likelihood, and used a 3-point scale. These questions also had a forced choice element to them, encouraging participants to select one gender group as opposed to the other, or both, with no option for choices in between. Arguably, the use of a 5-point scale throughout may have allowed more concrete comparison and conclusions to be made *across* studies. However, the results from both Studies 1 and 3 are robust and give valuable insight into the gender-typing of prosocial behaviour. Furthermore, the progression from a 3- to a 5-point scale represented a pragmatic choice, undertaken as this body of research progressed and the research questions developed.

Secondly, the studies in this thesis have primarily focussed on investigating the stereotype side of the stereotype-behaviour relationship between prosocial behaviour and gender. This was in line with the aims of this research set

out in Chapter 2. To that end, only Study 5 in this thesis investigated the link between the two, and this could be considered a significant limitation. Collecting observational data and comparing this data with beliefs about gender would provide more significant insight into this relationship, and how differences in behaviour may inform the prosocial gender stereotype or vice versus. However, the studies in this thesis were designed to answer specific questions, and did so.

Thirdly, the studies in this thesis used participants from only four schools in total. These schools were all similar in terms of their demographic qualities, and achieved similar Ofsted scores. As a result, a large percentage of the participants in the studies in this thesis were white and were from middle class backgrounds. This means that the results presented in this thesis may be hard to generalise to larger, less homogenous populations. For example, people from different ethnic backgrounds or those of lower social-economic status. Further to this, these studies were conducted exclusively on residents of the UK. Therefore, these results may not generalise to children and adolescents of different cultures. However, these practical restraints were unavoidable, and to counter this, large sample populations were utilised as much as possible. In addition to this specific sample-based concern is the issue of culture and generalisation. The studies conducted in this thesis, and most of the studies cited and used in the reviews in this thesis were conducted in Western industrialised nations. It is therefore important to recognise that the results found and conclusions drawn may not be applicable to children and adolescents from different cultures. Nonetheless, these results are robust, and considering the importance and universality of many gender concepts across cultures, may be more broadly applicable.

A fourth limitation of this thesis is the lack of investigation in many of the studies of why participants made the choices they did. For example, assessing participants reasoning about the moral judgements they made in Study 2 would have provided great insight into whether increased use of social-conventional reasoning could account for these variations in judgement. This is highlighted by

the amount of useful information that was gleaned from the rich qualitative approach used in Study 4. Put simply, the results obtained from the studies in this thesis tell us a lot descriptively about the relationship between gender and prosocial behaviour, but little about the processes behind this association.

A final methodological limitation is that most of the studies in this thesis were explicitly investigating gender, and therefore may have 'cued' gender as something that participants should consider. This is particularly true of Studies 1, 3 and 4, as the possible relationship between gender and prosocial behaviour was explicitly highlighted to adolescents. In this sense, these studies may have produced over-exaggerated results with regards to the importance of gender (as opposed to studies that ask about prosocial behaviour and see if gender spontaneously becomes an issue). However, as this thesis was strongly focussed on gender, the studies were designed with this in mind and to give the maximum amount of information about the gender-prosocial behaviour relationship. Therefore, this approach was appropriate to meet this aim.

A broader limitation is that there were no studies that focussed on parents, teachers, or siblings, and how they gender-type prosocial behaviour. As these groups are 'key agents' of gender socialisation, inclusion of these sample populations may have provided valuable information about where the prosocial gender stereotype comes from. For example, in nomination studies parents consistently rate girls as more prosocial than boys (Bond & Phillips, 1971; Phillipsen et al., 1999; Shigetomi et al., 1981; Veenstra et al., 2008), as do teachers (Birch & Ladd, 1998; Côté et al., 2002; Hastings et al., 2000; Keane & Calkins, 2004; Ladd & Profilet, 1996; Russell et al., 2003; Shigetomi et al., 1981; Veenstra et al., 2008; Warden et al., 2003; Wentzel, 2002; Wentzel et al., 2007). Both parents and teachers could therefore be expressing the prosocial gender stereotype in these studies. Furthermore, older siblings have been shown to influence the relative masculinity and femininity of younger brothers and sisters, based on older sibling gender (Rust, 2000). Older siblings could therefore have an

impact on the prosocial behaviour of younger brothers and sisters by providing different gender role models as well as contrasting gendered messages about prosocial behaviour. In summary, inclusion of these groups would have formed a more complete picture of how the prosocial gender stereotype becomes socialised. However, this does provide a number of exciting avenues for future research – exploring how these groups gender-type prosocial behaviour, and how influential they may be on reinforcing these beliefs in children.

A final limitation is the lack of approaches within the thesis that assess the implicit attitudes held by children and adolescents. An idea explored in this thesis is that of prosocial behaviours being cognitively categorised as masculine or feminine. In this sense, children have an implicit belief about which behaviours are appropriate for boys and girls, which become explicit upon expression. It would be interesting to investigate what implicit attitudes children hold about gender and prosocial behaviour (using, for example, an implicit association task). In the studies in this thesis, children and adolescents have been able to regulate their explicit responses when filling in questionnaires. Since these studies assessed attitudes and beliefs this is not necessarily a problem. However, what is still unclear is whether these explicit attitudes match implicit beliefs held by children. If they are this would give some indication as to just how strong these beliefs are. If not, this would show that children have expressed these beliefs only when explicitly prompted. Implicit measures were not used in this thesis as they were not appropriate for young children, and were not possible in the given time frame of studies. However this provides an exciting avenue for future research.

8.5 General Conclusions

Prosocial behaviour is gender-typed across development, and there is support for the prosocial gender stereotype – that girls are more prosocial than boys (Eisenberg et al., 2007; Serbin et al., 1993). This is the first set of studies to investigate this directly, and they have provided convincing evidence. As such,

researchers investigating gender differences in prosocial behaviour should be cautious when designing studies, and interpreting results, due to the possible influence of the prosocial gender stereotype.

Not only is prosocial behaviour gender-typed across development, this changes as children grow older, notably in adolescence. The summary outlined in this chapter highlights how gender is important to prosocial behaviour throughout development, but that this association changes. The progression from the female-typing of prosocial behaviour in childhood, to the differential gender-typing of prosocial behaviour in adolescence, represents a complex interactional process between gender knowledge and prosocial judgement. Namely, that change in gender knowledge about prosocial behaviour affects how these actions become judged morally. This in turn, through the reinforcement and judgement given by peers, galvanises a process of gender differentiation of prosocial behaviours that may lay the foundation for differences in the prosociality of men and women in adulthood.

In this sense, prosocial behaviour cannot be thought of in a purely moral manner as it appears to also be subject to social information and categorisation related to gender. This is an important finding, as gender-typing typically leads to the limiting of behaviour, with gender atypical behaviours chastised and discouraged by peers. If prosocial behaviour is subject to a process of gender-typing similar to other behaviours and activities, such as toy choice, boys in particular may find themselves limited when it comes to prosocial behaviour; even after some prosocial behaviours become gender-typed as masculine in adolescence. This is obviously a serious issue, as prosocial behaviour should be open to everyone to perform, and should be universally encouraged as a moral behaviour.

This thesis also highlights the importance of considering other factors that inform and motivate boys' and girls' prosocial behaviour. Specifically, results from Studies 3, 4 and 5 demonstrate that 'gender' does not provide a definitive

explanation for the patterns in behaviour found. Factors such as ethnicity, audience effects, situational variations, and relationship to recipient, as well as individual differences in personality, genetic make-up, and empathic ability all form part of a complex dynamic model of motivation for prosocial behaviour. This is not to downplay the results found in this thesis, which are clear and robust. However it is worth recognising that gender, whilst clearly important, is most likely in interaction with many other factors influencing prosocial behaviour.

In conclusion, the present research has shown that the relationship between gender and prosocial behaviour is much more complicated and extensive than previously thought. The studies in this thesis have enabled the formulation of a comprehensive outline of how gender and prosocial behaviour are related throughout development; the most important message from this being that changes in gender knowledge, particularly in adolescence, appear to affect the way prosocial behaviour is judged. Through peer reinforcement, this leads to both girls and boys having their own distinct genres of prosociality – acting as the developmental precursor to the patterns seen in adulthood. This should help guide researchers in this area in the future and help us to appreciate that, when it comes to the prosocial behaviour of boys and girls, it does appear to be a case of quality over quantity.

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Appendices

Appendix I – Example of Letter to a School

Department of Psychology
Royal Holloway, University of London
Egham, Surrey, TW20 0EX, UK
www.pc.rhul.ac.uk

Ben A. Hine
PhD Student Psychology
Tel. +44 7870xxxxxx
x.xxx@rhul.ac.uk



Address of school

Dear Sir/Madam,

I am writing to you to ask for your help in completing the first study of my PhD at Royal Holloway University of London. My name is Ben Hine and I am going to be investigating the influence of gender on the judgement of various actions. The idea is to see who children judge as more likely to perform prosocial behaviours. Children will read different scenarios where a child performs different prosocial behaviours, such as helping, sharing, giving and comforting. They will then be asked a set of questions about who they believe is more likely to perform these behaviours, boys or girls.

The implications of these studies could have a large impact on education and the way prosocial behaviour is encouraged in both genders, especially with a focus on the cross-over between primary and secondary education. Your schools contribution to this possible educational change could be invaluable and I would greatly appreciate your help in being able to use some of your students as participants. The disruption to the children's daily routine would be kept minimal and to as shorter time as possible. Furthermore the activities they will be asked to do are not psychologically harmful in any way, and the study has been approved by the internal ethics committee at Royal Holloway.

If you feel that your school can help then please do not hesitate to contact me on 07870xxxxxx or email me at x.xxxx@rhul.ac.uk.

Thank you for your time,

Yours sincerely,
Ben Hine
BSc. (Hons)

**Appendix II – Parental Consent Form for Studies 1
and 2**

**Department of Psychology**

Royal Holloway, University of London

Egham, Surrey TW20 0EX, UK

www.rhul.ac.uk

Dear Parent/Guardian

My name is Ben Hine, BSc, and I am a PhD student in Psychology at Royal Holloway, University of London. For my PhD, I am carrying out a study looking at who children judge to be most likely to perform certain actions. I would greatly appreciate the participation of your child in this study because this not only forms a large part of my PhD thesis but will help research in the important area of behaviour development in childhood, with many applications in teaching and problem behaviour interventions. I hope the findings will shed light on why boys and girls are different in their positive behaviour in childhood and adolescence. My project is supervised by Dr Patrick Leman. If you would like to discuss any aspect of the research with Dr Leman you can contact him by email on x.xxxx@rhul.ac.uk or by phone on 01784xxxxxx. If you need to contact me, please email me on x.xxxx@rhul.ac.uk or call me on 07870xxxxxx.

All children who take part in this study will be asked to make judgements on simple stories of children engaged in different pro-social acts. The task will take approximately 7 minutes per child. Nobody except my supervisor and I will be allowed to see the results of the study and scores will be recorded using an anonymous identifying number only. Children invited to take part in the study will be allowed to withdraw from a session at any time if they do not wish to continue. If you do not wish for your child to participate in this study it will not affect their education in any way.

This study has been reviewed and approved by the Psychology Department internal ethical procedure at Royal Holloway, University of London. Mike Chesters, the Deputy Head Teacher, has also given permission for this study to be carried out. The members of the research team have been checked and cleared by the Criminal Records Bureau.

Please complete the consent form overleaf if you **do not** agree to your child taking part in this study. Please retain this sheet for your future information.

Thank you for taking the time to read this information.

Ben Hine, BSc

You may retain this sheet for reference.

Consent form for parents and guardians

Prosocial Behaviour judgement across childhood

A full explanation of the study is given overleaf with contact details to use if you wish to ask further questions.

Be assured that your son's or daughter's right to privacy and confidentiality will be respected at all times.

And understand that you may withdraw you son or daughter from the study at any point during the schedule of research. If your son or daughter indicates that he or she is unwilling to cooperate in the assessment session, their wishes will be respected.

Please return the section below to the class teacher by (INSERT DATE) if you DO NOT wish for your child to participate.



ID number.....

I do not consent to my son/daughter taking part in the research being conducted by Ben Hine

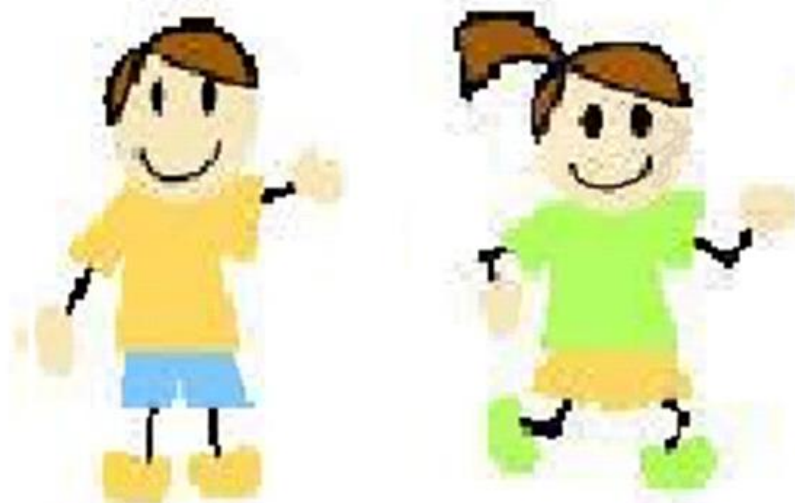
Signature of parent / guardian

Name of parent/guardian
(please print)

Name of child

Date

**Appendix III – Sample Vignettes (of a Boy
Performing Prosocial Behaviour) from Study 2**



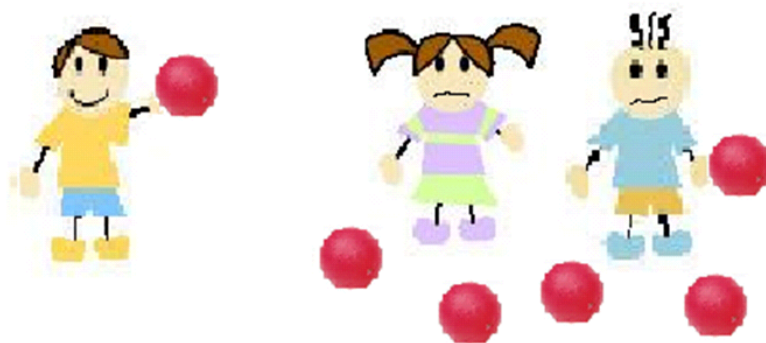
This is Simon and Sally



Simon has a book to read. Sarah and Shaun might like to read it too



Simon has shared his book. Now they can all enjoy the book together



Later the same day, Sarah and Shaun have dropped some balls they were carrying for a game. Simon saw this and is helping to pick them up.

Appendix IV – Parental Consent Form for Study 4



Department of Psychology
Royal Holloway, University of London
Egham, Surrey TW20 0EX, UK

www.rhul.ac.uk

Dear Parent/Guardian

My name is Ben Hine, BSc, and I am a PhD student in Psychology at Royal Holloway, University of London. For my PhD, I am carrying out a study investigating how boys and girls view gender and prosocial behaviour as linked. I would greatly appreciate the participation of your child in this study because this not only forms a large part of my PhD thesis but will help research in the important area of behaviour development in childhood, with many applications in teaching and problem behaviour interventions. I hope the findings will shed light on why boys and girls are different in their positive behaviour in adolescence and beyond. My project is supervised by Dr Patrick Leman. If you would like to discuss any aspect of the research with Dr Leman you can contact him by email on x.xxxx@rhul.ac.uk or by phone on 01784xxxxxx. If you need to contact me, please email me on x.xxxx@rhul.ac.uk or call me on 07870xxxxx.

All children who take part in this study will be asked to perform a variety of tasks (such as placing prosocial behaviours along good/bad and masculine/feminine scales), and will be asked to discuss their choices further. The study will be recorded on tape. This is so that the answers given by children can be transferred into the written form and analysed. Nobody except my supervisor and I will be allowed to see the results of the study and scores will be recorded using an anonymous identifying number only. Children invited to take part in the study will be allowed to withdraw from a session at any time if they do not wish to continue. If you do not wish for your child to participate in this study it will not affect their education in any way.

This study has been reviewed and approved by the Psychology Department internal ethical procedure at Royal Holloway, University of London. Stephen Mann, Deputy Head Teacher, has also given permission for this study to be carried out. The members of the research team have been checked and cleared by the Criminal Records Bureau. Please complete the consent form overleaf if you **do not** agree to your child taking part in this study. Your child may or may not be chosen on the date of the study. Please retain this sheet for your future information.

Thank you for taking the time to read this information.
Ben Hine, BSc

You may retain this sheet for reference.

Consent form for parents and guardians

Focus Group Study about Gender and Prosocial Behaviour

A full explanation of the study is given overleaf with contact details to use if you wish to ask further questions.

Be assured that your son's or daughter's right to privacy and confidentiality will be respected at all times.

And understand that you may withdraw you son or daughter from the study at any point during the schedule of research. If your son or daughter indicates that he or she is unwilling to cooperate in the assessment session, their wishes will be respected.

Please return the section below to your tutor by 10/05/12 if you **DO NOT wish for your child to participate.**

ID number.....

I do not consent to my son/daughter taking part in the research being conducted by Ben Hine

Signature of parent / guardian

Name of parent/guardian
(please print)

Name of child

Date

**Appendix V – Sample Masculinity-Femininity
Questionnaire from Study 3**

In the next questions, we are interested in you ratings about prosocial behaviour. To answer these questions, after reading each behaviour, fill out the circle showing how masculine or feminine you think the behaviour is.

	Very Masculine (Something mainly boys do)	Slightly Masculine (something that mostly boys do but some girls do)	Neutral (Something both boys and girls do)	Slightly Feminine (something that mostly girls do but some boys do)	Very Feminine (Something mainly girls do)
1. Stands up for others	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2. Provides emotional support	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3. Helps others develops skills	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4. Compliments and encourages others	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
5. Inclusive	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
6. Provides physical assistance	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
7. Humorous	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
8. Peacemaker	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
9. Shares	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
10. Avoids fights	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
11. Keeps confidences	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

12. Expresses happiness	0	0	0	0	0
13. Confronts others when wrong	0	0	0	0	0
14. Provides community service	0	0	0	0	0
15. Honest	0	0	0	0	0
16. Avoids hurting feelings	0	0	0	0	0
17. Admits mistakes	0	0	0	0	0
18. Apologizes	0	0	0	0	0
19. Does not make fun of others	0	0	0	0	0
20. Coaches others in social skills	0	0	0	0	0
21. Does not brag	0	0	0	0	0
22. Good sport	0	0	0	0	0
23. Willing to play	0	0	0	0	0
24. Calm – does not yell	0	0	0	0	0

**Appendix VI – Sample Focus Group Manuscript
Page**

127 E: This is keeps confidence, so that's when someone tells you something in confidence, so they'll like
128 say I'm telling you this, don't tell anyone else

129 P: Oh

130 E: And when you don't tell anyone, that's keeping a confidence, so that's kind of what that means.
131 So, when you think of someone who keeps confidences, so keeps secrets who do you think that is

132 P: Boys

133 Inaudible

134 P: I think yeah because, I, I personally don't tell people secrets, I know that a lot of girls do that

135 P: Yeah

136 P: They'll say right I won't tell anyone, and then they'll go to their best friend and be like you can't
137 tell anyone and it just spreads

138 E: So you think boys keep confidences

139 P: Yeah

140 P: I've got inclusive

141 Inaudible

142 E: Yeah so it's like so if someone wanted to play with your group you know you're inclusive, you'd let
143 them play

144 P: I'd probably say it was more of a boy thing

145 Inaudible discussion

146 P: Because girls have their really close friendship groups and boys are like yeah come on

147 P: I think it'd be more like in the middle, because some boys like when they're playing football and
148 stuff would be like come and play, but if someone's feeling left out girls are more likely to feel sorry
149 for them and kind of welcome them in

150 P: I sort of agree with X and the original point because say boys are playing football they'll be like
151 you can play let's see what you got kind of thing, whereas with girls it's like I wanna see what you do,
152 how you react to your surroundings before I let you in. And if you act the wrong way, you can be like
153 err I don't really think I wanna talk to you kind of thing. So I think it's more masculine

154 Inaudible discussion

155 E: Mhm

156 P: I think this is a very feminine thing, compliments and encourages each other

157 P: feminine

**Appendix VII – Parental Consent for Studies 3 and
5**



Department of Psychology
Royal Holloway, University of London
Egham, Surrey TW20 0EX, UK

www.rhul.ac.uk

Dear Parent/Guardian

My name is Ben Hine, BSc, and I am a PhD student in Psychology at Royal Holloway, University of London. For my PhD, I am carrying out a study how boys and girls judge different actions, such as sharing and helping, and how they rate certain actions in terms of masculinity and femininity. I would greatly appreciate the participation of your child in this study because this not only forms a large part of my PhD thesis but will help research in the important area of behaviour development in childhood, with many applications in teaching and problem behaviour interventions. I hope the findings will shed light on why boys and girls are different in their positive behaviour in childhood and adolescence. My project is supervised by Dr Patrick Leman. If you would like to discuss any aspect of the research with Dr Leman you can contact him by email on x.xxx@rhul.ac.uk or by phone on 01784xxxxx. If you need to contact me, please email me on B.Hine@rhul.ac.uk or call me on 07870xxxxxx.

All children who take part in this study will be asked to make judgements on simple stories of children engaged in different pro-social acts. Children will also be asked to complete questionnaires about their prosocial behaviour, attitudes towards prosocial behaviours, and the pressure they feel from peers and parents to act like their gender role. The task will take approximately 20 minutes per child, and children will complete the questionnaire in a class setting. Nobody except my supervisor and I will be allowed to see the results of the study and scores will be recorded using an anonymous identifying number only. Children invited to take part in the study will be allowed to withdraw from a session at any time if they do not wish to continue. If you do not wish for your child to participate in this study it will not affect their education in any way.

This study has been reviewed and approved by the Psychology Department internal ethical procedure at Royal Holloway, University of London. Stephen Mann, the Deputy Head Teacher, has also given permission for this study to be carried out. The members of the research team have been checked and cleared by the Criminal Records Bureau.

Please complete the consent form overleaf if you **do not** agree to your child taking part in this study. Please retain this sheet for your future information.

Thank you for taking the time to read this information.

Ben Hine, BSc

You may retain this sheet for reference.

Consent form for parents and guardians

Pro-Social Behaviour judgement across childhood

A full explanation of the study is given overleaf with contact details to use if you wish to ask further questions.

Be assured that your son’s or daughter’s right to privacy and confidentiality will be respected at all times.

And understand that you may withdraw you son or daughter from the study at any point during the schedule of research. If your son or daughter indicates that he or she is unwilling to cooperate in the assessment session, their wishes will be respected.

Please return the section below to (FILL IN NAME OF TEACHER AS APPROPRIATE) by (INSERT DATE) if you **DO NOT wish for your child to participate.**

ID number.....

I do not consent to my son/daughter taking part in the research being conducted by Ben Hine

Signature of parent / guardian

Name of parent/guardian
(please print)

Name of child

Date

**Appendix VIII – The Felt Pressure Scale from
Study 5**

In these questions you will be asked questions about what others might think about things you do.

	Not at All	Not Really	A Little Bit	Pretty Much	A Lot
1. Other kids would be upset if I wanted to play with girls' toys.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2. My parents would be upset if I wanted to do an activity that only girls do.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3. I would get really mad if someone says I was acting like a girl.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4. Other kids would be upset if I did things that only girls usually do.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
5. My parents would be upset if I wanted to play with girls' toys.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
6. I think it would be wrong for me to play with toys that girls usually do.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
7. I think it would be wrong for me to do activities that girls usually do.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
8. I would still like myself if I was acting like a girl.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
9. Other kids would be upset if I didn't want to play with boys' toys.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
10. My parents would be upset if I didn't want to an activity that boys do.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
11. I would feel really proud if someone says I was acting like a boy.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
12. Other kids would be upset if I didn't want to do things that boys are supposed to do.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

	Not at All	Not Really	A Little Bit	Pretty Much	A Lot
13. My parents would be upset if I didn't want to play with boys' toys.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
14. I think it would be good for me to play with toys that boys usually do.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
15. I think it would be good for me to do activities that boys usually do.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
16. I think it is important for me to act as much like a boy as I can.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
17. My relatives (aunts, uncles, and cousins) would be happy if I wanted to do things that girls usually do.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

**Appendix IX – GTGPB Scale and Self-Report
Scales from Study 5**

Prosocial Behaviour - Beliefs

In the next questions, we are interested in how you feel about your own gender's prosocial behaviour. To answer these questions, after reading each description of a behaviour, fill out the circle showing how much you agree/disagree with the statement.

	Disagree	Somewhat Disagree	Neither Agree nor disagree	Somewhat Agree	Agree
1. I think that boys should provide physical assistance (for example, when someone falls down)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2. I think that boys should be willing to hang out (for example, going to a friends house even if there is nothing to do)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3. I think that boys should stand up for others (for example, when someone is making fun of someone in class)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4. I think that boys should comfort their friends (for example, when they are upset)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
5. I think that boys should avoid fights (for example, when someone is putting your friend(s) down you ignore it)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
6. I think that boys should coach others in social skills (for example, helping their friends get along if they are having trouble)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
7. I think that boys should do things for the community (for example, volunteering to pick up litter)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
8. I think that boys should be inclusive (for example, letting people join in even if they are not necessarily liked that much)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
9. I think that boys should avoid hurting peoples' feelings (for example, lying to someone about how they really think)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Prosocial Behaviour - Actions

In the next questions, we are interested in your own prosocial behaviour. To answer these questions, after reading each description of a behaviour, fill out the circle showing how much you perform that behaviour in every day settings.

	Never/ Almost Never	Just a Few Times	Sometimes	Often	Always/ Almost Always
1. How often do you provide physical assistance (for example, when someone falls down)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2. How often are you willing to hang out (for example, going to a friends house even if there is nothing to do)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3. How often do you stand up for others (for example, when someone is making fun of someone in class)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4. How often do you comfort their friends (for example, when they are upset)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
5. How often do you avoid fights (for example, when someone is putting your friend(s) down you ignore it)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
6. How often do you coach others in social skills (for example, helping their friends get along if they are having trouble)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
7. How often do you do things for the community (for example, volunteering to pick up litter)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
8. How often are you inclusive (for example, letting people join in even if they are not necessarily liked that much)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
9. How often do you avoid hurting peoples' feelings (for example, lying to someone about how they really think)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>